WORLD HEALTH ORGANIZATION ORGANISATION MONDIALE DE LA SANTI

RECONSTRUCTION

OF THE

HEALTH SERVICES OF LEBANON

REPORT
OF THE WHO/LRCS HEALTH
ASSESSMENT AND PLANNING MISSION

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

6 February – 13 April 1983

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WHO/LRCS HEALTH ASSESSMENT AND PLANNING MISSION TO LEBANON

6 February - 13 April 1983

1. INTRODUCTION

1.1 PURPOSE OF THE ASSESSMENT AND PLANNING MISSION

In the wake of eight years of armed conflict in Lebanon, the Ministry of Health (MOH) of the Government of Lebanon requested the World Health Organization (WHO) to send a multidisciplinary health sector assessment and planning mission to Lebanon. The main task of the mission was to propose actions to be taken in 1983 - 1986 to reconstruct the health services sector of Lebanon and to improve the coverage and quality of health care throughout the country.

It was agreed that the mission would specifically:

(1) Describe the trends in the health sector, with emphasis on main areas of competence of the mission's members,

(2) Respond to a National Health Policy statement proposed in December 1982 by the Minister of Health, H. E. Dr Adnan Mroueh, and

(3) Develop a framework for planning and broad services programming in Lebanon's health sector, with recommendations as to actions to be taken in 1983-1986 in order to move ahead within that framework.

1.2 APPROACH OF THE MISSION

The mission was organized and supported by the WHO Regional Office for the Eastern Mediterranean (EMRO), the WHO Headquarters and the League of Red Cross Societies (LRCS), with on-site collaboration of the WHO Programme Coordinator in Lebanon. The mission's composition, the members' roles, and the national counterparts assigned to work with the mission are shown in Annex B.

Financial analyses, especially of the financial implications of changes proposed by the Ministry of Health, were prepared for the mission by USAID consultants Drs James Jeffers and Paul Zukin. Their report, which deals with health sector organization as well as finance, is presented in Annex D, and several sections of it are also incorporated in the present WHO/LRCS Report.

The mission worked in Lebanon from the 6th to the 26th of February, 1983. Its members met with the Minister and senior officials of the Ministry of Health, reviewed documents, conducted interviews, and visited health agencies and treatment facilities in Beirut and North and South Lebanon. Their annexed reports form the basis of this report. Annex C provides additional information on the mission's activities and on development of this report. A preliminary summary of the report was transmitted to the Ministry of Health in March 1983, while urgent recommendations were sent by cable early April. The framework of the proposed action planning and review process was developed in April 1983 with assistance from WHO headquarters.

1.3 ACKNOWLEDGEMENTS

The mission's work would have been impossible without the full collaboration of the Minister of Health, H.E. Dr Adnan Mroueh, many Lebanese officials, and the national counterparts (listed in Annex B) appointed to work with mission members.

Faculty members and graduate students of the Department of Health Sciences of the American University of Beirut, many of them members of advisory task forces appointed by the Minister of Health, collaborated with the Mission. They made available documents and information that they had collected and

organized. Dr Nabil Kronfol (Associate Professor and Chairman, Department of Health Services Administration, AUB, and Special Advisor to the Minister of Health), was the principal coordinator for the mission's interactions with the Ministry of Health, in addition to being a principal interpreter of the changes in health sector organization and finance proposed by the Minister.

Besides cooperation of officials of the various Lebanese agencies named in the body and annexes of this report, the mission benefited from the collaboration of various international agencies in Lebanon which shared their information, experience and views regarding the health sector. Special assistance was provided by Mr Guy van Dooselaere, Resident Representative, UNDP, and his staff, and by UNICEF and other UN agencies.

The mission benefited greatly from discussions with EMRO staff in Alexandria, Egypt, immediately after leaving Lebanon, and is also indebted to EMRO and WHO Headquarters for administrative support for developing the present Report.

1.4 STRUCTURE OF REPORT

This report is structured in the following way:

Section 1:	Introduction
Section 2:	Summary of the mission's findings, conclusions, and recommendations.
Section 3:	Description of the current situation of the health sector.
Section 4:	National health policy as proposed by the Ministry of Health.
Section 5:	Detailed conclusions and recommendations by the mission.
Section 6:	Action plan for implementation by the Government.
Annexes A-C:	Contained in this document.
Annexes D-P:	Contained in a separate document.

The body of this report takes precedence over the annexed consultants' reports, which are provided in order to show in greater detail the information and analyses upon which the mission's overall report is based. References for the various areas covered in this report are found in the annexes, and acronyms used in both the report and the annexes are given in Annex A.

2. SUMMARY OF THIS REPORT

This Summary contains five sections: (2.1) Current Situation, (2.2) National Health Policy and Opportunity for Change, (2.3) Conclusions and Recommendations on Policy, (2.4) Conclusions and Recommendations on Programmes, and (2.5) Action Plan.

2.1 CURRENT SITUATION OF THE HEALTH SECTOR

After eight years of armed conflict, Lebanon's health sector needs to be rebuilt and re-established on a basis which will permit the Government to fulfill its commitment to the health and well being of its citizens.

At present, the organization, financing, and delivery of health services are fragmented and chaotic. The population has little confidence in Government health services. The Ministry of Health, weakened during the war years, has little capacity to deliver health services itself and sees two thirds of its budget paid to the private sector as uncontrolled reimbursement for private hospital services of uncertain quality and necessity. Other major parts of the health services system are out of the Government's control, resulting in problems such as rising health sector costs, illegal pharmacies, sale of unnaproved and counterfeit drugs, and lack of attention to first contact health services and continuity of care. There are shortages of nurses, of middle level health sector personnel, and of training facilities for them. Although there is already about one doctor for every 1 250 inhabitants and two long-established medical schools continue to train physicians for Lebanon's three million people, two unauthorized medical schools have also opened, and most newly licensed physicians are graduates of foreign schools, admitted to Lebanon without adequate determination of their competence. Most health sector resources are overly concentrated in Beirut.

2.2 NATIONAL HEALTH POLICY AND OPPORTUNITY FOR CHANGE

Lebanon's present national climate of hope, optimism, and expectation of change offers the country a unique opportunity to overcome many of her health sector problems. The Government's commitment to a new health policy, proposed by the Minister of Health in December 1982, will make it possible to seize that opportunity and meet a commitment to "provide personal and non-personal, curative and preventive, promotive and rehabilitative health services to the Lebanese population -- irrespective of one's ability to pay for such services."

In the same presentation, the Minister summarized a new health policy and some of the changes it implies for the health sector, focusing on establishment of "Area Health Authorities" (AHA), each of which would serve over 200 000 people:

> "This model calls for the pooling of all resources at the area as well as central levels.... interaction and partnership with the private sector institutions at all levels and wherever needed.... active participation and commitment of the community leaders - in the decision-making process - .... the ... Ministry of Health .... (would be) the primary and most important manager of health services in Lebanon and has the greatest authority and responsibility in the health care delivery system .... The implementation of these activities require extensive capital and recurring financing. ... The financing of the health services will be the responsibility of the National Social Security Fund, itself rejuvenated through a well conceived system of fair taxation and co-sharing mechanism, between the citizens of Lebanon, the employers, and the State."

Implementation of the new health policy will require reorganization of the health sector and of its financing, and a greatly strengthened Ministry of Health.

2.3 CONCLUSIONS AND RECOMMENDATIONS ON POLICY

In response to its observations and to the proposed new National Health Policy, the Assessment Mission has developed a number of conclusions and recommendations for the following areas of Lebanon's health services delivery system. These are presented in detail in Section 5 of this report, and only briefly summarized here.

2.3.1 National Health Policy

The mission concluded that implementation of the National Health Policy proposed by the Minister of Health is feasible but that full implementation would require 10 to 15 years. The mission recommends that immediate steps be taken to begin to implement it, initially in Beirut, if Government fully and publicly backs it and reinforces the Ministry and its efforts to re-organize and re-build the health sector.

2.3.2 National Health Planning

The establishment of a National Health Planning Unit in the MOH will greatly strengthen the Government's ability to plan and carry out changes in the health sector, including those recommended by this mission. In order to carry out its functions of developing and analyzing information, reporting the results and their implications for and within national health policies and plans, developing and revising plans, assisting and monitoring their implementation, and making policy recommendations, the unit will need to include and have access to both technical planning experts and experienced operational and management personnel. The relationships which have now been established with the American University of Beirut, and the continued activity of the joint task forces appointed by the Minister, help assure that the needed human resources present in Lebanon will continue to be available and utilized. Outside technical advisors will also be available to the unit as needed. The Planning Unit should immediately begin national surveys of epidemiology; health knowledge, attitudes, and practices; health manpower; and hospitals. It should use early valid results of those surveys as partial bases for policy feedback and for development of national plans for health manpower development, epidemiological services, primary health care, a health center network, and hospital facilities.

2.3.3 Organization of the Health Sector

The health services delivery system is fragmented in a multiplicity of uncoordinated public and private agencies Legislation should be enacted (preferably by the end of emergency powers on 6 May 1983) to change the structure of the health sector by merging into the Ministry of Health the

health sections of the Ministry of Labor and Social Affairs and of the Ministry of the Interior. The Government should also mandate the establishment of autonomous local Area Health and Social Affairs Authorities (AHAs) to arrange for quality health care for all Lebanese. Implementation should begin in Beirut and include jurisdiction over hospitals and other health resources within each area. Government should place major emphasis in budgets and incentive systems on primary health care and on preventive programmes to meet the major needs of Lebanon's population.

2.3.4 Financing of the Health Sector

A national insurance financing mechanism for payment of medical services needs to be established which is standardized and uniform for the whole country and which is acceptable to the providers of services, the service users, and the payors of services. The Government should establish the legal and administrative structure for a "National Health Security System", by initially (a) consolidating all public sector health services cost reimbursements in one financing agency and (b) establishing a uniform fee schedule for health services. Each of these latter actions is also recommended in its own right. High level policy decisions will be needed to guide the work of experts developing detailed plans for the NHSS. Limits should soon be established on the amounts of Government funds available for reimbursement of private sector health care services, and the Government should establish, monitor, and enforce quality standards for all health services for which it pays.

2.3.5 Management Systems

Management systems from the central levels to the most peripheral levels through the proposed decentralized AHAs, need to be established or strengthened or reintroduced, and there is need to consider the relationships and interactions among those systems. Specific areas include personnel management, logistics, maintenance, information systems, financial systems, planning, and monitoring, quality assurance, and evaluation. Government must urgently develop and apply effective mechanisms to ensure adequate and acceptable performance, in accordance with clearly specified terms, by hospitals, physicians, and others employed or contracted to provide or manage health services.

2.3.6 Health Services Delivery in the Metropolitan Area of Greater Beirut

Government has greater contact with organizations and inhabitants in Beirut, which also contains a high proportion of the nation's population. Reorganizing and operating the coordinated health services in Greater Beirut would provide needed experience on which to base development of other AHA's elsewhere in Lebanon. A master plan for health services delivery in the metropolitan area of Greater Beirut is needed to provide a framework for orderly growth and rational expansion based on the population's health needs and to prevent uncontrolled and unbalanced growth.

2.4 CONCLUSIONS AND RECOMMENDATIONS ON PROGRAMMES

2.4.1 Health Manpower

There is no national health manpower plan, and health manpower and training are imbalanced in several ways. More physicians are not needed, but new (unauthorized) medical schools have begun to function. At the same time, there are shortages both of nurses and paramedical personnel and of training facilities for them. Health manpower is excessively concentrated in urban settings. The many foreign medical graduates are not trained for Lebanon, and the health training programmes in Lebanon are predominantly oriented to curative care and hospitals, not comprehensive health care. More training programs are needed soon for nurses and middle level health personnel. A national health manpower survey must be carried out as a basis for a national health manpower plan for all levels of health personnel, including physicians. A National Medical Council should be established, responsible for recognition of degrees, licensing examinations, licensing and registration of health professionals, monitoring the quality of care, applying the medical code of ethics, and determining the number of students who are to study medicine or other health professions. Position-specific management training of health services personnel must be provided. Health personnel training should be reoriented to help translate the new national health policy into reality, emphasizing primary health care, prevention, community and patient relations, and necessary management skills. Government health worker salaries need to be increased and tied to performance.

2.4.2 Preventive Programmes and Epidemiology Services

The Ministry of Health is responsible for preventive programmes which affect the population in general. Lack of basic health information poses a serious constraint in identifying health problems objectively, and in setting priorities. There is need to have a capable central and provincial structure to direct, monitor and evaluate public health activities. Early action is necessary to re-establish epidemiological services to provide key information for decision making in health sector reconstruction. A national epidemiological survey of morbidity and ongoing epidemiological services (including surveillance) are needed as bases for health services plans and operations. The Directorate of Public Health must be reactivated and supported, under the leadership of an epidemiologist, and local public health programmes must be strengthened (including provision of experienced and responsible leadership at the provincial level and the re-training and in-service training of local health workers). An epidemiological and health KAP survey of clients and the general population should be carried out as one of the first steps toward strengthening first contact care (PHC).

2.4.3 Maternal and Child Health

The concepts of maternal and child health have long been known in Lebanon, but they are not well applied at present. Special attention must be paid to high risk groups such as pregnant women, infants, and pre-schoolers. The full range of immunizations (DTP, Polio, Measles) should be provided on a national basis, with adequate record maintenance. If poliomyelitis constitutes a threat, vaccination should at least be provided to all susceptibles in the focal areas of the disease. Growth charts should be reintroduced for the regular monitoring of growth and development, at least among small children. If satisfactory nutritional status among preschool children is confirmed, MCH programmes should be directed preferably to the mother and child up to 2 years of age and underfive clinics may be uneconomical. Traditional birth attendants should be integrated and retrained.

2.4.4 Primary Health Care

Attention to primary health care is important in reconstruction efforts, since the present system, created with little or no attention to first contact care, continuity of care, and other primary health care concepts, is collapsing under the financial strain of inappropriate use of hospitals and escalating medical care costs. Primary health care should form the basis for the health care system and should be given major emphasis by the Government of Lebanon in order to demonstrate its concern for the people's health and to make most effective use of health care resources. Primary health care (in the sense of first-contact care) in Lebanon must be provided in ways which meet the needs and the reasonable expectations of all the people. This may require that doctors and nurses based in health centres and in some hospitals provide such first contact preventive, promotive and curative care in all communities and with full support from the Government of Lebanon. A few health center based demonstration projects (in Beirut and elsewhere) should be established soon, to provide comprehensive PHC, with community participation, with continuity of care, and with adequate management, technical, and hospital support. These would provide experience on which to base further decisions and programs.

2.4.5 Health Facilities

There are major issues regarding possible increases in the number of Government hospital beds. The Government should develop a National Master Plan for Public and Private Hospital Facilities. That plan should be based on assessments of needs for hospital beds, on financial plans and projections, and on Government policy decisions regarding such matters as how to meet primary health care and outpatient service needs and what proportion and types of hospital beds and services should be provided through government facilities. Government decisions regarding further hospital development in Lebanon should not be made until a comprehensive study has been made covering the need for hospital treatment and for dispensaries and health centres. The investigation would have to consider plans for primary health care and hospital construction by private and voluntary sources.

Private hospitals play an important role in Lebanon. It is in the "voluntary" private sector that the country's major hospital care takes place. In 1982 the MOH utilized and paid for approximately 1 184 beds per day in the private sector. The government pays for some 40 000 acute care hospitalizations per year in the private sector. Government hospitals are out-dated, understaffed, and under-used, suffering the stigma of being places to go to only if the family cannot possibly pay. Only 690 public hospital beds are operational (and only 20 in Beirut), out of the existing total of 9 972 hospital beds for acute and chronically ill-patients, but there is the capacity to easily double the number of functioning MOH beds.

The Government needs to increase the benefits which it and patients receive from the very large amounts of funds paid to private sector hospitals through the MOH. The Government should use reimbursement for services provided as a means of expanding MOH control over private hospital beds, especially over the use and quality of the private sector hospital services for which it pays.

The mission's recommendations regarding construction and reconstruction of public hospitals are offered with the caveat that they should only be considered if needed improvements in organization and management seem very likely to take place, if problems of staffing and recurrent costs can be resolved, and if justified on the basis of results of a thorough survey/study of health facilities. If the Government's capacity to manage and utilize its own hospitals could be sufficiently strengthened, and if detailed analyses indicated that increasing public sector beds would be financially feasible and beneficial (as does not seem to be the case, in comparison with the alternative of increased control and improved selective use of the private sector), then the Government might consider increasing the number of beds in the public sector by: upgrading, equipping and staffing 580 existing but non-operational public hospital beds; installing a 200 bed temporary public hospital in Beirut; and constructing a new public hospital in Beirut with 300 beds, also to be used for training of nurses, paramedical, and public health staff, with emphasis on community health and primary health care. Those beds, added to the newly started renovation of the 200 bed Quarantina hospital in Beirut and the planned 130 bed temporary hospital in Saida, would raise the total national bed/population ratio to approximately 3.7 beds per 1 000 inhabitants.

2.4.6 Drugs and the Pharmaceutical System

The drug and pharmaceutical system is out of control of the Government. Illegal pharmacies are operating. Counterfeit, ineffective, and otherwise dangerous drugs are present on the market. Forceful actions are necessary in order for the Government to gain needed control over the drug sector, decrease the hazards which that sector now presents to the health of the people, increase the health benefits of money spent on drugs, and control rapidly rising drug costs. A strong national policy on drugs should be established. Drug and pharmacy sector legislation should be strengthened and enforced. Illegal pharmacies should be closed. Drug samples should be sent to recognized international drug testing laboratories (with plans to later establish a National Drug Quality Assurance Laboratory in Beirut). Ineffective and otherwise dangerous drugs must be controlled. The number of drugs on the market must be decreased, initially by forcing removal of unapproved drugs and inventorying and registering all drugs on the market in Lebanon, then by reviewing all drugs (including those previously approved and those newly submitted for approval) and allowing marketing only of those which are safe, effective, and needed (based on WHO list of essential drugs). The newly created National Office of Drugs needs sufficient authority, resources, and Government support to carry out its mandate. Studies on drug utilization should be done, and vital information about drug use should be distributed to providers of health services, patients, and the general public.

2.4.7 Emergency Medical Services

The metropolitan area of Beirut lacks a quality medical emergency care services network, and one should be implemented.

2.4.8 Blood Transfusion Services

There is a shortage of blood for transfusion in Lebanon, and transfusion services are fragmented and of uneven quality. A National Blood Transfusion Service, which should be established, incorporating the resources of the existing transfusion services, with the Lebanese Red Cross responsible for all operations. A national organizing committee should be appointed by the Minister of Health to plan and initiate that service.

2.4.9 Laboratories

Adequate health laboratory services, including regional laboratories, need to be developed, especially to support primaty health care and preventive services throughout Lebanon. An Advisory Committee for the Central Public Health Laboratories should be formed, to enable better coordination between the various sections of the laboratories.

2.5 ACTION PLAN

To gain the full benefit of the recommendations contained in this report, the Ministry of Health should direct the implementation of an action plan based on five parallel phases of work, as illustrated on page 15.

I. Enacting legislation. The purpose of the first phase is to enact the legislation required to implement the National Health Policy as proposed by the Ministry of Health. This legislation will include new measures as well as modification of existing regulations.

II. Formulating supporting policies. In the second phase, the Government will formulate and start implementing national policies in order to restructure the health sector as decided by legislation. These policies will include guidelines concerning social, economic, financial, technical and administrative aspects of the National Health Policy.

III. Building resources and systems. The purpose of the third phase is to make the re-structured health sector operative, consistent with health and other national policies. To this end, the Ministry of Health will start mobilizing the human, financial and technical resources required to deliver the health services as well as re-building the necessary management and administrative systems.

IV. Implementing health programmes. In the fourth phase, the competent units of the national health delivery system will develop and implement programmes to meet specific needs of the population in Lebanon. Some of these programmes may initially be implemented on a pilot basis to gain experience for wider application at a later stage.

V. Monitoring progress. In the last phase, the Government and the Ministry of Health will monitor progress in implementing Phases I, II, III and IV and will evaluate the need for any corrective action.

These five phases of work provide a framework for action, by (a) setting the scene for the recommendations made by the Assessment and Planning Mission with emphasis on 1983-86, and (b) helping the Government to identify the need for action in addition to these recommendations. The National Health Planning Unit of the Ministry of Health should play a key role in facilitating the planning, coordination and monitoring of the five phases of work.

