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COUNCIL OF DEVELOPMENT AND RECONSTRUCTION

HEALTH SITUATION IN LEBANON

by

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I - INTRODUCTION

While health is a primary need for man and his society for the achievement of a total and integrated life, it is actually regarded as of secondary importance by the Lebanese Government.

Some Lebanese have no access whatsoever to health care and many of those who have, are receiving inappropriate care which does not answer their needs.

Since the rapid development of Lebanon cannot be separated from the health of the individual Lebanese, new ways of thinking about the problems of health and health services ought to be developed in order to improve the well-being of the people, in other words increase their social fitness and productivity.

Adequate health care provision is associated with adequate resources: man, money, materials and adequate planning to reach a supply-demand balance on the falcrum of productivity.

Therefore to start with, any developmental Health plan needs enlightened decision-makers, responsible for Health manpower and budget planning on one hand, and responsive and motivated population on the other hand.

The complexity of the situation as it exists in Lebanon makes it necessary to consider organization for community health in at least two dimensions: The various levels of "Government as one dimension referred to as the public sector and the second dimension or private sector including the various auspices, official and non official.

II - General Situation

The World Health Organization, estimated roughly the Lebanese population in 1975 to be around 3.25 millions, nearly 65% of these are mothers and children meaning a high dependency ratio. In 1973 the registered crude birth rate was 24.5 per thousand, the crude death rate 4.3 per thousand indicating a remarkable underregistration.

To be able to assess the health situation in Lebanon, we have to study the following:

A) The Ministry of Health which is the official body for care provision and policy making.

b) The General health service structure revealing two important problems: the inequity of the Private and the public Sector and the geographical maldistribution of health manpower and facilities.

C) The levels of preventable diseases because Health cannot be defined in exact measurable terms, therefore morbidity data are useful as health indicators.

D) The Medical and paramedical education and training in order to analyze the manpower supply of the country.

A) Ministry of Health

1* Objectives

The objectives of the Ministry of Health listed in the decree No. 8377 Article No. 2 officially declared in 1961 and amended in 1963, are:

"to protect and improve the Public Health by preventing diseases and treating needy patients and by supervising the Private Health facilities according to the law specified for the above mentioned. Also to prepare suggestions for Legislation and modification of the Laws and Policies related to all the Public Health fields."

Is the Ministry of Health fulfilling its objectives?

The answer to this question is self evident after evaluating the Health situation of the country.

2* Organization, staff, budget

Theoretically the Ministry of Health consists of the following:

a - Organization

* At the National Level

1. Directorate General

2. Three directorates

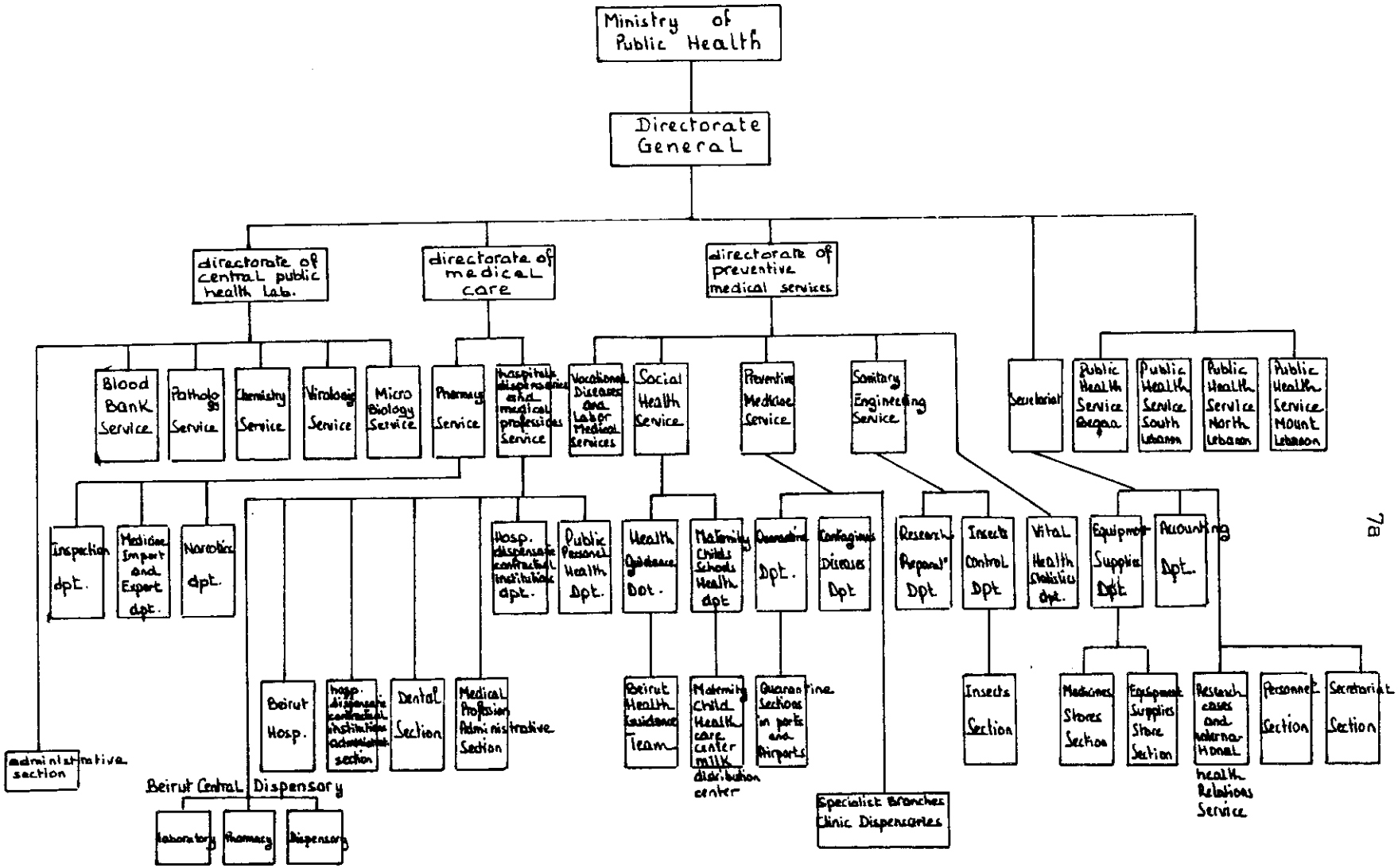
a - directorate of Preventive Medical services
b - Directorate of Medical Care
c - Directorate of the Central Public Health Laboratory