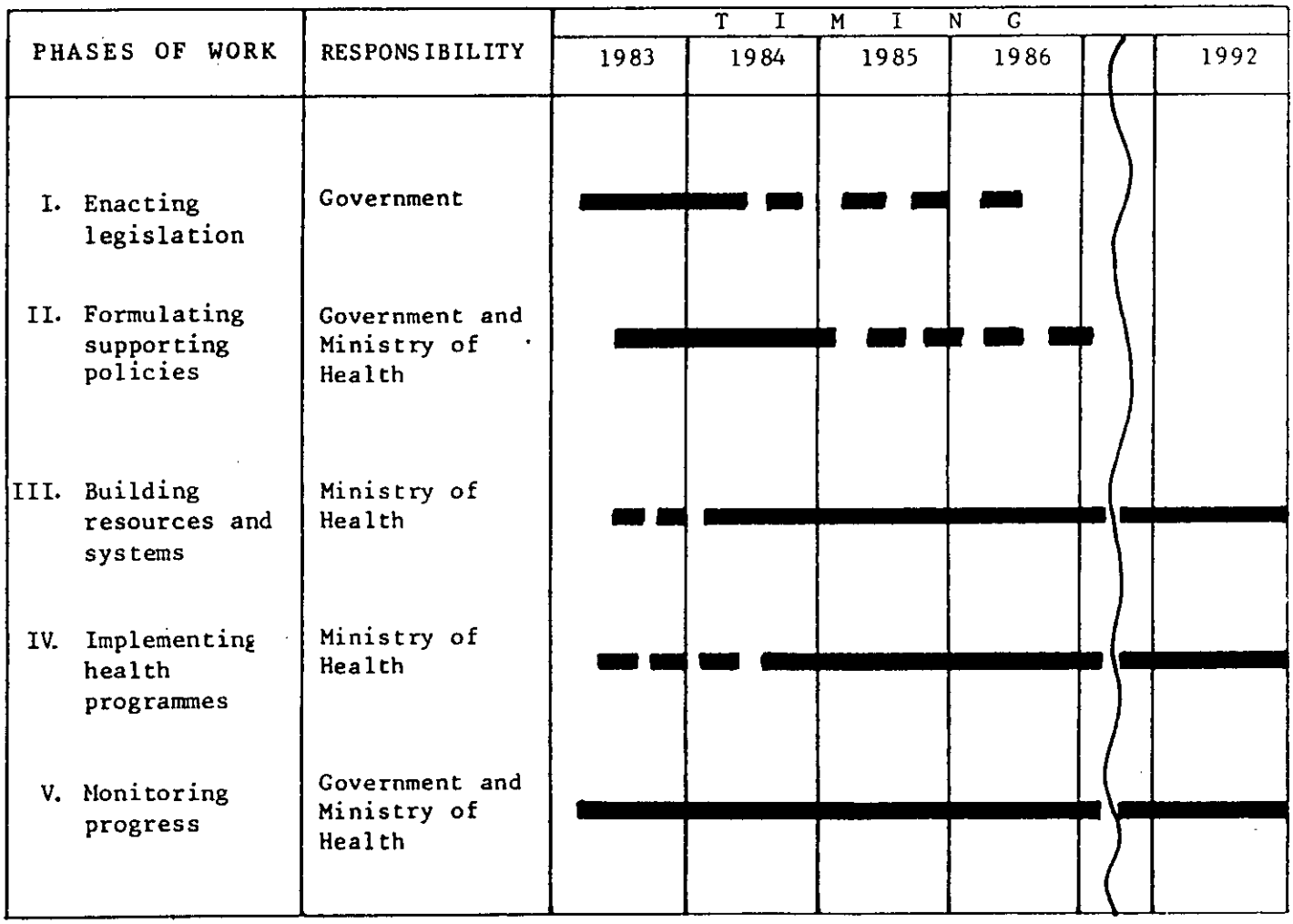
Specific action steps, together with responsibility and timing for each phase, are outlined tentatively in Section 6 of this report. The deadline of 6 May 1983 for the anticipated expiration of the Government's emergency powers is particularly relevant for several actions proposed in Phase I, Enacting Legislation.

If requested, WHO will be prepared to assist the Ministry of Health in implementing the five phases of the action plan. Appropriate areas of possible assistance include participation in progress reviews and training programmes, advice on technical issues and on the important role of the National Health Planning Unit, and refinement of the action planning and review process.

FIVE PARALLEL PHASES OF WORK PROVIDE A FRAMEWORK FOR ACTION ....

SUMMARY OF ACTION PLAN

(Illustrative - see details in Sections 6.1 to 6.5)



3. THE CURRENT SITUATION OF THE HEALTH SECTOR

3.1 OVERVIEW OF THE HEALTH SERVICES SECTOR IN LEBANON

A relatively clear image of Lebanon's health sector problems emerged from this mission, in spite of inadequate and conflicting information. Physicians, hospitals, private services, and commercialism dominate the health sector in general. Public sector health organization and finances are chaotic. The weakened Ministry of Health plays a relatively minor role, with little coordination with other redundant public sector health bureaucracies. Over two thirds of the MOH budget (US$ 58.5 million MOH budget in 1982) flows to the private sector through uncontrolled reimbursement for private hospital services of uncertain quality and necessity. There are about 3.2 hospital beds (0.23 of them public) for every 1 000 persons, but there is little control of the quality of hospital and medical services, and many public and private hospital beds are unoccupied. The public complains of rapidly rising costs of hospitalization, medical care, and drugs, and counterfeit drugs and illegal pharmacies have appeared. There is about one doctor for every 1 250 inhabitants, but nurses and middle level technical personnel are scarce, and all health personnel are highly concentrated in Beirut. Health centers and small dispensaries are operated by the MOH and by other Government and private agencies, but few such centers exist in Beirut and referral arrangements are inadequate. Nowhere in Lebanon is there a health center which delivers a full range of essential primary health care services. Throughout the health sector, the Government has little ability to control quality and to enforce standards.

The damages and disruption caused by the drawn-out hostilities since 1975 and by the 1982 crisis have only exacerbated long-established problems, including uncontrolled reliance by the Government on (and payment for) private sector health services, to the detriment of development of effective public sector health services. The population is reported to have little confidence in the Government's health services at present and prefers to utilize the private sector. The Government now urgently needs to develop and improve its own health services, to improve its use of private sector health services, or preferably to do both.

3.2 AVAILABILITY AND QUALITY OF INFORMATION

Much of the basic information needed for planning, operating, and monitoring health services and facilities either is not available in Lebanon or is inadequate in coverage or quality.

3.2.1 Availability of epidemiological information

Epidemiological information provides the foundation upon which all other parts of the public health programme are constructed. Information on health problems affecting the population is a basic essential tool for effective health planning and programming. To be able to determine needs for facilities and services, it is necessary to measure the level of health of the population and to be able to answer the questions as to the main health problems, their magnitude, the groups affected, and when and where the problems occur with the greatest frequency. The value of measuring the level of health does not stop at the stage of planning for the provision of health services but goes beyond that to measuring the outcomes of the services and assessing their adequacy and efficiency.

The use of appropriate epidemiology is almost absent at the various levels of Government (and other) health services in Lebanon. The present fragmented private, curative health care system in Lebanon lacks the ability to provide relevant epidemiological information. At the local or community level, health personnel, especially doctors, rarely report diseases to the health department, although they are obliged to do so (for some diseases) by law. A similar situation exists with respect to health establishments such as clinics, dispensaries and hospitals. This has resulted in the present situation in which only scattered information is available to the health authorities.

There is a conspicuous absence of health records, and where available, they are often incomplete, whether clinic or home based. Maintenance of quality medical records is an essential part of medical care in general. The lack of good medical records is regrettable, among other reasons, because they would constitute an invaluable help in the collection of baseline and follow-up data on health and disease. Medical records and archival science work (for which UN assistance is available) is needed in Lebanon.

The department of vital and health statistics of the MOH has been non-functional and practically non-existent since 1975. This department produced annual reports for the years 1956 to 1971. At that time its role was only as a processor of information which in many instances was deficient both in its comprehensiveness and in its quality. The collected data were rarely, if ever, selected, collected, and processed to facilitate or improve decision making, and rarely led to any actions. Hence, the essential basis of epidemiological surveillance (namely information for action), was missing, and it continues to be missing now, to the detriment of effective health services.

At the central level of the MOH, there is an existing structure for epidemiological services, yet these services have been almost at a standstill for many years in view of various serious constraints. Central supervision over the minimal field activities is inadequate, as are the analysis, use, and feedback of available epidemiological data. Many of these functions are practically non-existent. Hence there are few or no possibilities for ensuring regular identification of critical situations such as outbreaks and epidemics or for ensuring appropriate and timely responses to them and to other changes in incidence or prevalence of diseases.

In the present situation all collected information is for use by higher level officials only. Health workers collecting the information do not take part in the analysis or the interpretation of the data and don't see how the data are used, so they do not feel the value and the need for accuracy and completeness. In addition, data analyses are not made against the essential local background in the community; i.e., data are not collected on local community variables influencing health, and comparisons are not made between national and local data.

In spite of the current lack of adequate epidemiological services in the Government, Lebanon is potentially capable of developing and implementing sound epidemiological work, and of establishing an adequate national epidemiological surveillance and analysis system. This is the case because of the presence of universities which have well-experienced groups in epidemiological training and in the use of epidemiology. Those groups have been able, in the midst of the most difficult situations, to implement pilot epidemiological surveillance activities which could with slight modification serve as models for future development of these services in the MOH.

The proposed general framework for a health information system for the MOH, developed by the MOH/AUB Task Force on Health Information, is a step forward in the development of epidemiological services at the central level. More thought needs to be given, however, to the local level as a source of information and to its potential in the interpretation and utilization of information. At the local level, where health workers are expected to help communities to solve their health problems, the application of basic epidemiological principles can be most helpful. Local health workers are most suited for this purpose as they are often in the best position to interpret the situation in the light of local realities. By bringing epidemiological principles to peripheral health care, new dimensions will be added to this important tool, and several benefits are envisaged (as noted in Annex H, Preventive and Epidemiological Services).

3.2.2 Availability of health services information

Very few official data have been collected over the course of the last eight years. While there are several fragmented small surveys and studies of various sectors of the health delivery system, undertaken principally by AUB professors and students, no comprehensive set of data exists. Many of the special studies yield contradictory results, and virtually all are incomplete. Rather fundamental data are lacking concerning rates of utilization, inpatient hospital admissions, outpatient visits, disease patterns and trends, causes of death, costs of services, etc. As a consequence, both the WHO/LRCS mission and the financial analysis team spent a great deal of time systematically collecting, interpreting, and reconciling rather basic data and information describing the general and financial characteristics of the health services delivery system.

3.3 HEALTH CONDITIONS

As a result of war, some risk factors such as disrupted sanitation, population movements, etc., are accumulating and can stress the health situation, especially in relation to communicable diseases outbreaks. However, as noted in section 3.2.1, population indices and disease incidence/prevalence data are lacking. It is nevertheless possible to give some estimates on the present

state of affairs by making cautious inferences from data collected in selected groups and from observations and interviews at public and private hospitals, dispensaries, and basic services centres.

Upper respiratory tract infections and diarrhoeal diseases head the list of causes of morbidity, as in many other countries. Infectious diseases are endemic and some vary among the various population groups in Lebanon. The incidence of skin infections is said to not have increased during the war to a visible extent, and they may even be less prevalent now than before the war.

Malnutrition is reported to be restricted to groups living in particularly difficult situations (e.g., refugees). Studies on growth and illness patterns of Lebanese children were initiated in 1960. Local growth standards for boys and girls 1-18 months of age were published in 1969. Local longitudinal health and growth data have been published, as have data on nutritional status classified according to weight/length. There seems to be a stable 5-10% of undernutrition (defined as low-weight and height for age) in children under five.

Various sources report a high incidence of mental retardation among children, with cases occurring in clusters and seemingly related to the mosaic of different ethnic origins and to consanguinous marriages in certain communities.

3.4 ORGANIZATION, EXPENDITURES, FINANCING, AND SERVICE STATISTICS OF THE HEALTH SECTOR

In many cases, data with which to describe the financial performance of the health care system in Lebanon either are not available or are of questionable accuracy. The finance study team's best estimates of expenditures of various health care providers, as well as out-of-pocket expenses by the population for medical services, are presented in this section.

Table 3.4A below provides a summary of financial and services characteristics of the major health care providers and financial intermediaries. Table 3.4B presents similar information concerning private health insurance. The salient features of medical services delivery and financing mechanisms are presented below.

3.4.1 Delivery and Financing of Public Sector Medical Services

3.4.1.1 The Ministry of Health (MOH). As shown in Table 3.4A, the MOH primarily serves 700,000 medically indigent, providing medical care in its own hospitals and outpatient facilities and reimbursing costs of services rendered in private hospitals. Roughly 77% of hospitalized patients (40,000 : 52,000) are treated in private facilities with which the Ministry has contracts. In 1982, the MOH had contracts for 1184 beds with private hospitals. Reimbursements were based on a MOH fee schedule (tariff) and were reimbursed at 85% of scheduled charges. The Ministry's 1982 budget amounted to LL 234.0 million and of this sum, LL 160.0 million were allocated for reimbursement of health services provided in the private sector.

3.4.1.2 Army and Public Security Forces. The military, including active duty army and public security forces and retired personnel, their dependents and civilian support staff, are provided care in military facilities or on a reimbursement-of-charges basis in private facilities. A total of 250,000 individuals are covered. Total expenditures are estimated at LL 75.0 million in 1982. Funds are directly allocated from the Ministry of Defence (MOD) to operate military health services and to reimburse private providers.

3.4.1.3 The National Social Security Fund (NSSF). The NSSF provides financial reimbursement for health care charges incurred by employees in the private sector, including autonomous organizations. In 1982, a total of 645,000 persons, comprised of 215,000 employees and 430,000 dependents, were covered. Funding comes from employers, employees and the MOF. By special law, the MOF is obligated to pay the NSSF an amount equal to 25% of NSSF payments for medical services rendered on behalf of beneficiaries. Care is provided in private health care facilities and reimbursement is based on a percentage of a NSSF fee schedule or tariff. Estimated expenditures in 1982 were LL 144.0 million. Total spending would have been LL 163.0 million if the NSSF had adopted the uniform tariff recently developed by the Task Force on Health Care Financing, MOH.

3.4.1.4 Office of Social Development (OSD). The OSD provides outpatient care to some 195,950 medically underserved individuals. The OSD spent LL 8.0 million for care in 1982. In 1983, it expects to spend LL 7.0 million for care in its own facilities and additional LL 3.0 million for care provided jointly with voluntary organizations.

3.4.1.5 Cooperative of Government Civil Servants (UGCS). The UGCS also provides financial reimbursement for care in private health facilities based on a percentage of total charges as established by its own individual fee schedule. Those covered include 47,000 GOL employees plus 173,000 dependents for a total of 220,000 persons. Funding comes from payroll tax assessments paid by employees and the national government. The tax assessment is 7% of total wages and salaries (excluding allowances), of which employees pay 1% and the State pays 6%. The 1982 estimate for health reimbursement expenditures is LL 50.0 million.

3.4.1.6 Municipalities. Municipalities (under the Ministry of the Interior) frequently provide outpatient care in dispensaries and health centers which they operate. In Beirut, the municipality estimates that it spent roughly LL 10.0 million for health services in 1982. A rough estimate of expenditures by all municipalities in Lebanon for health care in 1982 is LL 20.0 million.

3.4.2 Private Sector Health Insurance

In the private insurance sector, one finds both commercial health insurance (e.g., ALICO, the American Life Insurance Company) and health insurance offered their employees by employers who are self-insured (e.g., AUB). Table 3.4B below details the coverage, benefits and costs of health insurance provided by ALICO and AUB. No attempt was made to survey all private sector health insurance plans individually. The information presented concerning ALICO and AUB is illustrative of the types of private insurance plans that are in effect in Lebanon at the present time.

Private health insurance is not used extensively in Lebanon. In general, private health insurance is supplemental to public sector direct medical services delivery and reimburses the costs of services rendered by private providers. ALICO estimates that LL 5.0 million is spent annually in Lebanon for commercial health insurance covering 100,000 persons, primarily to supplement NSSF benefits. AUB spends LL 5.0 million each year providing coverage for some 13,000 students, faculty and other employees, including dependents.

Few firms provide medical care for employees in company dispensaries, without charge. Middle East Airlines (MEA), Lebanon's largest employer (with 5,000 employees) both provides this service and also pays the 15% of medical care charges not reimbursed by the NSSF. MEA estimates that it spent LL 1.0 million in 1982 for these benefits.

It is difficult to estimate the total spent on health care by private firms and other organizations in 1982. Including commercial health insurance, AUB and MEA, LL 11.0 million are accounted for. Doubling this figure to LL 22.0 million, we believe, gives a reasonable estimate of the total expenditures by private health insurance organizations in 1982.

3.4.3 Out-of-Pocket Expenditures

The last and a major source of health care financing in Lebanon is direct out-of-pocket expenditures for drugs, physicians and other health related costs by the consumer. No good data on which to base estimates of the magnitude of these expenditures are available. Drug costs (see discussion in section 3.8.2) constitute a major component of the costs of health care, particularly out-of-pocket expenditures.

An International Labor Organization (ILO) study estimated that Lebanon spent 6% of individual income on drugs and from 11% to 17% of income on health care all together. However, the portion of these expenditures that is directly out-of-pocket and that which is reimbursed by some type of insurance coverage has never been calculated. One could use the percentage of drug costs relative to "income" as a basis for estimating total expenditures on health services. However, the partial translation of the ILO study available to the health finance study team did not make it clear how "income" is defined (i.e., disposable, personal, etc.) and the original report was not available. Therefore, some basis other than percentages of income had to be used in order to estimate total outlays on health, including expenditures made out-of-pocket.

Based on discussions with people knowledgeable about Lebanon's health sector, we judge that at least as much is spent out-of-pocket at point of service as is paid for by all types of public sector reimbursement mechanism and by private insurance organizations, including firms that self-insure, plus the value of services directly provided by Government.

3.4.4 Total of Health Sector Expenditures in Lebanon in 1982

The health sector finance study team concluded that aggregate expenditures on medical services in Lebanon in 1982 were between LL 1.14 billion and LL 1.6 billion, probably nearer to the lower bound of this range. Total expenditures appear to be divided roughly equally between public and private sectors as sources of funds, and drug costs as a component of total health expenditures appear to range from 38% to 42% of total outlays on medical services.

3.4.5 Weaknesses in Financial Mechanisms

Weaknesses in the existing financial mechanisms are discussed under individual categories below.

3.4.5 1 Fragmentation Among Public Sector Agencies. Public sector direct provision of medical services and reimbursement of the costs of privately provided medical services is scattered among several different agencies which are in no way coordinated. The NSSF, UGCS, and the OSD are autonomous agencies under the tutelage of the MOLSA. Municipalities and the Military are under the control of the Ministries of the Interior and of Defence, respectively. Both the MOH and the Military reimburse the costs of private sector provided medical services, in addition to providing some services directly. The OSD supplies services directly (outpatient services only), while the UGCS and the NSSF are strict cost reimbursement agencies. The result is that different agencies, in principle, cover different but sometimes overlapping segments of the population, providing non-uniform benefits to beneficiaries who happen to be covered by respective agencies depending largely on their circumstances of employment.

Public agencies receive resources in a wide variety of ways: direct allocations from the MOF in the case of the MOH, ODS (MOLSA), and the MOD and wage and salary payroll tax assessments in the case of the UGCS and the NSSF. Yet the NSSF also receives part of its revenues (25% of annual medical care expenditures) directly from the MOF. There is no clear equity achieved in the case of benefits to beneficiaries who are covered, since each agency provides direct services or reimburses the costs of privately provided medical services according to its own tastes, individual capacity, and schedules, as the case may be.

Adding up the total population covered by the various public agencies, it appears that a maximum of 2.0 million persons are covered by public sector direct delivery of medical services or cost reimbursements, leaving 1.0 million persons medically disenfranchised.

Employee tax assessments range from zero in the case of the Military, through 1.5% of LL 750 monthly wages in the case of the NSSF, to a high of 1% of total wages in the case of members of the UGCS. Thus there is little reason to believe that equity exists on the revenue generation side either.

There would appear to be great advantages in adopting a uniform tariff or fee schedule on the part of public agencies, consolidating all or most of the public sector reimbursement activities into a single agency, and in providing for greater uniformity in employee contributions to public sector cost reimbursement. There also would appear to be merit in the MOH's recent proposal to absorb the direct medical services delivery activities of the OSD into MOH operations.

3.4.5.2 Absence of Cost Controls and Quality Assurance. Cost reimbursement invites various abuses, such as the oversupply of services, false billing, and charging over and above legal fee and service tariffs. In the present system, very little is done to enforce the legal tariffs adopted by each agency for fear that private providers would refuse to accept the agency's clients and would provide services to the clients of another agency or engage in strictly private practice.

Actually, before 1976, the GOL cost containment program was active and was believed to be reasonably effective. However, during eight years of war the public medical sector was hit hard and the private sector grew rapidly. Public agencies became increasingly weak due to war and political turmoil. This led to a decline in discipline and in effective administration of many Government programs, including those in the public medical sector. Now that the war is over, Government has the opportunity to regain momentum in administration and enforcement. However, the question is whether the Government will grasp this opportunity, and how best to do this.

Adoption of a uniform tariff for all public sector reimbursement agencies (such as the one recently developed by the Task Force on Health Care Financing, MOH) and consolidation of public sector cost reimbursement activities into a single responsible agency would facilitate enforcement of legal fees greatly. However, in addition to these things, Government must also develop the necessary data base and performance standards requisite to an effective program of cost containment that would improve the efficiency with which public funds are spent.

An aggressive program of cost containment would not only serve Government's interests in using public funds more efficiently, but would also facilitate Government's interests in supplying greater volumes of medical services through the public sector.

An effective cost containment program cannot be launched with out an equally strong program of quality assurance. If Government simply puts a lid or cap on costs and prices as the basis for its reimbursement activities, levels of private sector earnings can still raise, if the private medical sector reduces costs by means which also reduce quality of service, with obvious disadvantages for the welfare of patients. The quality of medical care in Lebanon is very uneven, and in some cases it is undoubtedly below minimum standards of acceptable medical practice.

Currently there are very few mechanisms in place to monitor the quality of care rendered in either the public or the private medical sectors. In the roughly 130 or so hospitals in Lebanon, only four tissue committees exist, and one of these was established only two years ago. There is no evidence of peer review or of objectively established and enforced utilization and medical practice and performance standards, outside of university hospitals and a handful of private voluntary hospitals. Medical audits are not regularly conducted outside of those institutions which accommodate teaching programs. Inspection and certification standards are very low and are not enforced consistently.

Under the circumstances cited in the paragraph immediately above, days of hospital care and visits to outpatient facilities and clinics could not possibly be reasonably comparable in terms of quality of care received, and thus reimbursement even according to a standard fee schedule could not be either wholly rational or equitable. The problems of lack of uniformity in the quality of care available and the general low level of quality of care in many cases will become greater as the trend toward foreign-trained physicians accelerates in the future, as predicted, without adequate means to assure the competence and good practice of physicians.

3.4.5.3 Low Salaries of Public Sector Health Personnel. In addition to a current lack of effectively operating government medical facilities, Government faces the problem of recruiting and retaining an effective and dedicated cadre of physicians and other health professionals to Government service. In order to do this, Government would have to provide a compensation that at the margin is equal or better than the levels of earnings available in the private medical sector. In the absence of an effective program of cost containment, there is no check on the rise in the levels of earnings in the private medical sector. Thus, Government will always be fighting a difficult, if not losing, battle in competing with the private medical sector for the services of health professionals, unless Government resorts to conscription or forced placement in government service upon graduation.

Table 3.4A SUMMARY OF FINANCIAL AND SERVICE CHARACTERISTICS OF MAJOR HEALTH-RELATED ENTITIES *

ENTITY	FINANCING	THOSE SERVED - ELIGIBLES	SCOPE OF SERVICES & CLIENT PAYMENT	SERVICES UTILIZATION
Ministry of Health	1. Receives budget from Ministry of Finance, 1982 estimated total 234 million LL±. MOH collects no fees from patients. 2. Budget break down M.L.L a. "Chapter 1" reimbursement of pvt. providers 130+ b. "Chapter 2 - long-term care (Tbc, mental rehab.) in private facility. 20+ c. "Chapter 3" reimbursement for private lab., x-ray, dialysis, etc. 10+ 160+ d. Est. cost of MOH facilities for medical care 50 e. Est. cost for general admin. & P.H. 24 234 3. Average annual cost for those served: LL a. For private reimbursement 229 b. Add amount MOH pays for its own facilities serving an estimated 700,000 persons 71 Est. expenditure/ beneficiary/year 300LL	1. Anyone not covered by other health service - basically the medically indigent, estimated at 700,000. 2. Where no other facility is available, anyone presenting for care is treated without question. 3. If patient unable to pay the 15% of tariff, MOH pays for them.	1. Provides services directly in its own facilities, without charge to patients. 2. Contracts with private hospitals + MDs and pays 85% of fee schedule. Patient pays 15% if able, up to 500 LL maximum. No outpatient benefits except lab, x-ray, dialysis, on referral from MOH OPD. 3. Covers out of Lebanon referral for medical care, 100% of costs including transport and attendant. 4. Categorial P.H. Services. 5. Covers services provided only in a 3rd class bed.	1. 1982 40,000 private hospitalizations 12,000 MOH facility hospitalizations. 120,000 out patient visits. (source, DG, MOH, 2/12/83).

*Tables 3.4A and 3.4B are taken from Tables 3.2.1 and 3.3.1 of Jeffers, J., and Zukin, P., Lebanon Health Sector Financing: Issues, Problems and Recommendations, March, 1983.

Table 3.4A (Continued)

Army, Security Forces	1. Entirely funded by GOL through Ministry of Defense. 2. No budget estimate but in 1982 55 million LL spent on reimbursement of private sector care. This equaled 80% of services provided, hence total expenses estimated at 75 million LL; and estimated 15 M.LL for drugs. Est. expenditure/beneficiary /year. =300LL ======= 3. Total number covered 250,000.	1. Active duty military, security forces amounting to 35-40 thousand plus retirees and dependents. 2. Civilian employees, numbering estimated 35,000.	1. 2 military hospitals, damaged and only partially operational. 2. Contract out to private facilities. 3. Active duty and dependents covered 100% 4. Civilian employees covered 75% of costs of services.	1. No information
National Social Security Fund	1. Financed by an amount equal to 7% of payroll, up to 1st LL750 /month, 1.5% from employee 5.5% from employer. 2. GOL, Min. of Finance, gives NSSF an amount equal to 25% of expenditures for medical care annually. 3. Total estimated expenditure for 1982 is 144 M.LL. This equates to 223 LL per beneficiary. 4. Total out of pocket for 15% not reimbursed by the fund amounts to approx. 25 M.LL However, in fact it is believed beneficiaries pay more than this because reportedly some providers charge more than the authorized tariff.	1. Employees in private industry industry - from one employee, up. 2. Foreign workers whose countries cover Lebanese workers in their country. 3. Total covered in 1982, 645,000 (215,000 employees insureds plus 430,000 dependents).	1. Covers all services provided under fixed schedule (tariff) of fees; NSSF paying 85% of these fees and the client 15%, for in-patient care and 70% and 30% respectively, for out patient care. 2. Provider bills the NSSF directly collects the consumer portion from the consumer. 3. Fund does not operate any medical care facilities at this time but has a linkage to the Batroun hospital which operates as an autonomous entity. 4. Covers only 3rd class changes in hospital, but client can pay difference for higher class bed. 5. Patients may be referred out of Lebanon for care not available in the country.	1. All those covered have similar benefits. 2. Because of delays in processing claims, some providers are reluctant to cover services involving small amounts of money e.g., under 100LL.

Table 3.4A (Continued)

Office of Social Development	1. Health services financed from Min. Labor & Social Affairs directly in some medical-social centers, and in others, cost sharing with voluntary organizations. Total funding is budgeted at 10 M.LL for 1983, as follows: 7 M.LL to cover health services for 113,250 in medical-social centers entirely subsidized by ODS and 3 M.LL for 113 smaller medical-social centers jointly funded with voluntary agencies serving 81,700. Total number served equal 194,950; average expenditure equal 10 M.LL/194,950 or 51.3 LL per beneficiary. 2. Total collected from beneficiaries unknown. 3. Total spending in 1982 was 8 M.LL.	1. OSD attempts to fill the gaps for social services and MCH care. Operates in in rural areas and under served beneficiaries. 2. Total served in 82 was 194,950.	1. Provides mainly curative MCH services - mid-wives, care of children some immunizations and health education through medical-social 2. Client pays 5 LL per center visit. Total collected in unknown but maximum would not exceed 194,950 x 5 LL or around 1 Million LL. 3. OSD is developing expanded centers including delivery of maternity cases and broader health care.	1. Degree to which OSD services are utilized by under served population has not been established.
Mutuelle - Cooperative of Civil Servants, (UGCS).	1. Financed by contribution from civil servants and the Lebanese government. Funds go to the Cooperative of Civil Servants to cover various benefits. 1982, of a total budget of 75 M.LL, 50 M.LL went for health benefits. This equates to 50 M.LL/220,000 = 221 LL per beneficiary.	1. Employees and their dependents are covered equally. Civil Servants number 47,000 and dependents 173,000, for a total of 220,000 eligibles.	1. Provides health and death benefits and rewards for births and marriages.	1. Break down of served utilization by beneficiaries not available from visit to Mutuelle. (UGCS)

Table 3.4B
PRIVATE HEALTH INSURANCE IN LEBANON *

ENTITY	REMARKS	THOSE COVERED	SCHEDULE OF BENEFITS	COSTS
AMERICAN UNIVERSITY OF BEIRUT HEALTH INSURANCE PLAN	1. Plan is self insured by AUB and provides both hospitalization and ambulatory care. Plan is called the HIP	1. Students and AUB employees - faculty and staff are covered, including dependents, according to the payment of premiums based upon the class of service and number of dependents.	1. Subscribers are entitled to inpatient and outpatient care of the AUH, with certain exclusives - eye glasses, blood, infusions, some drugs and ambulance service. Pre-existing health problems may be excluded, hospital benefits, i.e., number of days per year, increase with length of employment.	1. Premiums are generally collected monthly from employees or in advance from students.
	2. Number currently covered is 13003. This includes students, faculty members and employees. Close to 100% of eligible sign up for the HIP.	2. Distribution of subscribers by class of bed: HIP / HIP + NSSF / TOTAL 1st class 1,016 / 559 / 1,575 2nd class 5,672# / 1,558 / 7,230 3rd class 147 / 418 / 565 Total 6,835 / 2,535 / 9,370 # includes 4247 students.	2. Faculty and key staff are generally treated in 1st class accomodations, students in second class and lower level workers in third class.	2. On an annual basis, the following is the schedule premiums as of March, 1982: 1st Class / HIP / HIP/NSSF Subscriber 960 708 Couple 1,644 1,248 Cpl + 1 child 2,112 1,608 Cpl + 2 or more children 2,568 1,944 2nd Class Subscriber 708 372 Couple 1,248 648 Cpl + 1 child 1,608 840 Cpl + 2 or more children 1,944 1,008 Third Class Subscriber 480 216 Couple 876 384 Cpl + 1 child 1,092 420 Cpl + 2 or more children 1,356 588 Total premiums paid in 1982 were 4 million LL. This equates to 308 LL per insured/year. In 1982 total costs were 5 million LL. This deficit was funded by the University.
	3. The AUB Hospital Insurance Plan has two general plans - one for subscribers not covered by NSSF and another which serves to supplement benefits under NSSF. Benefits under both plans cover identical services. The difference is the premium charged and the class of service.	3. The total of subscribers plus dependents is 13,003.		

*Tables 3.4A and 3.4B are taken from Tables 3.2.1 and 3.3.1 of Jeffers, J., and Zukin P., Lebanon Health Sector Financing: Issues, Problems and Recommendations, March, 1983.

Table 3.4A (Continued)

Mutuelle Cooperative of Civil Servants, (UGCS) (Cont'd.)			2. Health benefits vary with employees rank. Benefits are cash payments for health care based on a relative value scale which the Mutuelle has established. This scale has varied from that used by the MOH and NSSF for reimbursement in the past. Drug costs are partially reimbursed. Lowest rank employee treated in 3rd class; higher rank gets 1.6 x 3rd class reimbursement amount and can use 2nd class bed; highest rank reimbursement is 2.3 x 3rd class bed care. 3. Employee pays 1% of full payroll amount and government 6% of payroll. 4. Beneficiary may be referred out of Lebanon for medical care not available in country.	
Municipalities	1. Municipality health services are under the jurisdiction of the Ministry of the Interior. 2. Many municipalities operate dispensaries which provide services to municipal employees and their dependents and to the general public.	1. Municipal employees and dependents. 2. Exact population coverage is unknown.	1. Outpatient services usually are rendered free to municipal employees and their dependents. 2. A charge (nominal) is often required for services rendered on behalf of the general public. Exact fees and fee revenues are unknown.	1. The City of Beirut spent roughly LL 10.0 million in 1982. 2. Spending on the part of all other municipal health facilities is estimated at LL 10.0 million in 1982.

Table 3.4B (Continued)
PRIVATE HEALTH INSURANCE IN LEBANON

ENTITY	REMARKS	THOSE COVERED	SCHEDULE OF BENEFITS	COSTS
COMMERCIAL INSURANCE-AMERICAN LIFE INSURANCE COMPANY (ALIC)	1. Generally sold to groups in commercial organizations. Minimum group is 10 employees. 2. Health insurance is generally sold only as an add on to life insurance. 3. ALIC estimates it has 20,000 employees covered by health insurance and that this constitutes half of the commercial health insurance in Lebanon. Total number of coverage is estimated at 40,000 employees plus 60,000 dependents or 100,000 individuals. 4. Percentage of firms with fifty employees or more which make commercial health insurance available to their employees is small - at most ten percent. 5. As seen from the schedule of benefits, catastrophic illness coverage is minimal. 6. Employers may pay for some or all of employees insurance costs as a fringe benefit.	1. Employees and eligible dependents of firms with contracts with ALIC. 2. Covers employee and only immediate family-spouse and dependent children. 3. Employees and dependents have identical coverage.	1. ALIC sells two plans. These have identical benefit categories but differ in the maximum paid per category. 2. Both plans are expected to be used in conjuction with NSSF. 3. Both plans offer Medical Assistance Insurance (MAI) and Supplemental Major Medical Insurance (SMMI) MAI has no deductibles and no co-payment or co-insured provisions. It pays immediately for hospital services (only) up to the Plan's limits. These are 3,700 LL for Plan B and 6,200 LL for Plan A. SMMI may be purchased alone or in conjuction with MAI. If brought alone there is an deductible of 4500 LL. MAI covers this deductible; however there is a 20% co-payment or co-insurance charge to the insured. Both plans have maximum life time benefits of 50,000 LL and vary in the daily hospital room reimbursement - 160 LL for Plan B and 250 LL for Plan A. For an additional "load" of 20% on the premiums, out patient visits are also covered and their cost subtracted against the life time maximum.	1. Total annual premiums for commercial health insurance in Lebanon are estimated by ALIC as around 5 million LL. This equates to 50LL/per insured/year. 2. Premiums are collected monthly; annualized they are as follows: Plan B - Low Coverage MAI: Employee Only LL 288; Employee & family LL 1,008 SMMI: 72; 192 SMMI & Out-Pt.: 86; 230 Plan A - High Coverage MAI: 432; 1,560 SMMI: 144; 240 SMMI & Out-Pt.: 173; 288 (Note that any number of family members are included in one flat premium rate)

3.5 HEALTH SERVICES FACILITIES

A balanced and coordinated approach to the development of health facilities is needed, including hospitals and other types of health facilities (e.g., health centres) in both public and private sectors. A national master plan for development of health services facilities is needed in Lebanon, with mechanisms to encourage and reward compliance with that plan.

This section deals principally with hospitals, because of the Government's greater interest in hospital development, because of the great costs involved in their construction and especially in their operations, and because more data are available regarding hospitals than regarding other health facilities, and because major policy decisions regarding expansion of Government (MOH) hospitals are under discussion. This is not to deny the importance of health centres and of primary health care, as emphasized in Annex G.

3.5.1 Health centres and dispensaries

Accurate data on dispensaries and health centres in Lebanon, including the actual number that are functioning, the levels of services offered, their coverage and impact,and the types and number of staff, are unavailable. Nor is there data on the health and disease problems and needs in the country. The lack of a health plan or policy has meant that many dispensaries have been set up for business and/or political reasons rather than on the basis of the needs of the population. Most care provided at dispensaries is free or fees of up to 5 Lebanese Pounds are charged.

Table 3.5.1A shows the total number of dispensaries in Lebanon by Mohafazat (region), with the population distribution. Of these 507 dispensaries, 59.2% are located in apartments, with the remaining 40.8% in separate buildings. More than 80% of the total number of the dispensaries occupy an area of less than 150 square meters. The table also shows that Beirut, despite having the highest population, has the least number of dispensaries.

Table 3.5.1A Dispensaries in Lebanon and the Population Distribution by Mohafazat.

Mohafazat	Number	Percentage	Population Distribution
Beirut	48	9.5	45%
North Lebanon	61	12	16%
Beqa'	78	15.4	10%
South Lebanon	133	26.2	12%
Mount Lebanon	187	36.9	17%
Total	507	100%	100%

(Ref. AUB Study 1982, Dr Kronfol) (Ref. MOH, 1982)

Dispensary personnel (see Table 3.5B) are predominantly physicians, as was noted in a study of 268 of the 507 dispensaries. There are more physicians than nurses, and almost equal numbers of ancillary staff (such as cleaners, drivers etc.) to nurses. There is an average of seven workers per dispensary.

Table 3.5B Personnel Employed in 268 Dispensaries

Category	Number
Physicians	831
Nurses and midwives	534
Social worker	41
Pharmacists	12
Other	497
Total	1915

(Ref. AUB Study 1982 - Dr Kronfol)

Nearly all dispensaries, especially those in the rural areas, are said to offer mostly curative care. This is partly a reflection on the lack of a health policy at central level. It also reflects the fact that the core curricula of most doctors and nurses are not oriented to community health, so that the importance of a preventive health approach is not appreciated.

Funding of these same 268 dispensaries is from a variety of sources but the Ministry of Health and the Office of Social Development provide 47% of their total budget (Table 3.5C).

Table 3.5C Funding of Dispensaries.

Source	Percentage
Office of Social Development	26.2
Ministry of Health	21.3
Political parties	13.8
Red Cross	13.8
Mouvement Social	11.4
Voluntary organizations	4.9
Municipality	4.4
Community	1.0
International agencies	1.0
Others	1.0
Total	100%

(Ref. AUB Study 1982- Dr Kronfol)

3.5.2 Actual hospital bed supply

Based on available information, the WHO team considers that the tables below approximately indicate the distribution of general hospitals and functioning acute general hospital beds in Lebanon, by Mohafazat, as of February, 1983. The figures are those given by the Ministry of Health and the private hospital syndicate.

BEDS (+/-5%) BY MOHAFAZAT

	BEIRUT	MT.LEBANON	NORTH	SOUTH	BEKAA	TOTAL
PRIVATE	2119	1663	784	824	324	5714
PUBLIC	20	160	130	170	210	690
TOTAL	2139	1823	914	994	534	6404

HOSPITALS BY MOHAFAZAT:

	BEIRUT	M.LEBANON	NORTH	SOUTH	BEKAA	TOTAL
PRIVATE	22	23	15	15	6	81
PUBLIC	1	4	3	5	4	17

Annex Table E-6 lists private sector general hospitals, with the number of beds for each, by three major categories of general hospitals: university hospitals (total of 721 beds); hospitals belonging to religious communities and categorized as "non-profit" (1 777 beds); and "for profit" private hospitals (3 390 beds).

In addition to the 6404 acute general hospital beds shown above, there are approximately 3368 beds in private hospitals for chronically ill patients, out of which the Ministry of Health uses approximately 2500 under contracts. This makes a total of 9772 hospital beds in Lebanon. With an estimated population of 3 million in Lebanon, this gives a rate of 3.2 beds per 1 000 inhabitants. (Rates for some other countries are: Jordan 0.8; Iran 1.8; Iraq 1.9; Saudi Arabia 1.3; Syria 1.1; Libya 4; Kuwait 4; Yugoslavia 6; Greece 6; France 10.)

The Government does not own long term care facilities, but pays to bed patients in private long term care facilities:

Mental illness	4 institutions, totalling	1 305 beds
T.B.	3 institutions, totalling	235 beds
Chronic illness	10 institutions, totalling	1 695 beds
Rehabilitation	7 institutions, totalling	183 beds

3.5.3 Public hospital beds potentially available or now being added

The number of MOH general acute care hospital beds in service could be approximately doubled relatively quickly and at relatively low cost. In existing public hospitals in Lebanon there are, according to a survey made by AUB public health students in February 1982, 580 acute care general hospital beds which potentially could be renovated, upgraded, equipped, staffed, and put to use in a relatively short time.

Several hospital construction projects are also either underway or about to begin.

- At the Karantina Hospital in Beirut, construction work has just started for an additional 200 beds.
- In Saida a prefabricated hospital with 130 beds is apparently to be set up in the near future.
- In Baabda (in Greater Beirut) there is an incomplete building for a 500 bed hospital.