* At the regional level

1. A regional health service for every Mohafazat except for Beirut because health Legislation and execution are the responsibilities of the Municipality without any control by the Ministry.

2. A Health Section directed by a doctor of the Caza and directly related to the regional health service of the Mohafazat.

A more detailed explanation is shown in the chart:


Ministry of Public Health
Directorate General
directorate of central public health lab.
directorate of medical care
directorate of preventive medical services
Secretariat
Public Health Service Beqaa
Public Health Service South Lebanon
Public Health Service North Lebanon
Public Health Service Mount Lebanon
Blood Bank Service
Pathology Service
Chemistry Service
Virology Service
Micro Biology Service
Pharmacy Service
Hospitals dispensaries and medical professions Service
Vocational Diseases and Labor Medical Services
Social Health Service
Preventive Medicine Service
Sanitary Engineering Service
Inspection dpt.
Medicine Import and Export dpt.
Narcotics dpt.
Hosp. dispensaries contractual institutions dpt.
Public Personnel Health Dpt.
Health Guidance Dpt.
Maternity Childs Schools Health dpt
Quarantine Dpt.
Contagious Diseases Dpt
Research Personnel Dpt
Insects Control Dpt
Vital Health Statistics dpt.
Equipment Supplies Dpt.
Accounting Dpt.
administrative section
Beirut Central Dispensary
Beirut Hosp.
hosp. dispensaries contractual institution administration section
Dental Section
Medical Profession Administrative Section
Beirut Health Guidance Team
Maternity Child Health care center milk distribution center
Quarantine Sections in ports and Airports
Specialist Branches Clinic Dispensaries
Insects Section
Medicines Stores Section
Equipment Supplies Store Section
Research cases and International Health Relations Service
Personnel Section
Secretariat Section
laboratory
Pharmacy
Dispensary

b - Staff

Many of the subdivisions and departments shown in the chart, lack the adequate Personnel in number and credentials for example the vital and Health statistics department has at present two employees who are not qualified, despite our knowledge that this department is very important for the establishment of any health planning and Policy.

The strong centralization of the Ministry as it is the case in many other developing countries reveals a st te of poor economy and low standard of living.

Since the Ministry of Health is in theory responsible for the provision of treatment as well as protection of the Lebanese population it should have been the center of expertise at all levels but instead of this we find it poorly staffed with many vacant positions although budgeted for and a low salary scale which results in lack of motivation and job dissatisfaction among the already existing personnel.

The staffing of the Ministry is a real major problem which hinders its functions at all levels and reflects poor organization.

c - Budget

The budget of the Ministry reflects health as being not only of secondary importance but the least important among

the other sectors like the economy, Education, Postes, telephone and Telegraphs (PTT) etc.

A time trend of the budget of Health is significant here because it shows the status quo condition of the ministry instead of its development. It's percentage budget out of the total budget did not change since the 60's despite the development of an increasing number of techniques based upon new scientific knowledge for the development of organized Public Health programs.

These give rise to new responsibilities at the decision-makers level who seem to be relaxed because the budget of the Ministry of Health has increased in terms of crude amount of money but percentage wise it is still the same:

The Budget of the Ministry of Health and its percentage out of the total budget

Year	Total Budget (Million LL.)	Health Budget (Million LL.)	Percentage
1962	375,000	13,673	3.7
1963	425,400	13,833	3.3
1964	476,400	15,189	3.2
1965	514,790	16,463	3.2
1966	590,735	24,175	4.1
1967	632,881	24,055	3.8
1968	648,500	23,502	3.6
1969	660,600	22,013	3.3
1970	736,625	22,611	3.1
1977	1,851,374	67,802	3.7
1978	2,398,456	55,908	2.3

In 1978 the percentage out of the total budget has decreased to 2.3%.

Here important questions can be raised:

- Is Health becoming more neglected in Lebanon?
- Is our health situation bright enough that it does not deserve more attention?
- Is it because of the war that the other problems in the country have the priorities?
- Is all the damage which occured in Lebanon restricted to the other sectors? (No injured people, no epidemics, no handicapped?)
- Is the Lebanese Government relying more and more on the Private Sector?

And last but not least:

- Are our decision-makers aware of the Health development in the world?

In other words, the Ministry of Health in Lebanon is spending nearly LL.17.00 or nearly $5 per inhabitant and used to spend in the 60's nearly $2 per inhabitant compared to the United States of America which spent in the 60's nearly $50 and nowadays over $200 per inhabitant and per year.

The problem becomes more acute when even this low budget is badly spent for example in 1978 the LL.55,908 million are being spent as follows:

Type of Expenditure	Amount in LL.	Percentage
I. Salaries	21,465,400	38%
II. Indemnities, aids & grants	181,000	0.3%
III. Administrative needs	1,133,000	2%
IV. General Administrative needs	655,000	1.2%
V. Maintenance	275,000	0.5%
VI. Publicity & exterior communica tions	177,100	0.3%
VII. Aids (Private & Governmental hospitals)	30,020,000	54%
VIII. Undefined expenditures	643,000	1.2%
IX. Central Public Health Lab.	1,359,300	2.5%
TOTAL	55,908,800	100%

Out of the LL.3 millions allocated for the social and educational aids, LL.27.5 millions are allocated for the treatment in the private hospitals.