3.5.4 Determination of hospital bed needs

Available information does not permit accurate assessment of the present supply of hospital beds, of absolute needs for beds, or of priorities which should be followed if additional beds or hospitals were to be added to the overall hospital system. Epidemiological surveys are needed in order to determine the needs for hospital care and for other types of health care, based on identified health problems. Other studies are needed in order to determine with greater accuracy the present supply of hospitals and other health services facilities (e.g., health centers), their condition, and their acceptance and use by the people. Surveys and studies of the people's health knowledge, attitudes, and practices are also required in order to determine where they prefer to seek health care, under what conditions, and what factors determine their use of various private and public facilities and services.

Given the paucity of available information, discussions of general hospital bed requirements are sometimes based on some assumed "standard" ratio of beds to population. For example, at three beds per 1 000 population, Lebanon would "need" 9 000 beds to serve 3 000 000 persons. Estimates of additional beds needed are then made by subtracting an estimate of the total available bed supply from the assumed required ratio or number. Such methods too often involve unreasonable assumptions. Examination of the hospital care situation reveals that any addition of beds to the present system at public expense (directly or indirectly, including donor contributions or loans which could be used for other purposes) would need to be carefully justified in terms of issues such as:

- Extent and appropriateness of utilization of existing bed capacity
- Ability to staff and maintain facilities
- Ability to meet operating and recurrent costs of facilities (usually from 30% to 50% annually of a hospital's initial costs)
- Priority of specific additions relative to other potential additions
- Priority of added beds over other investments of health sector resources which might have greater impact on health (e.g., PHC or prevention)
- Types of beds to be added (acute care or long term, etc.)

The National Health Planning Office in the MOH will need to consider all of these factors in formulating a national plan for health facilities and their development. Certain additions of hospital beds, difficult to justify in the light of these factors, might be justified as necessary parts of pilot or demonstration projects designed to obtain maximum health impact with available health sector resources (through, for example, AHA development or support for PHC).

Some of the factors listed above are briefly discussed in the following paragraphs, and financial implications of adding MOH beds are analyzed in Section 3.5.5.

3.5.4.1 Hospital Occupancy Rates. Available information does not permit accurate assessment of the occupancy rates, but it is usually stated that private hospitals have an average occupancy rate around 60% while the public hospitals (with the disadvantages of a social stigma, poorer management, etc.) have an average occupancy rate below 50%. For many reasons (highly centralized and poor management, lack of or delay of supplies, lack of control of the staff performance, unclear financing, etc,), there is a lack of public confidence in public hospital services.

3.5.4.2 Quality of hospital care. Quality of care in public hospitals was difficult to assess under the conditions prevailing at the time of the mission, because of war damage, continuing disruption of the system (e.g., absence of some staff members), etc. The general opinion among the public and health care providers in Lebanon is that MOH hospitals do not offer high quality services. Members of the WHO/LRCS mission found that the few selected "private" hospitals which they visited (actually predominantly nonprofit hospitals belonging to religious groups; see Annex Table E-3 for examples) appeared to be well-run. No more general statement can be made regarding the operations or quality of care of the several categories of "private" hospitals, because few data are available and a considerable number of visits would be necessary. It appears that there is a considerable difference between some of these hospitals run by private doctors for profit and those run under either charitable status or a Board of Management of trustee status; those in the latter category include centres of excellence in which the effective major hospital work of the country is done, including medical training of doctors and nurses.

3.5.4.3 Needs for long term hospital care. Needs for psychiatric beds and for long term care facilities in general are very dependent on social mechanisms (family care, professional care at home, day care, home visitors, non-medical institutions, etc.) for dealing with mental and long term illness. The only long term care facility visited by members of the mission was the excellent 1 100 bed private mental hospital, the psychiatric director of which suggested that additional psychiatric beds are needed nationwide. Long term care must be included in the development of both immediate and long range plans for the health sector. This WHO report, however, concentrates on general, acute care hospital beds, in view of the scarcity of available data regarding needs for long term care.

3.5.5 Analysis of some financial implications of adding (3 000) MOH beds

The Ministry of Health has the responsibility for providing hospital care for all citizens who do not participate in one of the health insurance schemes (NSSA, civil servants, mutuelle, military). At present approximately 35% of the population are not covered by public or private insurance. For a variety of reasons (wartime security measures, lack of public facilities, etc.), the Ministry of Public Health has authorized reimbursement of treatment for many patients (deemed eligible for free treatment in MOH hospitals) in private hospitals. Data for 1982 indicate that approximately 70,000 patients (acute and long term treatment) received private hospital treatment at public expense in that year.

With eighty percent of public sector revenues spent on reimbursing the costs of private medical sector provided medical services, the MOH resents its reimbursement role and feels in a weak position relative to the private medical sector. The MOH recognizes that it currently has little capacity to deliver services directly, due to lack of resources, facilities and personnel, and that its administrative capacity is weak. The private medical sector is rich and powerful in terms of facilities and personnel, and has a favorable public image. The Government public health sector is stigmatized as capable of producing only low quality medical services, if services can be provided at all. Thus the private medical sector is in a position virtually to dictate costs, prices and qualities of services, and other terms on which it will provide medical services on behalf of Government. Those terms cannot be presumed to coincide with the collective interest of the Lebanese people. The Government health establishment is frustrated and would like to increase its strength vis a vis the private medical sector.

Government also feels that it must make a visible, perhaps dramatic, effort to directly provide a larger volume of medical services to the people than it currently provides, to demonstrate its active concern for the people's health and to maintain and increase its credibility.

Given these Government interests, the MOH places major emphasis on expanding the number of public hospital beds. Public hospitals are highly visible and are viewed by the MOH as "temples or palaces" of compassion for the people, thus serving to demonstrate Government's commitment to improving the general welfare.

However, the MOH also aggressively attempts to justify the expansion of the number of public hospital beds on economic grounds. The MOH insists that it can provide a quality of hospital services that is equal to that provided by the private medical sector, and that the MOH can do so at lower costs than those currently reimbursed per day of hospital service to private hospitals on behalf of MOH patients. MOH officials consistently state that increasing the number of public hospital beds is necessary in order to provide effective competition between the public and private medical sectors, resulting in higher quality and lower costs per unit of hospital services provided by the private hospital sector. MOH officials asert that effective competition between the public and private hospital sector requires that 40% to 60% of the total number of short-term general acute-care hospitals be public. The total number of existing public, short-term acute-care hospital beds, if they were fully operational, is around 1200, while the total of existing private beds of this sort number roughly 5,200, yielding a total of 6,400. In order for the MOH to have 40% of hospital beds, which in its view is necessary to provide effective competition, the MOH would need approximately 3000 additional public hospital beds.

$$\frac{1,200 + 3,000 \times 100}{6,400 + 3,000} = \frac{4,200 \times 100}{9,400} = 44.7\%$$

The problems of constructing, staffing, managing, and financing the operation of an additional 3000 public hospital beds in Lebanon are enormous. Construction and management problems aside, staffing and finding sources of funds with which to finance operations are most critical in view of Government's limited fiscal capacities (see Annex D, section 2.1) and the current low level wages and salaries existing throughout the Lebanese civil service. However, the MOH has several ideas (discussed in Annex D, Section 3.7) as to how surmount staffing and operating cost financing problems; these include implementing the 1978 Autonomous Hospital Act which, among other things, would allow public hospitals to compensate professional and non-professional staff in ways not allowed by the civil service regulations and to accept purely private, as well as public, patients.

Ultimately, the issue concerning the desirability or undesirability of expanding the number of public hospital beds rests on considerations of strict medical necessity and need, and the economic justification for doing so. The economic issues regarding the construction of 3000, or even any, new public sector hospital beds are explored in the report of the health sector finance team (Annex D, Section 3.8). The crux of the issue is whether or not the GOL can afford to construct and operate a larger number of public sector hospitals. Many alternatives to a massive expansion of the number of public sector hospitals exist. Some of these include an aggressive program involving construction of several health centers with limited numbers of inpatient beds, aggressive regulation of the private medical sector to make it behave responsibly in terms of quality of care provided and costs; the fostering of private sector initiatives aimed at quality improvement and cost reduction; and leave in private sector health facilities to fill gaps in the system, while at the same time regulating it to behave responsibly in terms of quality of services provided and prices charged to consumers. In making public policy decisions, cost effectiveness (obtaining the desired outcome at least expenditures of public funds) must be a major ingredient in the decision making process. Time and space did not permit the health sector finance team to cost out all the options available. However, it was possible to analyze some of the critical assumptions and implications of the MOH contemplated policy of greatly expanding the public hospital sector.

The crux of the MOH's proposed economic justification for expanding the number of public hospital beds is its belief that a patient day of hospital care can be provided at a cost of LL 200 in a public hospital, while the MOH on the average is currently reimbursing the private hospital sector LL 300 per day of hospital care. In short, the MOH believes that if it had beds, it could save LL 100 per patient day of care. Yet, if professional services costs were eventually to be equalized, how could there be a difference between per day costs in public and private hospitals? The answer is that either the private sector is "cheating" or that some element of cost has been left out of the public hospital per patient day cost. We believe that both cases are likely to be true. However, to the extent that the dfiferences lies mainly on the side of private sector abuse, the solution is regulation and better enforcement, not construction of additional public hospital beds. Thus attention is focused on missing elements of costs.

From discussions with MOH officials it is clear that little attention is paid to costs of general medical administration, maintenance, and hospital costs. This is understandable. It is inconceivable that the LL 200 per patient day figure as the cost of a day in a public hospital could include an appropriate allowance for general medical administration, maintenance, and replacement costs of capital. The analysis assumes that the stated LL 200 public sector cost per patient day includes an allowance for general medical administration and maintenance, which are very likely to be small by comparison with capital replacement costs. MOH officials admitted that capital replacement costs were not taken into account. This analysis, therefore, focuses on taking into account the major cost implications of making an appropriate allowance for capital replacement.

Note that the higher the occupancy, the greater the number of patient days, and the higher are total operating costs relative to the capital costs of the facility. The maximum R/D ratio for any given hospital, costs per unit of service remaining constant, is reached at 100% occupancy.

Making allowance for capital replacement, the central questions on which analysis must shed light are the following:

- At what level of occupancy would public hospitals have to operate in order to be able to compete with average private hospital sector per patient day costs of LL 300?
- What would be the implications for public sector reimbursement, if the government were to build and operate 3000 new beds?
- What would it cost Government to construct 3000 new public sector beds and what would it cost to operate them annually?

The analysis uses a cost of LL 440,000 ($110,000) as a reasonable estimate of the current per bed cost of a medium technology public sector permanent hospital in Lebanon, and assumes that each bed is available 365 days of the year. (Thus, 3000 new beds potentially could provide a total of 1,095,000 bed days of service annually.)

Since economies of scale in the rendering of medical services often are largely absent in a given facility, it also assume that recurrent medical costs of service are LL 200 per patient day and remain constant regardless of

level of occupancy. Average length of stay (ALOS) is assumed to be 6.0 days, roughly the same as in the private hospital sector in Lebanon presently. Capital replacement costs are assumed to increase at a rate of 10% compounded annually. However, public hospitals are assumed to collect revenues and invest them at 15% compounded annually, so as to be able to replace capital stock over a 20 year period. (This is a very conservative assumption that is highly in favor of the MOH's case that it somehow can provide services more cheaply than the private sector).

Calculations were made using both zero and 10% inflation rates annually compounded with respect to all elements of costs other than capital replacement costs; the results presented here are for the zero rate, but Annex N gives results for both rates.

Assuming that hospital bed capital replacement costs increase at 10% compounded annually, the replacement cost of a bed increases from LL 440,000 ($110,000) to LL 3.0 million ($740,000) in 20 years. However, since replacement funds are assumed to be invested at 15% compounded annually, it is necessary to set aside and invest only LL 28,893 ($7,224) annually per bed in order to provide for replacement at the end of 20 years. This LL 28,893 represents an amortized annual capital replacement cost that must be covered by annual revenues. When divided by annual patient days, which depend on the level of occupancy, the resulting figure represents an amortized capital cost per patient day. Total operating costs per patient day in this analysis represent the sum of recurrent medical costs and amortized capital costs per patient day. (Recurrent medical costs, amortized capital costs and total operating costs per patient day are presented in Table 3.8.2.1 in Annex D, by selected levels of occupancy rates.)

The answer to the first question posed (as shown in Annex D, Table 3.8.2.1) above is that in order for the MOH to replace its capital stock at the end of 20 years and to produce patient care at an average cost of LL 300 per patient day, public hospitals on the average would have to be 80% occupied. The MOH could produce patient services at a cost below what it is currently reimbursing private hospitals, LL 300, only if it were able to achieve an occupancy rate above 80%. In the years prior to the war, MOH hospitals averaged only about 40% occupancy (See Section 2.3). Thus, given the stigma currently attached to public hospitals, it would be very difficult for the MOH to boost public

hospital occupancy rates to level of 80% or beyond in the near future. Evidence that is available suggests that even private hospitals, on the average, are achieving only 60% occupancy. (If private sector hospitals' costs were identical to those used above for the public sector hospitals, operating at only 60% occupancy and receiving on the average only LL 300 per patient day would imply losing money at the rate of LL 34 per patient day. It is possible that most private sector hospitals earn sufficiently higher rates on private patients to cover losses on public patients. Capital replacement for private hospitals voluntary may be accomplished through charitable contributions at some point in the future. Other private hospitals probably place little or no concern on capital replacement, and hence underestimate their total operating costs.)

To determine the implications of the construction and oepration of 3000 additional public hospital beds for private sector reimbursement, we have to determine the impact of public hospital bed expansion on private sector admissions, patient days, occupancy rates and costs per patient days. If we assume that the total demand for hospital services remains in constant (see discussion in Annex D) and that operating costs are the same in both the private an public medical sectors, and if public hospitals (including the 3,000 proposed additional beds) achieved an average occupancy rate of 80%, then public hospitals will provide 876,000 patient days of service per year, and private sector patient days of service would decline from 1,138,800 to 262,800 (1,138,000 - 876,000). This would imply a private hospital sector occupancy rate of roughly 14% (262,800 : 1,898,000). Only a very large increase in overall demand for hospital services could maintain even the already relatively low private sector occupancy rate at 60%.

At 14% occupancy, private sector hospital patient day costs would exceed LL 600. If private hospitals costs are actually higher than those assumed for the MOH in this analysis (as the MOH contends), reimbursement per day of patient care in the private sector would also be higher. Thus the answer to the second question posed above is clear: <u>if the MOH were to build 3000 more beds, the private hospital sector may well cease to exist, unless public sector reimbursement agencies were willing, at least, to double the rate of reimbursement paid per patient day of private hospital service.</u>

(The answer to the third question posed above in this section, concerning what it would cost to build and operate 3000 additional public hospital beds, depends upon occupancy rates and other factors and is presented in tabular form in Annex D, assuming that the total initial costs of constructing 3000 new beds would be LL 1.32 billion (LL 440,000 x 3000) and that roughly LL 87.0 million must be set aside and invested annually for capital replacement (LL 28,893 x 3000).

3.6 MANPOWER AND TRAINING

Health manpower and training in Lebanon are imbalanced in several ways. There is no evidence that more physicians are needed, but new (unauthorized) medical schools have begun to function. At the same time, there are shortages both of nurses and paramedical personnel and of training facilities for them.

3.6.1 Health Personnel

Lebanon has no comprehensive plan for health manpower development. The information base required for adequate health manpower planning is lacking, and the data available are deficient. Data on various categories of manpower and on their numbers and distribution are incomplete, sometimes fragmentary and not analyzed. The lack of accurate and reliable information jeopardizes the efforts to formulate, implement and evaluate health and manpower plans. However, until an effective health information system is developed, the basic information currently available (if properly compiled and used) could justify some immediate action on priority problems that need urgent attention. Recently the Minister of Health appointed several task forces to study various aspects of the health system. The data given below and in Annex F (Health Manpower and Training in Lebanon) were obtained from the reports of these task forces and during the mission's visits to health agencies and facilities.

In 1980 there were 2 404 practicing physicians in the country, out of a total number of 3 383 physicians registered in Lebanon. Of the remaining registered physicians, 252 were known to be residing permanently overseas and 727 could not be traced to their known addresses. It was suggested that a number of the latter group were living temporarily outside Lebanon. Considering the estimated population of Lebanon (3 000 000), the number of practicing physicians provides for a reasonable physician: population ratio (1[:]1 248) compared to other neighbouring and developing countries. However, the health care services are characterized by geographic maldistribution of physicians, as can be seen from Annex Table F-1. The physician:population ratio in Beirut is three times higher than in the other areas of Lebanon, with one physician per 525 persons in Beirut. The majority of physicians work in the private sector, and of those who work with the Ministry of Health, approximately half do so on a part-time basis (Annex Table F-2). A large proportion of practicing physicians (58%) are specialists.

About 52% of all physicians registered between 1930-1980 graduated from medical schools outside Lebanon. In recent years there has been a steady increase in the number of registered physicians graduating overseas, with a peak of 76% in 1979-80. Annex Table F-3 shows the origins of the diplomas of 852 Lebanese physicians registered by the MOH during 1971-1977. All physicians must apply for and pass an examination (colloquium), organized by the Ministry of Health, before they are licensed to practice in Lebanon and are registered.

By contrast to physicians, there is marked shortage of nurses and other allied health personnel. (Annex Table F-4).

3.6.2 Health personnel training institutions

The main health personnel training institutions in Lebanon are shown in Annex Table F-5.

There are two well established medical schools, one at the American University of Beirut (AUB) and the other at St. Joseph University. Both are private institutions more than a century old. At present AUB admits about 86 medical students per year and the St. Joseph University admits 110. The

mission was informed that two new private medical schools, recently started and not officially recognized, are now training students in the premedical stage. With the establishment of these new medical schools and the return of increasing numbers of Lebanese medical graduates from abroad, the numbers of physicians would exceed the health needs of Lebanon and create serious problems. Medical education is expensive, and the need for its expansion should be carefully studied on the basis of the country's health development plan.

There are ten nursing schools, of which three (AUB, St. Joseph University, and Lebanese University) offer training at the Bachelor Degree level. The rest train nurses to the technical baccalaureate level. The AUB Faculty of Nursing also offers an Associate Degree in nursing (2 years) which does not fit with the Lebanese legislation which stipulates that only two types of nurses are recognized, BS and Technical Baccalaureate. In 1981 the total numbers of graduates from all nursing programmes was 285. It is important to note that all the nursing schools except for two are located in Beirut and belong to the private sector.

There are 498 nursing aides in hospitals and health centres throughout the country. There is no specific educational requirement for their recruitment. They are attached to hospitals for in-service training.

There is one school for training sanitarians in the country. The training is conventional and the graduates' role is limited to inspection of housing, food stores and restaurants and to enforcement of legislation.

There are now efforts by voluntary organizations to initiate some projects for training of village health workers, in collaboration with the Ministry of Health. Plans for training village health workers on an experimental basis in Saida have been developed but not implemented.

The Faculty of Health Sciences of the American University of Beirut provides training at the Bachelor Degree level (B.S.) in environmental health, biostatistics, and medical laboratory technology. The curriculum of the B.S. programme is under review and it is planned to provide for a core course during the first 1 1/2 years of the programme, to be followed by

1 1/2 years in the specific field of study. Consideration is also being given to the introduction of two new programmes, one in health education and the other in administration. The Faculty of Health Sciences also offers training at the Masters level in epidemiology and in general public health, as well as in health and hospital administration. The Master in Public Health can be taken with emphasis on hospital administration and for physicians with experience takes nine months. The Ministry of Health has so far not taken advantage of these training facilities for training its staff. Presently, no training in occupational health exists or is planned.

There is need to strengthen public health teaching programmes and to ensure their comprehensive coverage of the various basic disciplines. The contents of training are to be related to the tasks envisaged for the particular category of health workers. However, a minimum need will be that all health workers acquire the basic principles of public health and particularly (given the need for better information and for an epidemiological approach to decision making) ability to make observations and to record, count, classify and present their data. In-service training should prepare all present health workers for their roles in a strengthened health services system, including an adequate health information system, through organized courses, training manuals, and regular supportive supervision by the central and regional staff.

3.7 HEALTH SERVICES DELIVERY: SPECIFIC TYPES OF SERVICES

Lebanon's health sector is overwhelmingly oriented toward curative care in all of its aspects: financial, facilities, personnel, training and services. This section summarizes the mission's findings regarding four important areas of health services: Primary Health Care, Maternal and Child Health, Immunizations and Other Preventive Services, and Emergency Medical Services. The section's emphasis is on prevention.

3.7.1 Primary health care

The primary health care approach is not new to Lebanon. Law number 16352, passed in 1964, described how Lebanon was to be divided into four 'polar

centres' of health and included detail on the hospital, health centres and community activities. In 1980 a further law was passed to set up health centres across Lebanon. However, various political, economic, planning, and management difficulties have hindered putting these laws into effect, to the extent that there is not one health centre in the country that delivers comprehensive primary health services. Also, to many people in Lebanon primary health care means primary medical care mainly available from hospitals and dispensaries, whereas the emphasis, adapted to factors within Lebanon, should be on the provision of front-line, first contact services and on continuity of care (referral system). Primary health care should be developed within the framework of five basic principles: equitable distribution, community involvement, focus on prevention, a multi-sectoral approach, and appropriate technology. Within the framework of these principles, the basic components of a primary health care service are :

- Education about diseases, health problems, and their control
- Safe water and sanitation systems
- Maternal and child care, including family planning
- Immunization
- Appropriate treatment of common diseases and injuries
- Provision of essential drugs
- Promotion of proper nutrition

While there is a dense network of dispensaries (see section 3.5.1), the type of services delivered in them is governed by priorities set by the providers and therefore may not be in accord with the needs of the consumers.

3.7.2 Maternal and child health care

MCH services are provided in various settings (hospitals, dispensaries, basic services units, and by private practitioners). They are usually of a curative nature.

The predominance of curative over preventive services is alarming.

Patterns of treatment reflect linear cause/effect thinking with regard to health and disease. In line with such thinking, drugs are thought by many to be the answer to most health problems, and drugs are prescribed in an

indiscriminate and excessive way. (For example, oral rehydration mixtures seem to be readily available and are given to children suffering from diarrhoeal disease, but unfortunately antibiotics and anti-diarrhoeal agents are often prescribed concomitantly. The hazards related to the administration of antidiarrhoeal agents, especially when coupled with antibiotics such as sulfonamides and/or neomycin, are described in many medical textbooks.)

The lack of regular and appropriate supplies of drugs/equipment in peripheral centres is obvious. These issues are clearly related to the lack of managerial and administrative skills and to lack of coherent directives at more central levels.

3.7.3 Immunizations and other preventive services

Immunization coverage varies greatly from community to community. Most health workers contacted believe that no more than 40-60% of susceptible subjects are protected. Coverage, however, has been much higher where concerted immunization campaigns have been conducted. It is striking that, despite low immunization levels and despite the disruption of communities and medico-social services for them, infectious diseases among children do not seem to be a major health problem so far. It would be wrong, however, to believe that no vaccinations are needed as long as there are no signs of acute illness. Sporadic cases of poliomyelitis for example, should alert the responsible authorities and lead to preventive action and there are anecdotal reports of isolated cases of poliomyelities.

According to the organigram of the MOH, preventive and promotive health services at the peripheral level are the responsibility of the Qadaa medical officers and the health workers. Unfortunately the Qadaa medical officers are almost totally occupied with the provision of curative services in their districts. The number of health workers who are actually engaged in peripheral health services is very small. Their job descriptions are vague and they have little, if any, impact. This rather weak peripheral structure is reflected all through the preventive and promotive activities of the MOH.

steadily growing, the maintenance and timely provision of their materials and equipment seem to be unsatisfactory. Training of manpower is episodic and non-professional. Fire brigades respond only to selective calls (e.g., drowning, fires, and accidents). The Ministry of Health has been running a "secours-routiers" service but this has dilapidated gradually over the past years and some branches are said to have become subject more and more to political instigations.

Within the private sector some hospitals provide emergency care of variable quality and at high costs to consumers and to contractors such as the MOH. The "équipes actives secourists" of the Lebanese Red Cross (LRC) have been operating in a reliable, continuous and enthusiastic way throughout all those past troubled years. However, their services are based on volunteers, training is on the level of first aid only, and governmental financial support is meager.

The Government of Lebanon has ordered a task force to make plans for a comprehensive EMS programme for Lebanon and to study, recommend and implement means to upgrade hospital emergency departments in government hospitals as part of the overall EMS plan. In 1982 the EMS Committee completed an extensive review of 12 government hospitals, including a review of supplies and equipment available, of staffing and training completed, and of capabilities to provide prompt, efficient emergency care.

Since a 1979 visit of a US team of EMS experts, there have been several meetings in Lebanon and the U.S. regarding projects for strengthening MOH hospital emergency departments and EMS training and manpower development in Lebanon. While the strategy of putting the project into action has been changed several times in the light of security problems and hostile conflict situations, the overall objectives have remained the same:

- Upgrade the hospital emergency departments of government hospitals to a level compatible with the needs of the Lebanese population, principally those in the lower socio-economic level.
- Implement an in-hospital training programme.
- Implement a pre-hospital training programme.
- Establish and improve management and administration of hospital emergency departments in line with overall EMS system development.
- Develop criteria for EMS personnel certification.
- Upgrade the knowledge and skills of physicians in the urgent care of critical patients.

The EMS Committee will work under the auspices of either the CDR or the Minister of Health.

3.8 Support systems

Section 3.8 presents a brief overview of general needs for management support for health services, then describes the situation and needs in three specific areas of support: Drug Supplies, Transfusion Services, and Laboratory Services.

3.8.1 Overview of management support systems. Management support systems, from the central levels to the most peripheral levels, appear inadequate to provide needed support to health services, either at present or with the proposed improvements in those health services. The proposed decentralized AHAs will need much more effective support than the MOH currently provides to its facilities and personnel, and much more effective support than the current MOH systems are probably capable of providing without substantial changes. Effective management support systems will need to be established or strengthened or reintroduced. One of the current problems seems to be that there are, in effect, situations which encourage health services providers to not seek to have support services and management support systems functioning well. Members of the mission were told several times that health services workers routinely provide services in non-public facilities which are not available in public facilities because of equipment breakdowns, and that this decreases their interest in equipment repair to such an extent that they do not press for such repairs and may sometimes even sabotage public equipment by removing parts. Similar situations are said to exist in other areas of support.

Strong, effective management systems are needed in all of the following areas:

- Personnel Management: need assessment, position descriptions, recruiting, testing, selection, career planning, promotion, and dismissal.
- Logistics: procurement, warehousing, and distribution of supplies and materials.
- Maintenance: preventive maintenance, repair, and upkeep of equipment, vehicles, and buildings.

- Information systems: collection, organization, and reporting of information for planning and management decision-making.
- Financial systems: budgetary, accounting, billing, collection, expensing.
- Planning.
- Monitoring, quality assurance, and evaluation.

Some of these systems are covered in various sections of this report and its annexes and in several areas of the mission's recommendations, but there is a definite need to specifically consider the relationships and interactions among them and to establish systems for dealing with both routine work and routine problems in each area, as opposed to only initiating special efforts which will deal with the currently most salient problems. Management systems and routines should be developed which will enable the workers and managers available within the health services to deal with most problems in accordance with standardized procedures. This "management by exception" would free the leaders and higher level managers of the health services to focus on the innovations, improvements, and non-routine problems which really require their full abilities. It would also make the functioning of the system less dependent on individual personalities, and with an adequate information system it would permit monitoring of performance, recognition of unusual situations, and early responses to needs for special actions or for changes in the system.

3.8.2 Specific support systems: Drug supplies

The drug regulatory and drug inspection services in Lebanon are a responsibility of the Department of Pharmacy within the Ministry of Health. The public, the health professions, and the Government are very concerned about current problems in the pharmaceutical sector, including high costs, uncertain quality, the presence of illegal (unauthorized) pharmacies, and the sale of counterfeit or otherwise dangerous or ineffective drugs. There is also professional concern regarding the excessively large number of drugs on the market and the relative lack of Government control of the entire situation.

3.8.2.1 Drug expenditures. Drug costs constitute a major component of the costs of health care, particularly out-of-pocket expenditures. An International Labor Organization (ILO) study on health care costs estimated that expenditures on drugs represent 42% of total expenditures on medical care in Lebanon and 6% of individual income. Most recent figures on the reimbursement for charges for drugs paid by the NSSF amount to 55% of total outpatient charge reimbursement (LL 253 / LL 462) and 12% of reimbursement of inpatient charges (LL 34 / LL 283). These figures are based on average per insured costs on an annual basis. The composite or weighted average for reimbursement of drug charges in 38.7%. This figure corresponds closely with the 42% reported in the ILO study.

3.8.2.2 Drug Legislation. There is legislation on all aspects of pharmaceutical import, manufacturing, sales, price fixation, and drug inspection. However, these laws were formulated around 1950 and most officials felt that the laws need revision, strengthening, and updating.

3.8.2.3 Number of pharmacists, pharmacies (legal and illegal), and pharmaceutical importers, agents and manufacturing firms in Lebanon. In Lebanon there are 1125 pharmacists, 616 pharmacies, 95 importers of finished product drugs, 7 manufacturing units, and a handful of importers of generic drugs. Of the 616 pharmacies, 296 are legally licensed pharmacies, while there are 320 "illegal" pharmacies. "Illegal" pharmacies are those pharmacies that started selling drugs after 1954 when no more licenses were given by the Government. These started to function without licenses and are "illegal" for several reasons. One reason mentioned was that the present law specifies a distance to be maintained between pharmacies, and these pharmacies do not maintain this distance and are therefore illegal. The Government is not clear as to what can be done to these pharmacies now. Since some are long-established and may be meeting a need, it will be difficult to close them down, and efforts probably will be made first to allow them to comply with laws and become legally authorized pharmacies.

3.8.2.4 Number of Drugs on the Market. The exact number of drug entities available on the market in Lebanon is perhaps around 6,000, but this is a guesswork figure. The actual figure is not known. The American University of Beirut has a drug formulary that runs to about 2,000 preparations. When the last index of registered drug entities on the market was compiled in 1970, the number appeared to be around 2,000. The number of drugs used by the private sector is definitely excessive. Some persons in the field put the number as high as 16,000 preparation, while still others say it is between 8,000 and 12,000. This does not include many types of drugs from many different sources, entering the country during and after the war as aid. The Government is very interested making an inventory of all drugs on the market and a plan has been prepared for making one and publishing the results (as a computer printout). There is an immediate need for such an inventory if reduction in the number of drugs to be used in the country and preparation of lists of essential drugs for different levels of health care (including primary health care) can only be carried out after Government knows how many drugs are on the market. Drugs beyond the 2,000 number in 1970, which are not registered, would need to be registered after an inventory had been made.

- Information systems: collection, organization, and reporting of information for planning and management decision-making.
- Financial systems: budgetary, accounting, billing, collection, expensing.
- Planning.
- Monitoring, quality assurance, and evaluation.

Some of these systems are covered in various sections of this report and its annexes and in several areas of the mission's recommendations, but there is a definite need to specifically consider the relationships and interactions among them and to establish systems for dealing with both routine work and routine problems in each area, as opposed to only initiating special efforts which will deal with the currently most salient problems. Management systems and routines should be developed which will enable the workers and managers available within the health services to deal with most problems in accordance with standardized procedures. This "management by exception" would free the leaders and higher level managers of the health services to focus on the innovations, improvements, and non-routine problems which really require their full abilities. It would also make the functioning of the system less dependent on individual personalities, and with an adequate information system it would permit monitoring of performance, recognition of unusual situations, and early responses to needs for special actions or for changes in the system.

3.8.2 Specific support systems: Drug supplies

The drug regulatory and drug inspection services in Lebanon are a responsibility of the Department of Pharmacy within the Ministry of Health. The public, the health professions, and the Government are very concerned about current problems in the pharmaceutical sector, including high costs, uncertain quality, the presence of illegal (unauthorized) pharmacies, and the sale of counterfeit or otherwise dangerous or ineffective drugs. There is also professional concern regarding the excessively large number of drugs on the market and the relative lack of Government control of the entire situation.

3.8.2.5 Manufacturing firms. Of the 17 manufacturing firms, two have very good facilities. These are the Middle East Pharmaceutical and Industrial Company, S.A.L., (which formulates a wide range of Ciba Geigy drugs) and Frost and Company (which produces a range of Merck, Sharpe and Dohme products). Both these manufacturing units also have a large range of their own products. The mission's pharmaceutical expert visited one of these and was impressed by the quality control facilities available, the tests being carried out, and the calibre of the personnel. The second is said to be similar. However, it is said that standards of production and quality control are not the same in the other fifteen manufacturing units, which are much smaller.

3.8.2.6 Registration of New Drugs. The Committee for Registration of New Drugs, which is responsible for approving registration of new drugs in Lebanon, includes the Director General of the Ministry of Health, the Chief of Inspection of the Ministry of Health, representatives of the Order of Physicians and the Order of Pharmacists, and one other Ministry of Health official. A licensed agent or pharmacist may apply to register a new drug in Lebanon, using a form entitled "Information and Documents demanded from foreign manufacturers of pharmaceutical specialities". A drug not being marketed or approved for use in its country of origin is not considered further for registration in Lebanon. A non-refundable fee of Ten Pounds has to be paid by the agent when requesting registration of the drug. If the Pharmacy Department authorities or the Committee for Registration of Drugs wants the sample analyzed in a laboratory approved by the committee, the agent has to pay for the analysis, with laboratory reports sent to the agent. The criteria adopted by the committee for considering whether the drug should be registered in Lebanon are:

(a) Safety of the drug
(b) Efficacy of the drug
(c) Whether the drug is released in the country of origin, and
(d) Whether there is need for another drug of that type in the country

The committee is attempting to keep to a minimum the new drugs that are registered; since 1981, the committee has allowed registration of only 40 drugs. If the committee is unable to decide on the advisability of registering a particular drug, expert opinion is sought from the American University of Beirut or Hotel Dieu experts.

3.8.2.7 Import of generic drugs. Import of generic drugs is usually in response to tender enquiries. For the last two years importers have had to show drug control authorities a certificate from the official authority in the country of production indicating that the Government confirms that the generic drug has been produced according to the good manufacturing practices code. This is in accordance with the WHO Certification Scheme. Unfortunately, prior to two years ago the Government allowed importers to import generic drugs without showing this certificate. Authorities feel that this may have allowed many generic drugs of a substandard quality to be brought into the country and sold under false brand names.

3.8.2.8 Sale of Illegal Drugs on the Market. The Government and the public are seriously concerned about illegal drugs being sold on the market, and Government has requested assistance in overcoming this problem. Discussion with persons involved in control, import, manufacture

and selling of drugs indicates that illegal drugs find their way onto the market in several ways. Some drugs, often of inferior quality and perhaps past the expiry date, are smuggled into the country and find their way into pharmacies. Substandard drugs may also be produced in areas not totally under drug inspection control of the Government and marketed. Some generic drugs are imported, put into cartons of reputed brands names (also illegally produced), and marketed. Several measures could help combat illegal drugs, such as providing facilities or services to the Ministry of Health for testing the quality of drugs; strengthening the inspectorate of the Ministry of Health; and amending, strengthening, and enforcing the existing drug legislation. Since two months ago, the Inspection Visit has tried to insist that all drugs exhibit a label which indicates the batch number, date of expiry and the price for the public. All drugs not exhibiting this label would render the pharmacist liable to prosection. Strictly enforcing this rule would improve the situation.

3.8.2.9 Purchase and Distribution of Drugs for the Public Hospitals. The Central Stores Depot procures, by asking for yearly tenders, drugs that are then stored in the Central Drug Stores (one Chief Pharmacist supported by eight others) and distributed to the Government hospitals in the country. Site visits to the Government hospitals indicated that, in general, there were adequate numbers and types of drugs. There were, of course, instances of unusually long delays in replenishment of the drugs, but given the present conditions it is surprising that things were not worse. The stores procure about two entities (which are very close to the WHO List of Essential Drugs) by generic names and then supply these to the public sector hospitals. Personnel at the stores and at the hospital dispensaries say that drugs not being utilized before their expiry dates is not a significant problem.

3.8.2.10 Inspection of drugs and pharmacies. The Chief of the Drug Inspectorate Section of the Department of Pharmacy is assisted by eleven inspectors. This unit is responsible for ensuring that no illegal or substandard drugs are sold on the market and that proper pharmaceutical practices are observed by importers and retailers. The same group is responsible for inspection of pharmacies. Inspectors visit each of the legal pharmacies every two months, checking presence of pharmacists; expiry dates of drugs; examination of all drugs sold (e.g., is the drug registered, does it have a batch number, how does the quality appear on visual examination, the carton, etc.), and storage facilities (especially storage of perishable items such as insulin, vaccines, and I.V. solutions). The shelf life of powdered milk and baby food is also checked. Samples of drugs suspected to be illegal are taken for analysis, but lack of adequate facilities for quality testing of drugs is said to act as a brake to inspection activities. It may be that a drug entity is all right but the packing is false. In these cases, the pharmacist is held responsible. If the drugs has been imported by an importer, he and the pharmacist who sells the drugs are held responsible. If the importer denies importing the drugs, then the pharmacist is held solely responsible.

3.8.2.11 Lack of Drug Testing Laboratory The committee members and the Director-General of the MOH consider not having any Drug Quality Assurance Laboratory in the country to be a great handicap and request assistance in that area. Very few samples of drugs can be analyzed at the Drug Laboratories Section of the Central Public Health Laboratories in the range of tests required. The Head of the Pharmacy Inspection Services

noted that samples which his unit suspects are substandard or illegal (i.e., not registered, substandard, or illegally presented under a false brand label) cannot be tested in Lebanon or outside the country for lack of funds for outside testing; this hampered his unit's programme of work in attempting to ensure the safety and efficacy of the drugs on the market. This need is referred to again in the drugs and pharmacy annex, in dealing with the Central Public Health Laboratories.

3.8.2.12 Drug Analysis Section of the Central Public Health Laboratories
The Drug Analyis Section of the Central Public Health Laboratories had, before the war, been carrying out analyses of several drugs. The WHO Regional Office at Alexandria had provided consultant support and fellowships to the drug analysis section. At least three staff members had been awarded fellowships for training in quality control of drugs. The laboratory was damaged badly during the war and a lot of equipment is kept together in one room and probably cannot be used again. Other equipment, not apparently damaged, is also not working. The laboratory authorities are taking steps to see what damage was caused by the shelling. This laboratory is the major facility of the Government in the area of investigational health sciences. The Government has now proposed that a National Drug Quality Assurance Laboratory be established as part of this laboratory. Space is available, as also the other facilities that will be shared by all the departments, (e.g., stores, administration services, animal facilities, etc.). Officials interviewed felt that it would be appropriate to house a National Drug Quality Assurance Laboratory at this centre. Although the only staff left in the Drug Analysis Section is one pharmacist, trained by WHO in quality control procedures, and one technician (the rest having left during the war), the Director of the Laboratories felt that he would have no problem finding suitable persons to work in the laboratories if equipment and supplies were provided by WHO. WHO is executing already a UNDP project on further development of central facilities at Beirut and development of regional laboratory facilities at four regional centres, with a WHO Consultant already in position.

3.8.2.13 Drug Prices. The Committee for Registration of New Drugs also fixes the price of the drug for which registration is sought. On the F.O.B. price of the drug, 7.5% is added for freight; 7.0% for customs, insurance and port fees; 10.0% for the importer; and 30.0% pharmacy's profit. Because each of these additions includes the previous ones, the rise in the price of a drug is 64.5% over F.O.B. value. A recently formed committee from the Department of Pharmacy has the mandate of looking into the prices of drugs already on the market but is still discussing the guidelines to be followed by them. MOH officials and advisors are all concerned at the high prices of drugs and of drugs be reduced. Particularly unacceptable to them is the fact that prices of the same drugs are cheaper in Syria and Jordan. It was asked, for example, why the same pharmaceutical concern has different prices for the same drug in the same packing in different packings. The national authorities are fully aware that the numbers of pharmaceutical import agents and pharmaceutical products are much higher in Lebanon than in Jordan and Syria and that this results in unnecessary use of unnecessary agents, leading to higher costs. However, reduction in the number of entities to be used in Lebanon could take a long time and it may not be possible for the Government to reduce the number of pharmaceutical import agents and pharmaceutical companies. The comparative figures are shown below.

Country	No. of Pharmaceutical Importing Agents	No. of Pharmaceutical Companies	Number of Pharmaceutical products on the market
Lebanon	89	488	12,000
Syria	Govt. (2)	196	3,000 (1970)
Jordan	36	189	2,538 (1979)

3.8.2.14 MOH Task Force on Drugs and WHO Programme on Drugs. The Government recently formed a Task Force on Drugs, with the same aims and objectives as the WHO Programme on Drugs. The task force is very interested in determining the number of drugs on the market and then in reducing the number of entities that need to be distributed by the governmental channels. The group is also very conscious of the lack of drug quality control laboratory facilities in the country and have identified establishing such a centre as a priority need. Finally the task force is very concerned at the prices of drugs on the market and is making efforts to reduce them. There are ample opportunities for future collaborative effort between WHO and the Government of Lebanon in the field of drugs.