As a rough analysis we can say that - 42% of the total budget goes for salaries and administrative purposes, - 54% on the curative aspect, and hardly 4% on the preventive aspect of health care.

But if we consider that the employment or salaries, indemnities and maintenance are of curative basis, we can say that more than 90% is spent on the curative aspect of health care.

Comparing the cost of sickness to the Price of Health, one can say that effectively the Lebanese Government has under-estimated the role of Preventive Medicine and Health care especially when the developed world is emphasising Prevention, and we Lebanese are still having the big burden of the sick.

3% - Planning, implementation and supervision

There is no official committee for planning in the ministry of health, most of the planning is done on a personal and haphazard basis. The supreme council of Health, the only advisory body of the Ministry is not functioning since more than four years.

Despite the lack of planning which brings about a drastic situation in a developing country like Lebanon because of the scarce resources, the implementation of the very few planned programs gives us a more chaotic figure: Many of the plans can stay in the drawer like the plan for Tripoli Hospital in 1972, and many can be implemented at a later date which becomes badly influenced by the rate of inflation; the beds planned to cost LL.30 thousand will cost LL.100 thousand later and this is a main cause in disrupting the plans.

Any way, Health programming and planning is an essential need which stresses the national responsibility of the Government

through a continuous process of health development, intimately linked with the socio economic development of the country.

At least, if the ministry of health is not able to provide all the health care in Lebanon, we expect it to develop qualities for supervision of the other health providers being official or non official but even this disappoints us to the point of dissociation and lack of coordination with the other agencies:

- The municipality of Beirut is completely independent from the Ministry of Health.
- The National Social Security Fund NSSF is completely dissociated from the Ministry.
- No direct supervision of the private sector.

As a summary the function of the Ministry is: a) running the Governmental facilities (hospitals, clinics and dispensaries) and b) helping the private facilities serving the people usually on a contract basis.

B) General Health Service Structure

1# - Health Facilities

Free medical care is provided by the government to the indigent sector of the population but the quality of this medicare has most of the times been questionable.

In addition, medical care is being widely provided by the Private health Sector.

Even when the best medicare and the highly qualified is provided by Private institutions, one should be careful not to generalize the effectiveness of the whole Private Sector in terms of quality because some of them can be profit-making institutions which do more harm than good to the people especially because of the absence of any governmental supervision.

Attempts at evaluation of the different hospitals, health centers and dispensaries should be started very soon to be able to assess our resources and make use of the best we have. Evaluation should be based on such factors as costs, resources, and the quantity and quality of services.

The Lebanese Government emphasizes the role of the hospital, as if health means hospitals and hospital beds. This is typical of the curative medicine orientation because curative medicine rests on good hospital facilities as its basis whereas preventive medicine depends largely on outpatient services for the ambulant patients and on centers for health promotion through education of the people.

The basic elements of our health services are:

* The dispensaries: described by John Bryant as being the smallest unit of health care in most developing countries, it is usually a one room building, poorly maintained

and equipped. According to Bryant the typical picture of a dispensary is: a man with marginal training, limited equipment, few supplies, little or no supervision:

> "It does not cost much, and does not provide much."

Since the impact of the dispensaries on Health is slight an attempt to transform them into health centers should be started.

* The Health Centers:

It is usually the most Periferal unit of the health service. It's action usually varies with the resources of the country. In general a district of 100.000 people can be served by a district hospital and four health centers.

Paramedicals are very important in staffing the health center with an immediate supervision of medical personnel serving the district Hospital.

Therefore the health center is a very effective unit at the peripheral level especially if referrals can be operated to treat the more sophisticated cases and to ensure continuity of health care.

The Health centers approach would be the best and least costly for meeting the immediate health needs of Lebanon and ensure decentralization of health facilities.

* The Hospitals:

Hospitals can be divided as follows:

- The district hospital; it should support directly the efforts of the health center, and rely on auxiliaries as well as professionals.
- The Regional hospital is more developed than a district hospital especially in terms of specialty care. It's size might vary from 250 to 500 beds.
- The central hospital: this should be central to all other health facilities and can provide the most advanced medical care in the country. Usually there should be one such unit, at the level of the Ministry of Health and should be staffed by highly qualified professionals.

In Lebanon differentiations among the hospitals rarely exist, this is mainly due to the lack of planning.

The following table shows the distribution of governmental hospitals and beds according to Mohafazats:

Distribution of Governmental Hospitals
and beds in Lebanon according to Mohafazats (1978)

Mohafazats	Estimated Population	Number of Governmental Hospitals 1978	Number of Governmental Hospitals 1971	Total No.of Beds 1978	Effective Number of Beds 1978	Number of Effective Beds Per 100,000
Beirut	885,000	2	1	250	30	3/100,000
Mount Lebanon	781,250	6	6	427	206	26/100,000
North Lebanon	602,500	4	4	257	47	8/100,000
South Lebanon	566,250	5	5	330	300	53/100,000
Bekaa	415,000	5	5	386	370	89/100,000
TOTAL	3,250,000	22	21	1650	973	30/100.000

Source of the Number of Hospital and Hospital Beds: Ministry of Health

Despite this distribution one cannot assume that all the hospital beds are the same in terms of quality and utilization.

Knowing the differences in the quality of medical care each hospital is offering, we question, the proper utilization of the hospital beds which register very low occupancy rates in the governmental hospitals especially after the war mainly because of loss of manpower.

Any way, according to the Ministry's actual report to the Council of development and reconstruction, the occupancy

rate is estimated to be 75% in the General hospitals in Beirut and nearly 30% in the rural hospitals.