3.8.2.15 Formation of an autonomous drug agency. The Government recently took a bold step in its efforts to reduce the cost of drugs. On 13 January 1983, by decree, an autonomous Office of Drugs/National Drug Agency was authorized, under control of the Minister of Health. The Agency will be responsible for the import, export, purchase, selling, distribution, and manufacture of drugs in the country. The head of the agency will be the President of its Executive Council, with a Ph.D. in Pharmacy, Medicine or Business Management. He will be a full time employee. The other members of the council will be two from the Department of Social Security (representing the Employers and Employees) and two others designated by the Minister of Health (with degrees in Law and Economics). There will be another member, a government official nominated by the Minister of Health. A Technical Committee will assist the Drug Agency. This committee will consist of: a professor of pharmacology from each of the two universities; a representative of the Ministry of Health (Head of Pharmacy Department); a representative of the Social Security Council (Head of Pharmacy Department); a representative of each Syndicate of Physicians (i.e., two persons); and two representatives of the Syndicate of Pharmacists. Each member should be either an M.D. or a licensed pharmacist in Lebanon. They should not be concerned, in any way, in business with drugs. The Technical Committee will: select drugs and pharmaceutical products for use in therapy and anaesthesia that should be imported, exported or manufactured in Lebanon; set conditions for calling tenders and the general conditions of purchase; check tha drugs received conform to technical specifications; and review lists of drugs at least once a year. The Executive Committee will also be assisted by appropriate administrative and support staff. The conditions of service, etc., will be specified in a decree taken by the Central Cabinet on the recommendations of the Minister. Other points mentioned in the decree include audit of the accounts of this Office of Drugs and the policy to be laid down for pricing the drugs. The Office of Drugs/National Drug Agency

will be granted a loan, as soon as the activity starts, on the recommendation of the Ministers of Finance and Health. The organization is not entitled to sell drugs or pharmaceuticals directly to the public except in emergencies which will be decided by the Council of Ministers.

3.8.3 Specific support systems: Transfusion services

Available information indicates that about 40-50 000 units of blood are transfused yearly in Lebanon. Of these about 35-40 000 are collected in the country, while 8 500 were sent from other countries in 1982. It is generally recognized that a population of three million would need about 150 000 units of blood, some of it divided into different components. The basic need for factor VIII (production of which is very limited in Lebanon) would be about 45 000 donor units (as cryo-precipitate).

There are three main sources of blood in Lebanon, in addition to what is received from international sources:

- The Lebanese Red Cross Blood Bank
- The Lebanese Transfusion Centre
- Private, Commercial Blood Banks

The Lebanese Red Cross Blood Bank was started in 1964, has continued with essentially the same structure, and lacks sufficient management and appropriate organization. The Red Cross has one centre each in Beirut, Jounieh, Tripoli and Zahle. It also has one unit in Beirut and one in Saida which do not collect blood but have refrigerators and distribute blood that is sent from the centres. The Lebanese Red Cross received 8 573 units of blood from other countries in 1982. It also collected 5 068 units of blood in 1982 from different hospitals in Lebanon. The 8 573 units received from other countries, plus the 5 068 units collected in Lebanon, make a total of 13 641 units from the Lebanese Red Cross in 1982. The Ministry of Health gives an annual contribution to the Lebanese Red Cross that roughly corresponds to the running costs of the transfusion activities (yearly LL 700 - 800 000). Hospitals and patients are not charged.

The Lebanese Red Cross Blood Bank is well known and respected and has several notable advantages. It has almost 20 years of activity and experience. Blood donation is voluntary and non-remunerated. It is neutral concerning the various population groups, and it has access to international assistance and expertise. However, it also has some disadvantages, including lack of sufficient management and organization, and its donor recruitment is not effective. Other disadvantages include lack of professional contact with hospital laboratories and hospital transfusion personnel, defective practice of delivery of blood to hospitals (with patients' relatives carrying the blood bags), and lack of arrangements for 24 hour service.

The Red Cross has since 1978 provided blood for transfusion of thalassemic children (about 150 thalassemic children at present), given at different hospitals, and now hopes to establish a transfusion center for their treatment.

The Lebanese Transfusion Centre (LTC), a non-profit association recognized by the Government as being of public utility, was started in 1972. The LTC has a centre in Beirut and branches in 8 major hospital laboratories, mostly in the Beirut area. The Lebanese Transfusion Centre collected 9 500 units of blood in 1982. 3 300 of those units were collected at Hotel-Dieu in Beirut. The Centre prepares blood components, including factor VIII (bleeding factor). In 1977 the Centre received substantial help from WHO, through the Government, in the form of equipment. This equipment was looted, during the fighting, but was partly recuperated in 1981. The Centre charges a processing fee from the hospitals, approved by the Ministry of Health. The rest of the budget is covered by a membership fee of the association and by donations.

Notable advantages of the LTC include the fact that it is a growing programme under dynamic and professional leadership, is not profit-oriented, and has good contact with hospitals. LTC's delivery of blood, laboratory testing, and quality control meet professional standards, blood donation is voluntary and non remunerated, and service is available 24 hours per day. Disadvantages of the LTC include its status as a private association (although recognized by the Ministry of Health) and the facts that it is not well known by all sectors of the population and has no formal affiliation to international organizations.

Private commercial blood banks also operate in Lebanon. The magnitude of their activity is difficult to estimate, but they may collect 40-50% of the total blood collected in Lebanon, (i.e., 20 to 25 000 units of blood annually). They serve mostly small and medium size private hospitals, but occasionally they also serve large hospitals when the blood supply from the Red Cross or the Lebanese Transfusion Centre is insufficient. Blood donors are paid different amounts depending on "market values". The price of rare blood may go very high. Some private, commercial blood banks may have quality controls, but most of them probably do not.

Information was obtained that some blood has also been collected by the Palestinian Red Crescent Society.

A limited amount of blood is collected from family members in emergency situations, when blood from other sources is unavailable.

Review of the overall status of blood transfusion services in Lebanon indicates the following:

- Lebanon has no national blood transfusion programme and no reference laboratory for blood type serology and transfusion.

- There is a distinct shortage of blood.

- A national programme is needed to meet the needs for blood for all patients and to assure that only blood of high quality is provided.

3.8.4 Specific Support Systems: Laboratory Services

Health laboratories are an essential tool for developing and implementing epidemiological surveillance and disease control operations. Lebanon needs to increase its capacity for laboratory services, especially to support preventive activities.

3.8.4.1 Curative-oriented laboratories Many private curative facilities have medical laboratories performing the most common clinical tests. Several private laboratories in major cities perform medical tests for ambulatory patients. No information is available concerning the resources and the activities of such treatment-oriented laboratories. In 1966, with WHO assistance, the Government set up laboratory diagnostic services in selected public hospitals (Baabda, Saida, Halba, Tripoli, Zahlé).

3.8.4.2 Prevention-oriented laboratories The Central Public Health Laboratory in Beirut, which partly met the demand for prevention-oriented tests of public interest (epidemiological surveillance, food microbiology, environmental health, drug control, etc.), slackened its activities since 1974, then stopped in June 1982. The facility was severely damaged by shelling in August 1982, but repairs have been completed (with assistance from Swiss Disaster Relief) and re-equipping is under way (with assistance from UNICEF and WHO). It can be hoped that the Central Public Health Laboratory in Beirut will be operational again within a few months. We do not know of any other prevention-oriented health laboratory in Lebanon. Government signed a project with UNDP and WHO in 1980 to develop and strengthen the Central Laboratory in Beirut, establish six public health peripheral laboratories, and train scientific and technical personnel. Implementation could only start in 1982.

3.8.4.3 Advisory Committee for Laboratory Network Development Programming in the field of medical laboratories should aim at developing a network of prevention-oriented laboratories, but basic data is needed to develop sensible and realistic programmes. An Advisory Committee on Health Laboratories could advise the MOH regarding the information needed, help the MOH to obtain it, and then help design and develop the laboratory network. The health laboratory network should be able to carry out tests necessary for epidemiological surveillance and communicable disease control; provide data for analyses necessary for the establishment of prevention and control programmes; participate in training of scientific and technical personnel in health laboratories; and undertake, at the request of the health authorities, any laboratory research which could help clarify and solve priority health problems in the country.

4. NATIONAL HEALTH POLICY

One of the main objectives of the WHO/LRCS mission was to respond to recent national health policy proposals of the MOH, particularly as presented by H.E. Dr Mroueh in December of 1982. Section 4.1 below summarizes some of the main features of the December 1982 proposal and of the proposed Area Health Authority Law (embodying many of the concepts presented by the Minister), which are also discussed in other sections of this report and in the annexed consultants' reports. Section 4.2 summarizes features of the 1978 law regarding the establishment and operation of Autonomous Hospitals (which provides another possible mechanism for carrying out many of the changes proposed in the Area Health Authority Law). Section 4.3 directs attention to several other aspects of health policy which are currently under active discussion among MOH officials and their advisors. (Section 4 is based on sections of the Health Finance Study team's report, in Annex D, which discusses the proposals and their implications in greater detail, particularly with regard to finances.)

4.1 THE PROPOSED HEALTH POLICY (DECEMBER 1982) AND AREA HEALTH AUTHORITIES

The Minister of Health proposed that the health sector be reorganized to make more effective use of public and private resources, under the guidance ("centralized control") of the Ministry of Health, but with "decentralized authority" delegated to Area Health Authorities (AHA). About fifteen such Area Health Authorities would be created, each of them responsible for the health care of about 200 000 people. Some key quotations from the Minister's address clarify the proposal:

> "This model calls for the pooling of all resources at the area as well as central levels .... interaction and partnership with the private sector institutions at all levels and wherever needed .... active participation and commitment of the community leaders - in the decision-making process - .... the ... Ministry of Health .... (as) the primary and most important manager of health services in Lebanon and has the greatest authority and responsibility in the health care delivery system .... The implementation of these activities require extensive capital and recurring financing. ... The financing of the health services will be the responsibility of the National Social Security Fund, itself rejuvenated through a well conceived system of fair taxation and co-sharing mechanism, between the citizens of Lebanon, the employers, and the State."

Consistent with the GOL policy of assuring all citizens the right to good health, Lebanon is in the process of restructuring its health care system. The Area Health Authorities concept, according to MOH officials, has been approved in principle at the GOL ministerial level and is being put into legal language so that it can be considered for legislative approval and enactment in the near future. The Area Health Authority (AHA) concept emphasizes comprehensive health care with a full range of preventive and curative service provided in public and private health facilities in a coordinated fashion.

The AHA law proposes a two-tiered system. First would be a central level Directorate which would guide the system primarily by setting standards, setting general policy, planning, and supervision, and generally reinforcing professional and administrtive systems.

The second level would be the area level consisting of some 10 to 24 "Area Health Authorities" (AHA), each serving between 200,000 and 400,000 persons. The AHA's will be autonomous entities. Each AHA would have a Director, a policy committee and at least one general hospital as well as necessary outpatient facilities in which to provide all levels of health care.

Primary care is emphasized in the AHA concept. Also envisioned is a financing arrangement which would permit individuals to select their provider: public, voluntary or proprietary. In essence there would be competition between the public and private sectors for personal health services. Categorical public health services such as food and water safety, sanitation, etc., however, also would be the responsibility of the AHA.

Each AHA would have the authority to structure its health care so as to meet its health needs most effectively. Innovative arrangements of physicians and health facilities into organizational structures capable of providing comprehensive care would be encouraged. Establishing an HMO, for example, has been suggested. The AHA would have the authority to set salaries or to establish alternative compensation packages for employees so as to attract and retain dedicated staff.

Three kinds of budgets are envisioned for the AHA: a capital budget to support facility and other development which would come from the central Ministry of Health; a recurrent or operating budget which also would come

mainly from the MOH; and finally an autonomous budget from funds collected by the AHA for services rendered to private patients and reimbursements from public sector and private sector agencies. The autonomous budget would be used at the discretion of the AHA. Autonomous budget funds could be used, for example, for development efforts, to cover operating deficits, or to provide incentives to health workers.

The specifics of the interrelationship of the three budgets would be more clearly defined as the AHA system is implemented. However, the Minister stated that the development budget would favor AHA's with relatively less-developed infrastructure and services, while the recurrent or operating budget would favor AHA's with more developed infrastructure and services.

To govern and manage the new AHA system, directors and advisory boards or councils are proposed for both the central level and the area levels. These boards aim at getting community representation into decision making.

4.2 THE AUTONOMOUS HOSPITAL ACT OF 1978

The act proposes to establish autonomous public hospitals, one for each province. The act also allows for extension of the autonomous mechanism throughout the provinces to all MOH health facilities and services.

A board of directors is created which is responsible for the autonomous hospital system, but which reports to the Minister of Health. Funding for the hospitals comes primarily from the MOH. Seven members sit on the board. Members include a representative each from St. Joseph's and AUB, the Director General from both the MOH and the NSSF, two representatives from the Lebanese Order of Physicians and one "expert". The board is to meet monthly.

Also meeting monthly is a separate board responsible for each hospital. This board consists of one professor each from St. Joseph's and AUB medical schools and two local citizens with college degrees.

Under the Act, hospitals can hire and fire employees and can set compensation for physicians and other employees essentially as they see fit. Hospitals may charge private patients directly for services.

To date, no autonomous hospitals have been implemented under the Act. However, with or without modification the Act could be used as the umbrella arrangement under which MOH hospitals could be given autonomy and flexibility to restructure their operations consistent with the needs of a revised health care delivery system.

In spite of several flaws (discussed in Annex D), the Autonomous Hospital Law presents many opportunities for the public hospital system to become more financially secure and to be able to compete with the private sector for the services of health professionals. While strictly speaking no hospital is currently operating to this law, the Batroun Hospital is operating under a semi-autonomous arrangement with the NSSF. The Minister of Health has been interested in the possibility that the Batroun Hospital might serve as a model for a reorganized public hospital system. Thus the experience of the Batroun Hospital (also reviewed in Annex D) is highly relevant to the objectives of the MOH.

4.3 OTHER POLICY ISSUES: FINANCE SYSTEM CHANGES AND EXPANDED MOH HOSPITALS

The MOH is actively exploring the financial implications of the proposed changes in the health care system, possible mechanisms to improve the financial base of Government-backed health care, and ways of improving the financial soundness of the mechanisms involved in the Government's support of health services.

The Ministry of Health has also expressd much interest in expanding its capacity to directly provided health services by greatly increasing the number of MOH hospital beds. If this were to become Government policy and an attempt were made to implement it, the consequences would be far reaching and, according to the finance study team's analyses (presented in Annex D and summarized in Section 3.5.5), unfortunate.

5. CONCLUSIONS AND RECOMMENDATIONS BY THE ASSESSMENT MISSION

This section lists, grouped by major areas of the health sector, the conclusions and recommendations of the assessment mission, proposing a series of actions to be taken in the period 1983 to 1986 to rebuild and re-establish the Lebanese health services and to improve their coverage and quality.

5.1 NATIONAL HEALTH POLICY

The Assessment Mission concluded that implementation of the major reorganization proposed by the Minister of Health, which contains many elements necessary for substantial improvements in Lebanon's health care system, was feasible and that immediate steps could be taken to begin to implement it, but that full implementation would require 10 to 15 years.

> RECOMMENDATION 01: The Mission recommends that steps be taken immediately to implement the Minister's plan, initially on an experimental basis in Beirut, if Government fully backs it, if the ministry's central level can be reinforced (including especially the anticipated establishment of an effective national health planning office), if adequate compensation arrangements can be made for all personnel in the project, and if fully qualified and experienced managerial personnel can be recruited for its central and area levels.

Implementation of the changes which the Minister of Health has proposed will require strong political support from the highest levels of government over a long period of time. This support must be assured. A public declaration of the Government's commitment to the policy and changes will provide that assurance, inform all parties that the Government is serious about taking control of the health sector and improving its performance, and give the Ministry of Health a very clear mandate to proceed to implement the changes with which the rest of the recommendations are concerned.

> RECOMMENDATION 02: Public reaffirmation should be made, by highest levels of Government, of health sector policy, goals, and objectives, in support of December 1982 MOH statement.

5.2 NATIONAL HEALTH PLANNING

The anticipated establishment of a national health planning unit is an important step in the direction of an organized health services delivery system. It will greatly strengthen the Government's ability to plan and carry out the other recommendations given below.

RECOMMENDATION 03: The Government should immediately use the national health planning unit to undertake national surveys of epidemiology; health knowledge, attitudes, and practices; health manpower; and hospitals.

RECOMMENDATION 04: The national health planning unit should seek to obtain early valid results of the surveys which it will carry out and should use those results as partial bases for national plans for health manpower development, epidemiological services, primary health care, a health center network, and a national master plan for hospitals.

RECOMMENDATION 05: Steps must be taken now to clearly define and establish the role of the planning unit, to integrate the unit (including a health manpower planning section) into the formal structure of the Ministry of Health, and to give it a permanent and institutionalized basis. This means emphasizing training of staff, making provision in future years' budgets to meet the recurrent cost upon expiration of grant funds, and making organizational arrangements which will maximize decision makers' use of the unit's findings and recommendations.

5.3 ORGANIZATION OF THE HEALTH SECTOR

Lebanon's health services delivery system, public and private, is fragmented and uncoordinated. The powerful private medical care sector dominates a weak and disorganized public sector health system which spends a large proportion of its budget on uncontrolled reimbursements for private sector hospital services of uncertain quality and need. The public sector is overly centralized, and both public and private health resources are concentrated in urban areas, particularly Beirut.

The major changes which the current Minister of Health has proposed for the health sector require and imply major reorganization of the sector.

RECOMMENDATION 06: Legislation should be enacted (preferably by the end of emergency powers on 6MAY83) to change the structure of the health sector by merging into the Ministry of Health (renamed the Ministry of Health and Social Affairs) the health sections of the Ministry of Labor and Social Affairs (i.e., the Office of Social Development) and the health services sections of the Ministry of the Interior (i.e., health services of Beirut and of other municipalities).

RECOMMENDATION 07: The Government should mandate the establishment of autonomous local Area Health and Social Affairs Authorities (AHAs) to arrange for the provision of quality health care to all Lebanese, within national health policy and with emphasis on equitable distribution, preventive services, first contact care, and continuity of care. The Government should use those autonomous local organizations (autonomous, but with strong Government backing, including strong central support) to furnish direct government-provided health services and to manage other arrangements (e.g., agreements with AHAs and contracts) for the provision of services. This would help avoid the constraints imposed by civil service systems. Implementation should begin in Beirut.

RECOMMENDATION 08: The Government should consider all public and private health resources in each AHA's geographical area as parts of one system in planning AHA budgets and operations, and place all of those resources (including especially hospitals) under the AHA for administrative and Government reimbursement purposes. Without control of hospitals, AHAs and preventive services would have only a minor role in health, while hospitals and curative services would continue to attract an undue share of attention and of budgets.

RECOMMENDATION 09: The Government should place major emphasis at the national level on primary (first contact) health care and on preventive programmes, and should structure the health care budget and incentive systems to ensure that the corresponding programmes will also be effectively implemented by and within AHAs. This is crucial for cost containment if the major needs of most of Lebanon's population are to be met.

5.4 FINANCING OF THE HEALTH SECTOR

In 1982 the public sector spent roughly LL 551.0 millions on both directly providing services and on reimbursing costs of private sector medical services. Roughly 80% of total public sector health spending was spent on private sector reimbursement. Total spending on medical services in Lebanon in 1982 is estimated to have been at least LL 1.1 billion, roughly 50% public and 50% private. Drug costs as a component of total health expenditures range from 38 to 42% of total outlays on health.

Health care financing mechanisms in Lebanon have many serious various problems and weaknesses. The health sector finance study team (See Annex D) concluded that changes in financial mechanisms could do little to improve the health services delivery system unless such mechanisms and incentives were incorporated into a system of financial mechanisms, policies, and procedures to assist in improving the performance of the health care system, with consistency between policies being implemented by both health care and

financial decision makers. The basic health sector policies that are required in order for a recommended financial strategy to have maximum support effect must be clearly presented prior to specifying a cost effective financial strategy that is consistent with the allocation of Government resources, demand and supply factors, cost containment, and other elements.

In planning, budgeting, and forming policies for the future, the Government should view both private sector and public sector health resources as potentially being mobilized toward assisting the government in meeting the health needs of the population. The health sector finance study team judged that little emphasis should be placed on expanding public sector services delivery systems, and great emphasis and commitment should be devoted to regulating the private health sector in a fashion which brings it into a more effective partnership with government in achieving the nation's health sector goals. They also concluded that there is no reason in principle, particularly from an economic perspective, not to rely on the private medical sector to provide the bulk of medical services, if effective regulation can improve quality of service, medical practice and performance, contain costs, and reduce duplication of facilities and other wastage. In the judgement of the finance study team, there is no economic justification for anything other than a modest and selective expansion of public sector medical facilities in the next five to ten years. They recommend places emphasis on regulation backed up and linked to a system of financial incentives which tends to harness public and private sector health resources to a common task of improving the health status of the population. Given the current situation existing in Lebanon, a great deal can be said for Government's adoption of a strong regulatory posture with respect to the private medical sector. A large volume of public sector reimbursement presents Government with an opportunity to use financial reimbursement broadly as an instrument of health sector policy.