A study published by the Office of Social Development, September 1978 shows the following distribution for the private hospitals.

Distribution of the private hospitals and beds in Lebanon according to Mohafazats (1978)

Mohafazats	Population	Number of Private Hospitals 1978	Number of Private Hospitals 1971	Total Number of Beds 1978	Number of Beds/ 100,000
Beirut	885,000	47	49	3185	360/100,000
Mount Lebanon	781,250	36	32	5292	678/100,000
North Lebanon	602,500	25	25	850	141/100,000
South Lebanon	566,250	14	14	537	95/100,000
Bekaa	415,000	1	1	105	25,100,000
TOTAL	3,250,000	123	122	9969	307/100,000

Evolution in the effective number of beds in both private and public hospital s from 1971 to 1978

	1971	1978	Evolution
Number of beds/Private hospitals	9149	9969	+ 8.96%
Number of Effective beds/Public hospitals	1546	973	-37.06%
Total number of beds	10695	10942	+ 2.3%
Number of beds per 1000 persons	4,11/1000	3,36/1000	

* The dispensaries are the other main health component of the health service. Despite its limitations the dispensary is the outlet of many voluntary social and religious movements, thinking that this attempt would cover the population but one would ask here important questions:

- What kind of care does the dispensary provide to the Public?
- Does this create a feeling of false reassurance at the level of the decision-makers?
- How many of these dispensaries are providing supervised medical care?
- How many of these dispensaries can insure proper referrals and continuity of care?

Any way the distribution of public and private dispensaries according to the Mohafazats and the Providers in 1971 is as follows:

Distribution of Public and Private Dispensaries according to the Mohafazats and the Providers in 1971

Mohafazats	Ministry of Health	Social Affairs	Municipality	Red Cross	Social Movement	Total	%
Beirut	1	2	15	3	26	47	16.5
Mount Lebanon	9	4	6	11	79	109	38.4
North Lebanon	13	6	2	5	18	44	15.5
South Lebanon	14	11	-	9	13	52	18.3
Bekaa	8	-	-	4	20	32	11.3
TOTAL % AGE	45 16%	23 8%	23 8%	32 11.3%	161 56.7%	193	1000

There is no coordination between the private and the governmental hospitals and dispensaries even among the Public Health facilities themselves. This is the cause of duplication of facilities like what is happening in Batroun, there are two dispensaries, one for the Ministry of Health and the other for the National Social Security Fund NSSF in the same building owned by the Ministry of Health.

Even if the distribution of health facilities does not seem very frustrating, still some villages lack the means for health care and here arises the problem of amenability because large proportions of the population lack the possibility of

contact with the health services but this problem might be justified at times by the Health insurance coverages.

2% - Health Manpower

Progress in the health field depends on having well trained personnel, sufficient in number and equitable in geographical distribution to provide the needed services for the population.

The Ministry of Health should know the resources of health manpower existing in the country, both in the government and in the private service. This will be a kind of supply analysis to be able to measure the current supply of all types of health workers.

Also it should assess the need and the demand for medical care and other health services and it should also decide on the types of health personnel and the training they need to provide efficient medical care.

Estimated Health Personnel in Lebanon

	No.	Pop/Health Personnel
Doctors	3000	1/1080
Dentists	932	1/3480
Pharmacists	894	1/3635
Nurses	2000	1/1625
Nursing Aids	998	1/3256
Midwives	500	1/6500
Physiotherapists	96	1/33854
Laboratory Technicians	200	1/16250
X-Ray Technicians	20	1/162500
Sanitarians	200	1/16250

Source: Ministry of Health, October 1977.

To be able to judge our gross figure in Lebanon let us compare it to other countries.

Health Personnel: Latest Available Year

Country or Area	Year	Physicians	Population Per Physician	Dentists	Pharmasists	Nurses	Mid-wives
Bahrain	1972	127	1732	13	8	645	314
Saudi Arabia	1973	2000	4995	45	117	2057	-
Syria	1972	1914	3485	537	1017	2345	1055
France	1971	71039	721	-	-	-	-
Italy	1971	99341	544	-	37200	127399	18828
Poland	1972	53040	623	14614	13367	112722	12911
Spain	1972	49256	700	3537	16925	-	4124
Sweeden	1972	11920	681	6990	-	51680	640
United Kingdom England & Wales	1971	62000	787	13400	13900	165400	18500
Australia	1971	16107	792	3477	8046	89520	-
United States	1971	333299	621	104000	130750	1175000	-
Israel	1972	8453	364	1748	1892	-	603
Lebanon	1973	2300	1330	583	612	2528	-

Source: World Health Organization.

We can conclude from this that Lebanon lacks health personnel in terms of quantity especially the Paramedicals although it is better shaped than most of the other developing countries.

But here some pertinent remarks are essential:

- The meaning of a doctor or physician varies from one country to the other in terms of quality and function and this makes us careful while assessing these resources outside the real context of the country itself.

Therefore one should be aware that the number of health manpower is not very much significant although it is important because we cannot but give the deserved crédits to the quality of medical care rendered, this also refers to the type of education and training they have undergone.

- The more acute problem appears when we talk about the distribution of health Personnel because this is an important indicator of how resources are being used.

These being taken care of, let us study the distribution of our Lebanese health manpower according to Mohafazats, the latest available is the 1971 distribution:

Distribution of Doctors according to Mohafazats in 1971

Mohafazats	Beirut	Mount Lebanon	North Lebanon	South Lebanon	Bekaa	Total
Number of Doctors	1300	325	200	110	65	2000
%age Distribution	65	16.2	10	5.5	3.3	100.0
%age Population	27.3	24	18.5	17.4	12.8	100.0
Population/Doctor	1/550	1/1925	1/2410	1/4120	1/5110	1/1300

Source: Ministry of Health.

Distribution of Nurses According to Mohafazat in 1971

Mohafazat	Beirut	Mount Lebanon	North Lebanon	South Lebanon	Bekaa	Total
Number of Nurses	956	295	169	56	38	1514
%age Distribution	63.14	19.5	11.16	3.7	2.5	100.0%
%age Population	27.3	24.0	18.5	17.4	12.8	100.0%
Population/Nurse	1/741	1/2120	1/2853	1/8090	1/8740	1/1717

Source: Ministry of Health.

Distribution of Pharmasists According to Mohafazat in 1971

Mohafazat	Beirut	Mount Lebanon	North Lebanon	South Lebanon	Bekaa	Total
Number of Pharmacists	96	105	34	20	19	274
%age Distribution	35.03	38.32	12.40	7.15	7.1	100.0%
%age Population	27.3	24.0	18.5	17.4	12.8	100.0%
Population/ Pharmacist	1/7375	1/5953	1/14176	1/22650	1/17475	1/9490

Source: Ministry of Health.

This distribution of health manpower shows a striking imbalance, favoring the urban over the rural areas.

A concentration of doctors and nurses in Beirut, the ratio of population to doctors and nurses is ten times as high in Bekaa as in Beirut. This is not the case for the Pharmacists because there are specific laws and policies related to the spacing of Pharmacies.

Therefore this problem of concentration of manpower in the city of Beirut can be taken care of by valid and well studied policies and laws to allow the potential medical care to reach all the people in the country.

3% - Health Insurance Scheme

The most prominent third party payors are:

A) The National Security Fund (NSSF):

The Lebanese Social Security is independent from the Ministry of Health, ensuring effective functioning even during the war.

The National Social Security Fund up till now seems to overcome easily its problems and function smoothly. The second stage of the Social Security Plan has been implemented.

In order to be covered by the Social Security Law and entitled to the benefits of sickness and Maternity Insurance

in other words to be insured one should fulfill the following requirements:

I. To be Lebanese.

II. To be under contract in Lebanon, written or verbal.

III. To work under such contract on the Lebanese Territory.

However the foreign wage-earners may be entitled to the benefits of the NSSF if they fulfill the following two conditions:

1. Reciprocal treatment to Lebanese by the country of the wage-earner.
2. Possession of work-permit.

Beneficiaries will include all the persons living with the insured under the same ceiling and at his expense. They comprise the parents, wife, husband, and children under sixteen years of age or over sixteen if they are following their studies.

If the insured needs hospitalization from the fund except in emergency cases, this approval will be valid for thirty days from the date of insurance.

In terms of hospital fees, the fund and the patient will pay his share in the form of daily fee or 24-hour stay in the hospital.

30% of the fee will be paid by the insured directly

to the hospital and 70% will be paid by the fund to the hospital. The amount of daily fee is usually agreed upon by the fund and the institution itself.

The NSSF has made it optional to the patient to choose the medical care he needs:

- by doctors practicing free therapy.
- by doctors under contract with institutions.
- by socio-medical institutions, such as hospitals and clinics.
- by polyclinics.

Despite being organized and functional one would be bothered by some questions pertinent to the NSSF:

* What about the indigent free-worker: All those working in Agriculture, building houses, taxi drivers, maids etc.
* Do these constitute a big proportion of the Population?
* What about the NSSF working alone and should'nt be coordinated with other health Sectors especially in terms of planning?
* What about the money of the fund? Should it be stagnant in the banks till the NSSF reaches a state of balance?
* Would the further plans for development of the fund be implemented? e.g. Old Age Insurance?

Any way one cannot forget that the National Social Security Fund has provided a good relief for the population especially in terms of quantity of care but if its role continues to be limited at providing the fund it will be incomplete because the quality care would be neglected. The NSSF should then coordinate with the high level Health providers in the country to be able to ensure more and more of better quality care, going hand in hand with the complete coverage of the Population.

ii) The Ministry of Health:

Coverage by the Ministry is mainly for hospitalization of indigent patients who are limited in number. The rates of the Ministry are the same as those of the NSSF except that the patient is not required to pay 30% of his bill. The whole patient bill is reinbursed by the hospital.

iii) United Nations Relief and Works Agency:

This is an agency responsible for the welfare of the Palestinian refugees. On a contract basis this agency reimburses the hospital concerned for the total patient fee.

iiii) The Private Insurance Groups:

There are some other third party payers mostly the private insurance groups who also reimburse the hospitalization of their patients on a Contract basis with the Selected hospital.

C) Levels of Preventable Diseases

Health cannot be measured because its presence can be a matter of a subjective judgment. But disease is measurable to an extent that it reflects important forces in the community. Therefore we have to use disease rather than health as an indicator which will enable us to compare among countries and even in the same country at different points in time. That is why to study the Pattern of diseases within a society means to study also the degree of its development.

1- Trend of Reported Communicable Diseases

In Lebanon unfortunately, the rates of diseases cannot be studied because of under-reporting, it will give us a biased picture on the state of the Lebanese health.

Therefore the trend of communicable diseases will be of value for us, because assuming the under-reporting in the present as well as in the past, it will enable us to study the evolution of these diseases.