To most effectively carry out the changes discussed above and the policy proposed by the Minister of Health, a national insurance financing mechanism for payment of medical services needs to be established which is standardized and uniform for the whole country and which is acceptable to the providers of services, the service users, and the payors of services.

RECOMMENDATION 10: The Government should establish the legal and administrative structure for a "National Health Security System" (described in Annex D, the Jeffers/Zukin financing report), by initially (a) consolidating all public sector health services cost reimbursements in one financing agency and (b) establishing a uniform fee schedule for health services. [Each of these latter two actions is also recommended in its own right.]

RECOMMENDATION 11: Detailed plans need to be developed for the implementation and management of the proposed National Health Security System. Given the numerous reimbursement mechanisms and payment schemes which exist, and the ways in which individual countries have tailored them to their own needs, planning such programs is a highly specialized and complex activity which should be undertaken by a team of experts to develop mechanisms most appropriate to Lebanon's special needs. A number of high level policy decisions will be needed to guide such a team's work.

RECOMMENDATION 12: Limits should immediately be established on the amounts of Government funds which will be available (especially through the MOH) for reimbursement of private sector health care services, and the Government should establish, monitor, and enforce quality standards (applicable also to Government-provided services) for all health services for which it makes reimbursement.

5.5 MANAGEMENT SYSTEMS

Management systems, from the central levels to the most peripheral levels through the proposed decentralized AHAs, need to be established or strengthened or reintroduced. Some of these areas are covered in various sections of this report and its annexes and are also dealt with in other recommendations, but there is a definite need to specifically consider the relationships and interactions among them and to establish systems for dealing with both routine work and routine problems in each area, as opposed to only initiating special efforts which will deal with the currently most salient problems.

"Management by exception" would free the leaders and managers of the health services (especially at higher levels) to focus on the innovations, improvements, and non-routine problems which really require their full abilities. It would also make the functioning of the system less dependent on individual personalities and, with an adequate information system, less susceptible to unnoticed deviations from norms.

RECOMMENDATION 13: Strong, effective management systems should be developed and institutionalized in all of the following areas:

- Personnel Management: need assessment, position descriptions, recruiting, testing, selection, career planning, promotion, and dismissal.
- Logistics: procurement, warehousing, and distribution of supplies and materials.
- Maintenance: preventive maintenance, repair, and upkeep of equipment, vehicles, and buildings.
- Information systems: collection, organization, and reporting of information for planning and management decision-making.
- Financial systems: budgetary, accounting, billing, collection, expensing.
- Planning.
- Monitoring, quality assurance, and evaluation.

RECOMMENDATION 14: Management systems and routines should be developed which will enable the workers and managers available within the health services to deal with most problems in accordance with standardized procedures.

RECOMMENDATION 15: In view of the history of lax fulfillment and enforcement of government contracts and service arrangements in the health sector, the Government must urgently develop and apply effective mechanisms to ensure adequate and acceptable performance, in accordance with clearly-specified terms, by hospitals, physicians, and others employed or contracted to provide or manage health services. Even with well-developed systems for monitoring and enforcement, dedicated people must be found who can be trusted to monitor and enforce such arrangements, and such people must be rewarded and kept in the health care system.

RECOMMENDATION 16: Combined training and system development activities such as WHO-backed Workshops for the Management Process for National Health Development should be initiated.

5.6 HEALTH SERVICES DELIVERY IN THE METROPOLITAN AREA OF GREATER BEIRUT

The health sector requires regulation and does not follow the principles of free enterprise and laissez-faire economics. Government has greater contact with organizations and inhabitants in Beirut, which also contains a high proportion of the nation's population. Reorganizing and operating the coordinated health services in Greater Beirut would provide needed experience on which to base development of other AHA's elsewhere in Lebanon.

A Master Plan for Health Services Delivery in the Metropolitan Area of Greater Beirut is needed (a) to provide a framework for orderly growth and rational expansion based on the population's health needs, and (b) to prevent uncontrolled and unbalanced growth, which is wasteful and inefficient.

RECOMMENDATION 17: The Government should begin its attempts to regulate the health sector in Beirut.

RECOMMENDATION 18: A master plan must be developed for coordination of health services delivery in the metropolitan area of Greater Beirut (including provision for recommendations 19 through 22).

RECOMMENDATION 19: Structural/Organizational/Institutional Coordination for Beirut should be established, including:

(a) A supportive and complementary working relationship between the private and the public sectors. An appropriate mechanism to achieve this coordination is an equitable insurance scheme for payment of services.

(b) Integration of the various public sector health components, i.e., the Ministry of Health, the Ministry of Interior (health services in the Beirut municipality), the Ministry of Education, the Ministry of Labor and Social Affairs, the National Social Security Program, and the Ministry of Defense.

RECOMMENDATION 20: Functional or Service Delivery Coordination for Beirut should be established, including:

(a) Functional relationships and referral mechanisms for public and private sectors (for preventive and promotive services, first contact care, out-patient services, short-term in-patient services, emergency services, rehabilitation services, and long-term hospital and non-hospital care).

(b) Coordination of personal and non-personal health services, social health and life-style changes, and changes in environmental health conditions.

RECOMMENDATION 21: Financial Coordination for Beirut should be established. An equitable payment for services scheme is a necessary condition for an effective and efficient coordination of health services in Greater Beirut. Payment for service must consider and balance the interests of the provider of service, the consumer of service and the payor of the service.

RECOMMENDATION 22: Coordination of Teaching and Service Delivery for Beirut should be established, in order to

(a) strengthen and adjust the curricula of medical and allied health schools to the needs of the Beirut and national community, and

(b) strengthen the delivery system through the participation of students, interns and residents in the delivery of health care at all functional levels.

5.7 HEALTH MANPOWER AND TRAINING

In the previous absence of a clearly formulated national health policy, no health manpower plans have been developed. This and fragmentation of the health sector constitute serious constraints in planning comprehensively for the health sector in general and for health manpower and training in particular.

Health manpower (and especially physicians) is poorly distributed, with excessive concentration in urban settings and particularly in Beirut, which has 52.6% of the total number of physicians.

Many agencies compete for the same health personnel and each operates independently to prepare its own human resources. Low public sector salaries have led to an "internal drain" of available manpower into the private sector which dominates the health services delivery system. It is paradoxical that, while the Government spends a great amount of money (over two thirds of the MOH budget alone in 1982) contracting the private sector for curative care of the citizens, its own conditions of service are a major constraint in securing the services of sufficient numbers of staff in the public sector.

There is no pressing need to increase the number of physicians, dentists and pharmacists. While there is no shortage of physicians, there is a marked shortage of paramedical health personnel, especially at the middle level. The greatest need for additional health manpower is at the middle level (nurses, various types of technicians, department level managers). There is a strong need for training intended to help improve the managerial capacity of the health system, including management of the health planning process and the management of service delivery.

There has been a steady increase in the number of Lebanese physicians graduating abroad, and in recent years they constituted 52% of registered physicians. These physicians are not well oriented to the health problems of the country and the health system. The issue of licensing and credentialing foreign medical graduates is of critical importance. While a solution specific to Lebanon must be found, U.S. experience in dealing with foreign medical graduates may provide some guidelines.

The training programmes of physicians and other health personnel studying in Lebanon are predominantly oriented to curative hospital based medical care rather than to comprehensive health care. The Faculty of Health Sciences of the American University of Beirut has tried to organize field training of its students in the community in collaboration with the Ministry of Health and other health agencies, but the war made that impossible.

The establishment and operation of health personnel training institutions is apparently not effectively controlled or coordinated. No convincing data or other evidence exists to justify the need for more than two medical schools in Lebanon, but two officially unrecognized and unaccredited schools have begun to function.

There is difficulty in attracting sufficient numbers of students to study nursing. Apart from the unattractive conditions of service, the location of most nursing schools in Beirut seems to be responsible for this situation, since families in rural areas are reluctant to allow their daughters to come and live in Beirut. In planning any new nursing schools, it is important, therefore, that these should be established in the Mohafazat outside Beirut so that students would be living in or within easy reach of their communities.

RECOMMENDATION 23: Priority training actions must be geared to strengthen in quality and quantity the middle level personnel of the health sector. Each of the six regions (Mohafazat) (and eventually each AHA area) should have training facilities for that level.

RECOMMENDATION 24: A national health manpower survey must be carried out to provide a basis for a national health manpower plan for the training and utilization of all levels of health personnel.

RECOMMENDATION 25: A detailed long range health manpower plan, including the professions of physicians, dentists, and pharmacists, among others, must be developed before any actions are taken to encourage or permit increases in their numbers.

RECOMMENDATION 26: If the Government (in spite of lack of evidence justifying the need for more than two medical schools in Lebanon) decides to expand undergraduate training of physicians, rather than establish a new separate school it should instead consolidate and strengthen, under the National University of Lebanon, the resources of the two existing unrecognized and unaccredited schools and establish a medical curriculum designed to meet Lebanon's specific needs.

RECOMMENDATION 27: Legislation setting standards and requirements for the establishment, recognition, and operation of health personnel training institutions, especially medical schools, should be enacted or enforced.

RECOMMENDATION 28: A National Medical Council should be established. The Council would be responsible for recognition of degrees, licensing examinations, licensing and registration of health professionals, monitoring the quality of care, and application of the medical code of ethics. The Council would also determine the number of students that are required to study medicine or any other health profession, whether within Lebanon or abroad, and set the criteria and procedures for their selection.

RECOMMENDATION 29: Training of health services managers, and position-specific management training of other health services personnel, must be provided. Areas to be covered would include, for example, all levels of planning, facilities management, budgeting, and team management.

RECOMMENDATION 30: Health personnel training (initial, continuing, and postgraduate) should be reoriented to help translate the new national health policy into reality. This will require emphasis, for example, on primary health care, prevention, community and patient relations, and the management areas mentioned above.

RECOMMENDATION 31: Government health worker salaries need to be increased, with at least half of salary increases tied to performance. Incentives can be based on individual or collective performance standards, depending on the type of health worker. The proposed reorganization of the health sector lends itself to innovative compensation experiments.

5.8 EPIDEMIOLOGY SERVICES

Lack of basic health information poses a serious constraint in identifying health problems objectively and in setting priorities for planning and operational purposes.

The Ministry of Health is responsible for preventive programmes which affect the population in general; disease prevention and control, environmental health, social and occupational health. There is need to have a capable central and provincial structure to direct, monitor and evaluate public health activities, especially with regards to disease prevention and control and environmental and occupational health. Early action is necessary to re-establish epidemiological services to provide key information for decision making in health sector reconstruction. A national epidemiological survey of morbidity and ongoing epidemiological services (including surveillance) are needed as bases for health services plans and operations.

In spite of the current lack of adequate epidemiological services in the Government, Lebanon is potentially capable of developing and implementing sound epidemiological work, and of establishing an adequate national epidemiological surveillance and analysis system.

RECOMMENDATION 32: The Directorate of Public Health must be reactivated and supported, under the leadership of an epidemiologist, and local public health programmes must be strengthened (including provision of experienced and responsible leadership at the provincial level and the re-training and in-service training of local health workers).

RECOMMENDATION 33: An epidemiological and health KAP survey of clients and the general population should be carried out as one of the first steps toward determining health care needs and strengthening first contact care (PHC).

5.9 MATERNAL AND CHILD HEALTH

The concepts of maternal and child health have long been known in Lebanon, but they are not well applied at present. A full program of maternal and child health services is needed, with priority to those activities most likely to have health impacts on the population.

RECOMMENDATION 34: Special attention must be paid to high risk groups such as pregnant women, infants, and pre-schoolers.

RECOMMENDATION 35: The full range of immunizations (DTP, Polio, Measles) should be provided on a national (public) basis, including record maintenance both in a "family health booklet" and in clinical record forms.

RECOMMENDATION 36: The reported recrudescence of poliomyelitis must be confirmed or refuted. A vaccination campaign against poliomyelitis should be instituted. If poliomyelitis does constitute a threat but a nationwide campaign is not possible now, vaccination should at least be provided to all susceptibles in the focal areas of the disease.

RECOMMENDATION 37: Growth charts should be reintroduced for the regular monitoring of growth and development, at least among small children.

RECOMMENDATION 38: If a repeat study on a representative sample confirms earlier results of a satisfactory nutritional status among preschool children, MCH programmes should be directed preferably to the mother and child up to 2 years of age, and underfive clinics may not be cost-effective.

RECOMMENDATION 39: An active program to promote correct treatment of diarrhoeal disease (based on oral rehydration) should be established.

RECOMMENDATION 40: Traditional birth attendants should be integrated and retrained. There is evidence, however, that TBA are effective only when they are trained for specific skills such as reducing the incidence/prevalence of neonatal tetanus or when they work in close contact with highly professional systems of maternal and perinatal health care.

5.10 PRIMARY HEALTH CARE

Attention to primary health care is an important early step in reconstruction efforts, not only because of its own intrinsic importance, but also because the present system, created with little or no attention to first contact care, continuity of care, and other primary health care concepts, is collapsing under the financial strain of inappropriate use of hospitals and escalating medical care costs.

RECOMMENDATION 41: Primary health care should form the basis for the health care system and should be given major emphasis by the Government of Lebanon in order to demonstrate its concern for the people's health and to make most effective use of health care resources.

RECOMMENDATION 42: Primary health care (in the sense of first-contact care) in Lebanon must be provided in ways which meet the needs and the reasonable expectations of all the people. This may require that doctors and nurses based in health centres and in some hospitals provide such first contact preventive, promotive and curative care in all communities and with full support from the Government of Lebanon.

RECOMMENDATION 43: A few health center based demonstration projects (in Beirut and elsewhere) should be established soon, to provide comprehensive PHC, with community participation, with continuity of care, and with adequate management, technical, and hospital support. These would provide experience on which to base further decisions and programs.

5.11 HEALTH FACILITIES

The WHO/LRCS assessment mission is not in the position to recommend further hospital development in Lebanon (beyond proposing that the Government consider certain possible avenues of development noted below) until a more comprehensive detailed study can be made region by region, covering the need for acute and long term hospital treatment. Such an investigation would have to take into consideration the plans for primary health care, which will have a direct effect on the number and types of beds and on where they will be needed. This survey, which is urgently needed, must also review the different projects concerning new hospital construction emanating from the initiatives taken by various private and voluntary sources throughout Lebanon, so that any additional beds (and types of beds), to the extent possible will be geographically correctly distributed according to the needs.

Private hospitals play an important role in Lebanon. It is in the "voluntary" private sector hospitals that the country's major hospital care takes place.

There are only 12 functioning government hospitals, all out-dated and under-used They suffer the stigma of being places to go to only if the family cannot possibly pay, either directly or by insurance, for anything better. The loss of confidence in Government hospital services is accentuated by shortages of staff at all levels.

Only 690 public hospital beds are operational (and only 20 in Beirut), out of the existing total of 9 972 hospital beds for acute and chronically ill-patients. Immediately, however, there is a capacity to double the number of functioning MOH beds.

In 1982 the MOH utilized and paid for approximately 1 184 beds per day in the private sector. The government at present pays for some 40 000 hospitalizations per year for acute care patients in the private sector. The Government needs to increase the benefits which it and patients receive from the very large amounts of funds paid to private sector hospitals through the MOH. To do this, it needs to increase the favorable influence which it can exercise over the private sector. A methodology must be established for better cooperation between the private and public hospitals which should give the patients freedom of choice and improve their hospital and health care. A situation must also be created whereby the Government health and hospital services can provide high quality care, to be given with priority to the poorer sectors of the society.

The recommendations regarding construction and reconstruction of public hospitals given here and in Annex E are offered for consideration by the Government with the caveat that they should only be considered if needed improvements in organization and management (Area Health Authorities, strengthening of Ministry of Health, fully functioning National Health Planning Unit, management support systems, etc.) seem very likely to take place, if problems of staffing and recurrent costs can be resolved, and if justified on the basis of results of a thorough survey/study of health facilities.

The currently contemplated massive expansion of the public hospital sector, while having considerable appeal on the surface, appears to present considerable strain on GOL fiscal, administrative, and management capacities. This is not to say that a case cannot be made for constructing some additional public hospital beds. However, the economic rationale suggested for a large expansion of public hospital bed capacity is neither compelling nor justified. Thus the GOL ought to give serious consideration to various alternative health sector development policies which would be less demanding of public sector resources.

RECOMMENDATION 44: Prior to determining what changes will be made in existing public hospital facilities, the Government should conduct a national survey of all hospital facilities.

RECOMMENDATION 45: The Government should develop a National Master Plan for Public and Private Hospital Facilities. The plan should be based on assessments of current and projected needs for hospital beds, on financial plans and projections, and on Government policy decisions regarding such matters as how to meet primary health care and outpatient service needs and what proportion and types of hospital beds and services should be provided through government facilities. The plan should include numbers and types of hospital beds and services, by geographic area and by Government or other ownership.

RECOMMENDATION 46: If the Government's capacity to manage and utilize its own hospitals can be sufficiently strengthened, and if detailed analyses indicated that increasing public sector beds would be financially feasible and beneficial (as does not seem to be the case, in comparison with the alternative of increased control and improved selective use of the private sector), then the Government might consider increasing the number of beds in the public sector. This could enable the Government to provide hospital care for the indigent population which is the responsibility of the MOH. Given those considerations, it is recommended that the following be considered, pending actions to strengthen management and utilization of public sector beds and pending a survey to develop a national master plan for hospitals:

- Upgrading, equipping and staffing 580 existing but non-operational public hospital beds so they can be utilized.
- Installing a 200 bed temporary public hospital in Beirut) convertible to other uses later).
- Constructing a new public hospital in Beirut with 300 beds, also to be used as a supporting centre for training of nurses, paramedical, and public health staff, with emphasis on community health and primary health care.

If this were done, in addition to the newly started renovation of the 200 bed Quarantina hospital in Beirut and the plans to install a 130 bed temporary hospital in Saida, the total national bed/population ratio would increase to approximately 3.7 beds per 1 000 inhabitants.

RECOMMENDATION 47: The Government should use reimbursement for services provided as a means of expanding MOH control over private hospital beds. As one interim measure to permit the Government to increase its control of the use and quality of the private sector hospital services for which it pays, arrangements might be made with one or more private hospitals (probably in Beirut) under which the Ministry of Health would guarantee to utilize a certain proportion of a hospital's beds (e.g., 90%), at standard MOH reimbursement rates for beds and services, in return for increased MOH control of admissions and facilitation of MOH monitoring of services and charges.

5.12 DRUGS AND THE PHARMACEUTICAL SYSTEM

The drug and pharmaceutical system is out of control of the Government. Illegal pharmacies are operating. Counterfeit drugs and other drugs not approved by the MOH are present on the market. Drug costs are rising rapidly. Forceful actions are necessary in order for the Government to gain needed control over the drug sector, decrease the hazards which that sector now presents to the health of the people, increase the health benefits of money spent on drugs, and control rapidly rising drug costs.

Some of the Government actions in the drug and pharmaceutical sector should be carried out in the very near future and be in full effect at the end of 1983:

RECOMMENDATION 48: Amend and strengthen current drug legislation, including regulation and licensing of pharmacies, and increase Government's willingness to take action and impose sanctions on offenders. Illegal pharmacies should be closed if they cannot fully conform to national laws and become legally authorized to operate.

RECOMMENDATION 49: Control safety and efficacy of essential drugs, by sending samples to recognized international drug testing laboratories outside of Lebanon and enforcing laws on the basis of results of analyses. Counterfeit and ineffective or otherwise dangerous drugs must be controlled, by applying and strengthening existing laws.

RECOMMENDATION 50: Formulate and release a national policy statement on drugs (based on recommendations of a high level task force with WHO representatives or on a commissioned expert study).

RECOMMENDATION 51: Strengthen Inspectorate of Pharmacy Department of MOH and take legal actions against drug legislation offenders.

RECOMMENDATION 52: Decrease the number of drugs of the market, initially by forcing removal of unapproved drugs.

Other Government actions in the drug and pharmaceutical sector cover a longer range of time. Although preparations for those actions should begin in 1983, their full implementation will be during 1984 and 1985:

RECOMMENDATION 53: Establish National Drug Quality Assurance Laboratories in Beirut.

RECOMMENDATION 54: Inventory and register all drugs on market in Lebanon.

RECOMMENDATION 55: Further decrease the number of drugs of the market, by reviewing all drugs (including those previously approved and those newly submitted for approval) and allowing marketing only of those which are safe, effective, and needed (based on WHO list of essential drugs).