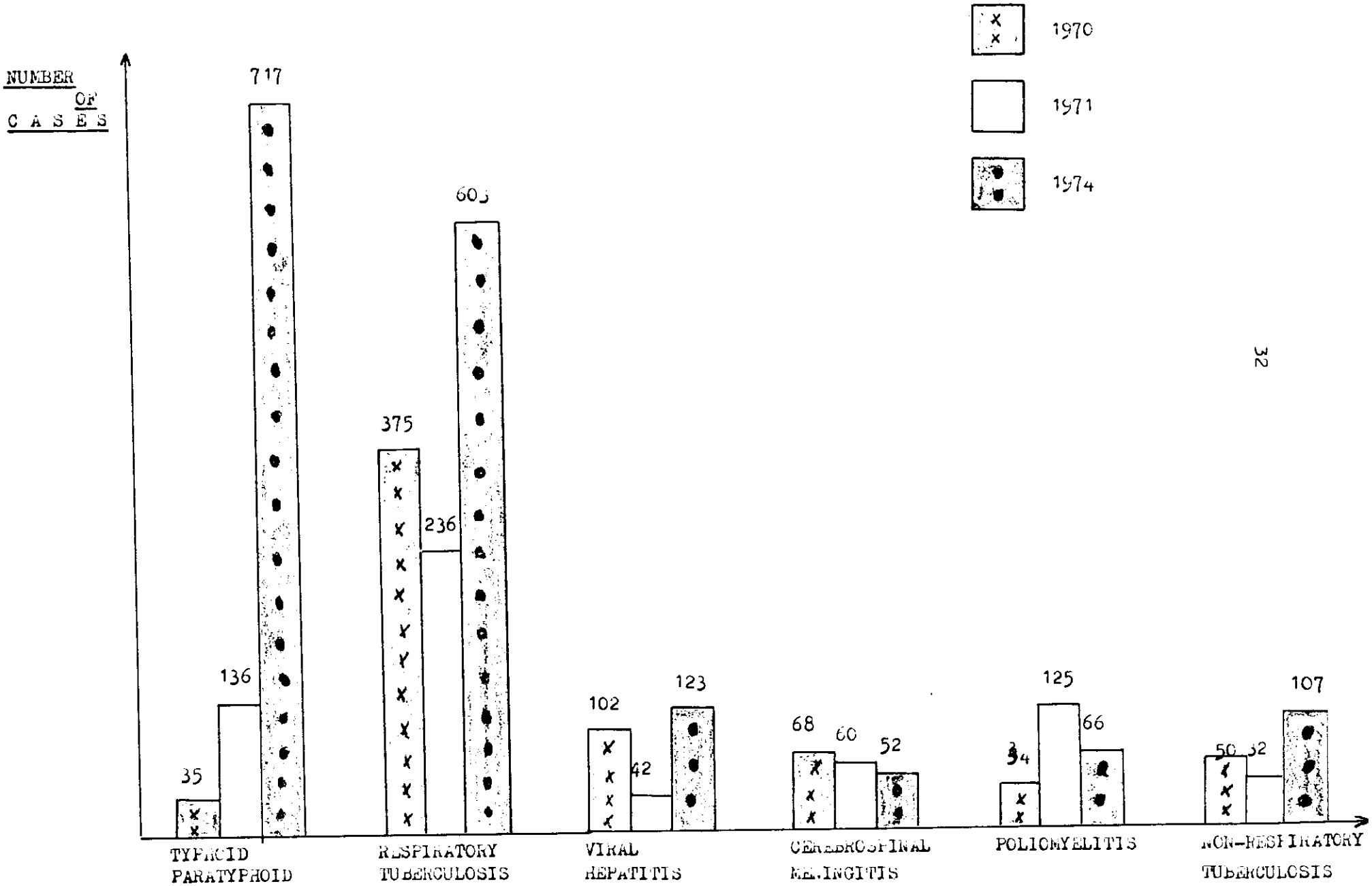
Percentage of Reported Communicable Diseases in Lebanon 1974

Diseases	%
Typhoid and paratyphoid	36.5
Respiratory tuberculosis	30.7
Shistosomiasis	8.65
Viral hapatitis	6.26
Non respiratory tuberculosis	5.44
Polionyclitis	3.36
Cerebrospinal meningitis	2.64
Alimantary intoxication	2.49
Dysentary B+A	1.22
Malaria	1.22
Others (diphteria, rabies, tetanus, leprasy, maltese fever, scarlet fever, anthrax, measles)	1.52
TOTAL	100.0

Source: Ministry of Health.

TREND OF REPORTED COMMUNICABLE DISEASES

DURING 1971 , 1972 , 1974



Even with underregistration, one can easily see the unnecessary high level of some diseases which can be curtailed like typhoid and paratyphoid fever, tuberculosis, viral hepatitis, poliomylietis, meningitis.

And even if it is not properly shown in the table because the data is incomplete, we have a high endemnicity level of Tetanus, measles, diphteria, and whooping caugh which are preventable.

It is essential for the Ministry of Health to devote a sizeable portion of the budget to control and eradication programs.

The epidemiological picture for most diseases, if changed has increased, whereas in the developed countries some of these diseases are completely eradicated.

Schistosoniasis for example is becoming more and more pronounced in the country because it is increasing in the South where water resources, mainly for irrigation, are being developed.

2* - Problems of Prevention

Since these diseases are very important Public health problems, causing high morbidity and mortality and since these are of Preventable nature, immediate actions of Prevention should be taken.

Here, some problems arise:

I. The environmental health measures which would reduce enteric infections, respiratory infections, food and water born diseases do not exist.

II. These diseases are underestimated because of lack of reporting.

III. Lack of epidemiological surveillance.

IV. The diagnostic facilities, to detect the diseases at their early stages are limited.

V. Immunization campaigns which would reduce Polio, diphteria, tetanus etc... are not always carried

The following table shows the number of vaccinations according to the dispensaries carried during the year 1977.

Vaccination According to Dispensaries and by Mohafazats 1977

Mohafazats	Total No. of Dispensaries	Number of Polio	No. of Triple Vaccine	No. of Small Pox Vaccine	No. of Tetanus Vaccine	No. of Whooping Cough Vaccination
North Lebanon	45	21	18	6	5	7
Mount Lebanon	98	36	35	8	1	1
Beirut & Suburbs	60	30	28	7	4	2
South Lebanon	29	5	3	1	-	-
Bekaa	19	3	3	-	-	-

Source: UNICEF 1977

3* - Prevention VS Control

Every one agrees that prevention of diseases is much more beneficial and efficient than its treatment. Prevention has also an additional advantage that it is much cheaper and much more economical in terms of Manpower and money use. Also one has to keep in mind that the outcome after treatment might not be satisfactory and might end up with handicapped people and this will increase the burden on the society.

* As far as the environment is concerned national programs for the promotion of environmental health should be developed and these should not only be restricted to the disposal of garbage and refuse but should include also the sanitary control and surveillance of the production, processing, packaging, distribution and serving of milk, milk products, meats, fish, shellfish and other foods; the control and surveillance of certain drugs, cosmetics and chemicals; the elimination of insect and rodent vectors of disease; the surveillance of the atmosphere to prevent pollution. Considering the dust, smoke and especially bacterial contamination, the surveillance of domestic water supply and the prevention of their pollution by man, animals and industries, the surveillance of the potable water in terms of the degrees of chlorination and fluoridation, the development of safe and satisfactory disposal of human and solid wastes, the supervision of recreational areas,

the studies of accidents and accident prevention, the promotion of occupational health, the surveillance of the amount of radiation and development of policies regarding its transportation and disposal etc....

* The epidemiological surveillance system should also be developed to be able to eradicate and reduce the incidence of many diseases. Notifications of occurance of diseases are essential especially those which are not subject to international Health regulations.

* Health laboratory technology should be developed.

The central Public Health Laboratory although well functioning is concentrating its activities on clinical pathology therefore, it is more of curative than of public health nature.

* Immunization should be carried routinely for certain diseases and should cover all the population.

However, the expanded immunization programs need to be connected with the epidemiological surveillance because of the evaluation of these programs very essential at all levels of implementation. Notifications of cases occuring before, during and after the implementation of the Immunization program assume the value of Parameters for evaluation.

Therefore the notification mechanism should be established in a systematic and rational way.

D) Medical and Paramedical Education and Training:

1. Medical Education:

a) Education and facilities

In Lebanon, we have two private schools of Medicine:

1. School of Medicine - American University of Beirut.
2. Faculte de Medecine - Universite St Joseph.

The first school's system is American oriented and the second is French.

Until recently these two schools functioned completely independently one of the other without coordination or common planning or shareness of the already existing facilities of the country.

The duration of studies at A.U.B. is seven years divided in three stages:

a) Two years of premedical studies, governed by competition among the students because the large number of students at the beginning of the premedical years will end up by 50-60 selected students on the basis of their grades.

A number of these students is being selected also after the completion of the bachelor of science in Biology or chemistry courses.

b) Four years of medical studies combined with practical training mostly done in the American University hospital.

c) One year of internship during which the medical student is allowed to take some responsibilities under the direct supervision of his superiors.

The duration of studies in the French faculty is also seven years. The fifty accepted students are selected after a difficult exam or: "concours" before starting their first year of studies.

The French faculty years of education are directed into three stages nearly similar to the medical studies stages at A.U.B.

The training of the French medical student is mostly done in the hospitals of the capital and the suburbs:

Hotel Dieu Hospital
Rizk Hospital
St. Georges Hospital
Lebanese Hospital
St. Joseph Hospital
Baabda Governmental Hospital
Quarantine Governmental Hospital

There is no doubt that these two schools of Medicine maintain high standards of medical education being accredited by developed western countries but these standards need not always be relevant to the local needs of our country.

The medical teaching in both of these schools for example lacks the proper emphasis on preventive and social medicine greatly needed in Lebanon.

Each school relates academically to the original state and university:

* A.U.B. relates to the New York University of Medicine.
* The St. Joseph Faculty relates to the Lyon University of Medicine.

The problem of irrelevance becomes even more pronounced because of the failure of the Ministry of Health to assess the specific needs of the country and to set up standards of accreditation for the two schools of Medicine.

Another important problem of the medical education in Lebanon is that it is highly expensive even 4-5 times more expensive at A.U.B. than at the St. Joseph Faculty of Medicine.

This is a basic obstacle for the good element to study medicine in Lebanon, when his family is not able to pay for him and due to his heavy curriculum he is rarely able to study and work in the same time.

Therefore, many of these students seek medicine outside Lebanon.

b) Lebanese Trained Abroad

In the paper on Health problems in Lebanon submitted

to the Council of Development and Reconstruction by the Saint Joseph Faculty of Medicine, the figures of the registered doctors at the Ministry of Public Health between the years 1971-1975 are described as follows:

The total number of registered doctors during that period of time is 729 doctors of which only 281 doctors have been trained in Lebanon or 38.5% (192 at the Faculte de Medecine universite St. Joseph and 89 at the American University of Beirut.

The other 61.5% of the registered doctors are graduated as follows:

* 32% from Western European countries (24% from France)
* 15% from Middle Eastern countries (11.5% from Egypt)
* 13% from countries of Eastern Europe (10.3% in U.R.S.S.)
* 1% from various countries such as Australia - India - Latin America.

In 1977, among the 123 registered doctors at the ministry, 39 graduated from Lebanon. In other words 31.7% only graduated from Lebanon.

* 33.3% from Western Eurpean countries
* 25% from France
* 27.6% graduated from Eastern Europe

Many of the students are now seeking their medical education in the so called "Second-Rank" schools because

acceptance at the "First-Rank" or high level schools in the United States, France, and England is becoming extremely difficult.

In order for a doctor to practice officially in the country he needs the Lebanese Colloquium which cannot be very reliable because it cannot indicate the quality of education and training of seven years of study.