RECOMMENDATION 56: Establish a National Office of Drugs with sufficient authority, resources, and Government support to carry out its mandate.

RECOMMENDATION 57: Carry out studies on drug utilization (prescribing practices, self-medication, etc.).

RECOMMENDATION 58: Disseminate information about drug use to providers of health services, to patients, and to the general public.

5.13 EMERGENCY MEDICAL SERVICES

The metropolitan area of Beirut lacks a quality medical emergency care services network. The reconstruction and expansion of the Quarantina hospital provides the opportunity to add a well equipped trauma centre to serve the metropolitan population.

RECOMMENDATION 58: An effective medical emergency care services network should be implemented for Greater Beirut. A radio-telephone communication system must link the ambulances, the trauma centre, the two university hospital emergency departments, and eventual first aid stations, to permit effective dispatch of vehicles and assignment of patients destination for treatment in health facilities.

5.14 BLOOD TRANSFUSION SERVICES

There is a shortage of blood for transfusion in Lebanon, and transfusion services are fragmented and in some cases need improved quality control. Existing human technical and organizational resources could form the basis for a National Blood Transfusion Service.

RECOMMENDATION 60: A National Blood Transfusion Service should be established, incorporating the resources of the existing transfusion services, with the Lebanese Red Cross responsible for all operations. The medical director must be a haematologist specialized in blood banking and transfusion.

RECOMMENDATION 61: As a first step toward establishing a National Blood Transfusion Service, a national organizing committee should be appointed by the Minister of Health, to (a) establish the administrative and organizational structure, (b) appoint the Medical Director of the National Blood Transfusion Centre, and (c) provide a budget financed through the MOH.

5.15 LABORATORIES

Adequate health laboratory services need to be developed, especially to support primary health care and preventive services throughout Lebanon.

RECOMMENDATION 62: Regional laboratories should be developed, to ensure that basic laboratory facilities are available for support of primary health care services.

RECOMMENDATION 63: An Advisory Committee for the Central Public Health Laboratories should be formed, to enable better coordination between the various sections of the laboratories.

6. ACTION PLAN

To gain the full benefit of the recommendations contained in this report, the Ministry of Health should direct the implementation of an action plan based on five parallel phases of work, as already illustrated in the Summary on page 15.

I. Enacting legislation. - The purpose of the first phase is to enact the legislation required to implement the National Health Policy as proposed by the Ministry of Health. This legislation will include new measures as well as modification of existing regulations.

II. Formulating supporting policies. - In the second phase, the Government will formulate and start implementing national policies in order to restructure the health sector as decided by legislation. These policies will include guidelines concerning social, economic, financial, technical and administrative aspects of the National Health Policy.

III. Building resources and systems. - The purpose of the third phase is to make the re-structured health sector operative, consistent with health and other national policies. To this end, the Ministry of Health will start mobilizing the human, financial and technical resources required to deliver the health services as well as re-building the necessary management and administrative systems.

IV. Implementing health programmes. - In the fourth phase, the competent units of the national health delivery system will develop and implement programmes to meet specific needs of the population in Lebanon. Some of these programmes may initially be implemented on a pilot basis to gain experience for wider application at a later stage.

V. Monitoring progress. - In the last phase, the Government and the Ministry of Health will monitor progress in implementing Phases I, II, III and IV and will, at major progress review points, evaluate the need for any corrective action. Such action should aim either at re-enforcing existing efforts towards agreed objectives or at establishing more realistic objectives and resource levels.

These five phases of work provide a framework for action, by (a) setting the scene for the recommendations made by the Assessment and Planning Mission with emphasis on 1983-86, and (b) helping the Government to identify the need for action in addition to these recommendations.

Detailed action steps, together with responsibility and timing for each phase, are outlined in Sections 6.1 - 6.5. The deadline of 6 May 1983 for the anticipated expiration of the Lebanese Government's emergency powers is particularly relevant for several actions in Phase I, Enacting Legislation.

The major steps of this proposed plan are consistent with the recommendations made by the Assessment and Planning Mission. The sequence and timing of the steps, however, are tentative and should be updated as warranted by changing circumstances or national priorities. Several action steps may need to be expanded in more detail to facilitate implementation at lower organizational levels and to establish major progress review points. Action concerning areas outside the scope of the mission's recommendations should also be included.

The overall responsibility for directing the implementation of the action plan obviously rests with the Government acting mainly through the Ministry of Health. The Ministry's National Health Planning Unit, however, should play a key role in facilitating the planning, coordination and monitoring of the five phases of work. Coordination is essential because activities concerning, for example, hospital facilities will take place in several of the parallel phases and are also related to work in other areas such as manpower training and primary health care programmes.

If requested, WHO will be prepared to assist the Ministry of Health in implementing the five phases of the action plan. Appropriate areas of possible assistance include participation in progress reviews and training programmes, advice on technical issues and on the important role of the National Health Planning Unit, and refinement of the action planning and review process.

6.1 PHASE I - ENACTING LEGISLATION

MAJOR ACTION STEPS	REC.*	RESPONSIBILITY	TIMING	COMMENTS BY GOVERNMENT
1. Re-affirm publicly aim and principles of National Health Policy proposed by MOH December 1982 statement.	01, 02	Government	April 1983	
2. Enact legislation to establish Ministry of Health and Social Affairs by merging Ministry of Health with the health sections of Ministry of Labor and Social Affairs and the health services sections of Ministry of the Interior.	06	Government	By 6 May 1983	
3. Mandate the establishment of autonomous local Area Health and Social Affairs Authorities (AHAs).	07, 08	Government	By 6 May 1983	
4. Integrate the National Health Planning Unit into the formal structure of the Ministry of Health - role, staffing, budget.	05	Ministry of Health	By end May 1983	
5. Strengthen existing drug legislation, including regulation and licencing of pharmacies and control of counterfiet or dangerous drugs.	48	Ministry of Health	By end 1983	
6. Enact or enforce legislation setting standards for the establishment, recognition and operation of health personnel training institutions, especially medical schools.	27	Ministry of Health and Ministry of Education	By end 1983	
7. Identify the need for enacting or enforcing any other legislation relevant to the National Health Policy, especially in those areas not covered by the Assessment and Planning Mission's recommendations.		National Health Planning Unit of Ministry of Health	By end 1983	

* - Reference to recommendations in Section 5 of this report

6.2 PHASE II - FORMULATING SUPPORTING POLICIES

MAJOR ACTION STEPS	REC.	RESPONSIBILITY	TIMING	COMMENTS BY GOVERNMENT
1. Make policy decisions concerning the legal and administrative structure for a "National Health Security System" - eg., limits of funds available for re-imbursement; quality standards.	10, 11, 12	Ministry of Health	Mid-1983	
2. Conduct a national survey of all hospital facilities to prepare policy guidelines for a national master plan concerning public and private hospital facilities.	44, 45	Ministry of Health	By end 1983	
3. Undertake national surveys of epidemiology, health knowledge, attitudes, practices, health manpower, and hospitals as input to national policies and health plans.	03, 04	National Health Planning Unit of Ministry of Health	Start mid-1983	
4. Formulate and start implementing any other national policies concerning social, economic, financial, technical and administrative aspects of the National Health Policy.		Government or Ministry of Health	By end 1983	

.3 PHASE III - BUILDING RESOURCES AND SYSTEMS

MAJOR ACTION STEPS	REC.	RESPONSIBILITY	TIMING	COMMENTS BY GOVERNMENT
. Develop and apply effective mechanisms to ensure adequate performance by hospitals, physicians and others employed or contracted to provide or manage health services.	15	Ministry of Health	1983-1984	
2. Appoint a team of experts to develop mechanisms for the proposed National Health Security System - e.g., cost re-imbursements, fee schedule.	11	Ministry of Health	By June 1983	
. Develop and implement a national health manpower plan based on the recommendations concerning: - National health manpower survey - Long-range health manpower plan - Legislation enacted or enforced - Training facilities and programmes - Number of medical schools - Foreign medical graduates - National Medical Council - Salary policies	23-31	Ministry of Health	Start June 1983	
. Implement effective management systems in specific areas such as personnel management, logistics, maintenance, finance systems, planning, etc.: - Management process for national health development - Management-by-exception approaches allowing senior managers to identify and resolve major issues - Standardized procedures for dealing with routine problems.	13, 14, 15, 16	Ministry of Health	1983-1986	
. Identify the need for mobilizing additional human, financial and technical resources as well as any other management and administrative systems.		National Health Planning Unit of Ministry of Health	Ongoing	

6.4 PHASE IV - IMPLEMENTING HEALTH PROGRAMMES

MAJOR ACTION STEPS	REC.	RESPONSIBILITY	TIMING	COMMENTS BY GOVERNMENT
1. Develop a master plan for health services delivery in the metropolitan area of Greater Beirut.	01, 17-22	National Health Planning Unit of the Ministry of Health	Start June 1983 Complete mid-1984	
2. Give major emphasis to primary health care as basis for the health care system - as reflected by recommendations concerning: - PHC programme (high-risk groups, demonstration projects, etc.) - AHAs - Regional laboratories.	09, 33, 41-43 62	Ministry of Health	Start mid-1983	
3. Formulate and implement a maternal and child health programme.	34-40		1983-1986	
4. Re-activate Directorate of Public Health to implement preventive programmes and epidemiology services.	32, 33		1983-1984	
5. Develop a national master plan for public and private hospital facilities based on national survey and policy guidelines. In the context of this plan: - Resolve key issues - e.g., number of beds required - Use re-imbursement for services provided as a means for expanding MoH control over private hospital beds.	45, 46, 47	Ministry of Health	1984	
6. Implement programme to reduce immediate problems of pharmaceutical sector - as defined by recommendations concerning: - Drug legislation - National policy based on task force study - Illegal pharmacies - Counterfeit, ineffective or dangerous drugs - Inspectorate of Pharmacy Department - Number of drugs on the market.	48-52	Ministry of Health	By end 1983	

(Continued)

(Section 6.4 continued)

MAJOR ACTION STEPS	REC.	RESPONSIBILITY	TIMING	COMMENTS BY GOVERNMENT
7. Formulate and implement programme to maximize contribution of pharmaceutical sector to National Health Policy - as reflected by recommendations concerning: - National Office of Drugs - Inventory and registration of all drugs - Further reduction of number of drugs - Studies of drug utilization. - National Drug Quality Assurance Laboratories in Beirut	53-58	Ministry of Health	1983-1986	
8. Implement a quality emergency medical care services network for Greater Beirut.	58	Ministry of Health	1984-1985	
9. Appoint a national organizing committee with the task of establishing a National Blood Transfusion Service.	60, 61	Ministry of Health	1983	
10. Establish an Advisory Committee for the Central Public Health Laboratories.	63	Ministry of Health	1983	
11. Identify the need for additional health programmes, specially in those areas not covered by the Assessment and Planning Mission's recommendations.		Ministry of Health	1983-1985	

6.5 PHASE V - MONITORING PROGRESS

MAJOR ACTION STEPS	REC.	RESPONSIBILITY	TIMING	COMMENTS BY GOVERNMENT
1. Update and complete details of Phases I, II, III and IV of the proposed action plan, at least for 1983-1984. - Recommendations made by the Assessment and Planning Mission. - Action concerning areas outside the scope of the mission's recommendations.		National Health Planning Unit of the Ministry of Health	By mid 1983	
2. Establish progress review schedule for each of Phases I, II, III and IV and for key areas of coordination (e.g., hospitals). - Major milestones or indicators of progress - Information required - Frequency and dates - Participants - Format of review reports.		National Health Planning Unit of the Ministry of Health	By mid 1983 and say, annually	
3. Conduct progress reviews according to schedules. - Examine two questions: is progress made as planned; is plan (objectives or resources) still valid? - Assign responsibility for any corrective action - Update action plan.		Ministry of Health	Ongoing	
4. Seek external assistance and advice, as appropriate, for any of the five phases of work. - From WHO - e.g., participation in progress reviews and training programmes, advice on technical issues and on the role of the National Health Planning Unit, and refinement of the action planning and review process. - From other UN and bilateral agencies - e.g., LRCS, UNDP, UNICEF, USAID, etc.		Ministry of Health	When needed	

ANNEXES A - C

Annex A to the Report of the February - April 1983

WHO/LRCS Health Assessment and Planning Mission to Lebanon

ABBREVIATIONS AND ACRONYMS USED IN THE REPORT

AHA	Area Health and Social Affairs Authorities
AID	United States Agency for International Development
ALICO	American Life Insurance Company (Beirut)
AUB	American University of Beirut
AUH	American University of Beirut Hospital
CDR	Council for Development and Reconstruction, Government of Lebanon
ERO	(WHO) Emergency Relief Operations
EMRO	WHO Regional Office for the Eastern Mediterranean
ILO	International Labor Organization
LL	Lebanese Pounds
LRC	Lebanese Red Cross
LRCS	League of Red Cross Societies
MCH	Maternal and Child Health
MEA	Middle East Airlines
Mission	WHO/LRCS Health Assessment and Planning Mission
MOD	Ministry of Defence
MOF	Ministry of Finance
MOH	Ministry of Health of the Government of Lebanon
MOHSA	Ministry of Health and Social Affairs
MOLSA	Ministry of Labor and Social Affairs
NHSS	National Health Security System (proposed)
NSSF	National Social Security Fund
OSD	Office of Social Development
PGS/MGT	Personnel and General Services / Administrative Management (WHO Headquarters)
PHC	Primary Health Care
TBA	Traditional Birth Attendant
UGCS	Cooperative of Government Civil Servants
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Annex B to the Report of the February - April 1983

WHO/LRCS Health Assessment and Planning Mission to Lebanon

MEMBERS OF THE WHO/LRCS MISSION TO LEBANON, COUNTERPARTS AND ROLES*

*Source: Ministry of Health, Lebanon, February 1983

WHO ASSESSMENT TEAM *

CONSULTANTS, COUNTERPARTS AND TASKFORCES

Consultants	Counterparts	Contacts and Task forces
1. Dr. Leonce Bloch Mission Leader Dr. William Gunn Coordinator	HE Dr. A. Mroueh Minister of Health Dr. Robert Saadeh Director General, MOH	Advisory Board to Minister
2. Dr. Arnt Meyer-Lie Health Planner Dr. Eugene Boostrom Systems Analyst	Dr. Antoine Farjallah Head of Hospitals and Health Centers	Task force on Hospital Systems
3. Mr. Willy De Geyndt Health Financing Dr. James Jeffers AID Consultant Dr. Paul Zukin AID Consultant	Dr. Fawzi Ma'touli Director of Medical Care Dr. Raif Nassif Advisor to Minister	Task force on Health Planning
4. Dr. Ali Khogali Health Manpower Develop.	Ms. Rakieh Bizri overseas Fellowships Mr. Badr Chartouni Head of Manpower Section	Task force on Health Manpower Universities and Colleges
5. Dr. Mohamad Wahdan Epidemiologist	Dr. Mohamad Mhanna Director of Preventive Medicine	Task force on Primary Care Epidemiologic Surveilla Bureau
6. Dr. E. Kalimo Primary Care Ms. Shephanie Simmonds Community Health Dr. U. Brlag Mat. & Child Health	Dr. Jamal Harfouche Advisor to Minister Mr. Mahmoud Hallab Head of Environment Mr. Ahmad al Khalil Health Education	Task force on Social Health Task force on Primary Care
7. Mr. D. Whiteley Hosp. and Health Facility	Mr. Abdallah Baltagi Head, Project Manage Management	UNICEF reconstruction EEC
8. Dr. Roy Choudhary Pharmaceuticals	Mr. Husni Chbaro Mrs. Fawzieh Nsouli Miss Therese Abu Maroun	Task force on Pharmaceuticals
9. Dr. J. Leikola Dr. H. Örjasaeter Emergency and Blood Transf.	Mr. George Ma'louf (Min. of Health)	Red Cross

*Source: Ministry of Health, Lebanon, February 1983. Some name spelling corrected.

WHO HEALTH ASSESSMENT TEAM *

LEBANON

February 6 - March 4

I. Compesition

1. Dr. Leonce Bloche	Mission Leader -(USA) Experience as Resident Representative UNDP
2. Dr. William Gunn	Coordinator (Canada) Emergency Relief Operations - WHO - Geneva
3. Dr. Arnt Meyer-Lie	Health Planner (Sweden)
4. Dr. Eugene Boostrom	Health Systems Analyst (USA) US AID Officer
5. Mr. Willy De Geyndt	Health Financing (Belgium) World Bank Officer
6. Dr. Ali Khogali	Health Manpower Development (Sudan) Acting Director of Health Manpower Development WHO/EMRO
7. Dr. Mohamad Wahdan	Epidemiology (Egypt) Acting Director - Disease Prevention and Control - WHO/EMRO
8. Dr. E. Kalimo	Primary Health Care and Community Health (Finland) Primary Health Care - WHO/Geneva
9. Ms. Stephanie Simmonds	Primary Health Care (Britain) Research Fellow - Coordinator Refugee Health Unit - London School of Hygiene and Tropical Medicine
10. Mr. D. Whiteley	Hospital and Health Facility Planning (Britain) Cusdin, Burden and Howitt Architects (London)
11. Dr. Roy Choudhary	Pharmaceuticals and Health Supplies Management WHO/EMRO Regional Advisor on Pharmaceuticals
12. Dr. J. Leikola	Emergency and Blood Transfusion services Finland
13. Dr. H. Ørjasaeter	Emergency and Blood Transfusion Services Norway
14. Dr. U. Bolag	Maternal and Child Health (Switzerland)

*Source: Ministry of Health, Lebanon, February 1983. Some name spelling corrected.

Annex C to the Report of the February - April 1983

WHO/LRCS Assessment and Planning Mission to Lebanon

ACTIVITIES AND DEVELOPMENT OF THE MISSION'S REPORT

The joint WHO/LRCS mission worked in Lebanon from the 6th of February until the 26th of February, 1983, with some members present for only part of that period. The Mission considered national health policy as expressed in a paper presented by the Minister of Health, H.E. Dr Adnan Mroueh, in December 1982. The mission considered that policy and the changes proposed in that same paper as it studied Lebanon's health sector and prepared the recommendations contained in the present report. Mission members obtained much information by reviewing documents and data made available by WHO, the Ministry of Health and the American University of Beirut. Members also conducted numerous interviews with Government officials, private and public health care providers and health services managers, and made observation visits to various health services agencies and to health services facilities in Beirut and in northern and southern areas of Lebanon. On those bases, members of the team developed a series of consultants' reports covering specific sub-areas of the health sector, including, in each case, an assessment of the situation in that sub-area and recommendations suggested for inclusion in this overall report of the WHO/LRCS mission. The mission then considered those consultants' reports and that of the financial analysis team and used them in developing a framework for Lebanese health sector planning and proposals for a series of actions to be taken in the period 1983 to 1986 to rebuild and re-establish the Lebanese health services and to improve their coverage and quality.

A delegation of mission members (Bloch, Bollag, Boostrom, DeGeyndt, Meyer-Lie, and Simpson) traveled to EMRO headquarters in Alexandria, Egypt, after a final meeting with the Minister of Health on the 26th of February. The delegation worked there until the 2nd of March, revising consultants' reports in collaboration with EMRO staff (including mission members Khogali and Wahdan) and discussing with them items for inclusion in the mission's report and recommendations. Because of the Ministry of Health's expressed need for early information on which to base immediate actions, a preliminary summary report was prepared by mission members in Alexandria and delivered to EMRO Director Dr Gezairy in Geneva on March 3, 1983 for transmission to H.E. Dr Mroueh and for Dr Gezairy's discussion of its contents with H.E. Dr Mroueh at a Ministers' conference in Abu Dhabi in early March.

After initial discussions of that draft summary at WHO headquarters, Dr Eugene Boostrom, a member of the mission, accepted the task of drafting a concise list of early action recommendations and the present report. He developed the draft of the urgent recommendations for early action with Dr Willy DeGeyndt of the World Bank in Washington and cabled it to WHO headquarters; that list was transmitted to H.E. Dr Mroueh by WHO cable from Geneva on March 25, 1983 (and retransmitted on April 5, 1983; See Annex P). Dr Boostrom drafted the present report in coordination with Dr James Jeffers of the University of Iowa, who was simultaneously writing the report of the USAID-financed health finance study team. Dr Boostrom returned to Geneva to revise the final draft with WHO headquarters personnel, including Dr S.W.A. Gunn (Chief Medical Officer, Emergency Relief Operations) and Dr G. Rifka (Director, Eastern Mediterranean Special Programme), and to develop a plan for action and follow-up in collaboration with Mr J.A. Jorgensen and Mr H.K. Larsen of WHO headquarters (PGS/MGT). The report was then delivered to H.E. Dr Mroueh in Beirut by Dr Rifka.