C) Brain Drain

Unfortunately many of the Lebanese students studying abroad will not come back and also many of the very good doctors have left the country or are planning to leave.

This situation is usually due to the following factors:

1. The unstable political situation of Lebanon.
2. The high salaries outside the country especially in the States and in the Arab countries.
3. The impossibility locally to compete with these countries.
4. The availability of continuing education and research in the developed countries.

It is worthwhile to mention here the maldistribution problem which creates an urban versus rural state of imbalance and this problem was discussed earlier in this paper.

The problem of maldistribution of medical and para-medical personnel is more acute than the whole number of

available manpower.

The greatest number of doctors is found in Beirut, nearly 1doctor/516 inhabitants which is a high proportion relatively to the south for example where we have 1doctor/ 5568 inhabitants indicating a proportion of nearly 10 times more people/doctor in some of the rural areas.

This situation creates many health problems at different levels:

* Social and Financial State which has to do with the availability and amenability problem.
* Medical Problem: Emergency cases die sometimes before reaching a doctor or a hospital. In the case of pregnant women, the life of two persons can be in danger.
* Public Health Problem: The lack of medical and paramedical personnel in a specific area usually reflects poor social and health conditions and this will lead to a higher incidence of preventable and communicable diseases.
* Geopolitical Problem: All the above description will increase the exodus of health Manpower from the rural areas to the suburbs and this will create the dangerous "Misery belt" around Beirut which will aggravate the social conflicts within the country.

2* Paramedical Education

The whole country relies on one school of Public Health, one school of Pharmacy, one school of Dentistry, two schools of Nursing which are of university levels, one school of Physical Therapy, one school of radiography, two schools of Laboratory Technicians.

The enrollment of students in these schools does not answer the country demand and actual need for the paramedical personnel.

The role of the auxiliary medical person especially in a country like Lebanon, should not only be emphasized but also over emphasized and this is to be able to ensure adequate coverage at all levels. The bulk of the work ought to be done by these people, in other words these people should be put in the front of the picture and should carry the primary work, ensure proper referrals to the more specialized persons. This is the basis of implementation of primary health care.

It is worthwhile to notice here that Lebanon is not able to keep its actual paramedicals because some of the countries especially the Arab countries are giving our people 3 to 4 times what they earn in Lebanon. This has led to a great Nursing drain which has reached its peak during the civil war in Lebanon, this means also that: the culminating point is still maintained!...

III. Major Constraints Limiting Health Development

1. Shifts in priorities because of lack of planning. If the needs of a country are not assessed, no priorities can be set and since the planning cannot be met all at once therefore we can expect sometimes to start with the least important in other words: to shift our priority needs.

2. High Cost of Services: This is due to the high cost of living and this problem is acute in our country because of the scarce resources.

3. The Maldistribution Problem: This has been discussed earlier in this paper but here the health insurances coverages can justify this problem of equity, if Health Insurances are more controlled and betterly planned by our government.

4. The Inadequacy of Coverage in Relation to the Needs: This has to do with the supply-demand of the country which becomes more and more inbalanced because the first one is decreasing and the second is increasing exponentially and is more aggravated by the unstable political situation of the country.

5. Problem of Amenability: Large proportion of the population lacks the possibility of contact with the health services.

6. Lack of Utilization of Governmental Services: Many doubts are expressed about the intrinsic benefits and the value of preventive, curative and restorative interventions done at the governmental level.

Any way one should be careful about this generalization because despite being few there are some facilities which are well performed by the government as an example of this is the kidney dialysis in the Batroun Hospital.

7. Lack of Coordination: Between the private and the public sector on one hand and within each sector on the other hand leading to a state of "No coordination" among the health services and facilities which leads to duplication of health services.

8. Lack of Control and Supervision: The Ministry of Health which should in principle control and supervise the health sector is dormant.

If the Ministry of Health is not able to provide for its consumers their minimum needs, at least it should develop qualities of supervision and control of the providers to ensure proper quality of health services and to cut off the profit-making individuals and groups who can exploit the needy instead of supporting him. This of course is leading to a chaotic state in the country.

9. Population Increase: The Lebanese population like the world population is increasing. This increase is more acute in a developing country where Mortality in general has decreased due to the advanced medical knowledge and the birth rates have increased due to the lack of practice of family planning and

the taboo on abortion.

Family planning newly started in Lebanon but needs to be more supported by the government and illegal abortions are carried among some practitioners and some birth attendants.

The increase of the population has also its consequences on the medical resources for example the ratio of health manpower will drop.

10. Major Statistical Information Gaps: Lebanon is one of the three countries of the world which do not have a census.

* How can one make any planning for his consumers if he does not know the actual number of his target population?

* How can one plan for disease control if he does not know the actual incidence and prevelance of some diseases?

* How can one prepare a long range developmental plan if he cannot obtain the necessary data?

Information about the perceived health needs of populations is an essential requirement for the final stages of decision-making.

Although these stages are basically political in nature, the decisions should be guided by evidence and logic meaning, the basic statistical information.

The irony of our age is to know that in the states, the application of electronic data processing in this field has started especially in determining base-line data which is the basis for accurate and rapid health programs and to realize that in Lebanon this department does not exist yet.

IV. Recommendations

If we adopt the definition of the World Health Organization on health which states the following:

> "Health is a state of complete physical mental and social well being and not merely the absence of disease or infirmity"

And because of its position of primary responsibility for community health matters, the organization and function of the official health body deserves special consideration.

Theoretically the Ministry of Health should be involved in a wide variety of services and activities.

Therefore we need to:

1* Reorganize the Ministry of Health on the Central and Provincial levels with the new active advisory body.

2* Make the Local Health Departments Functional

The basic function of the local health departments should include at least the followings:

1. Vital Statistics
2. Environmental Health
3. Maternal & child health including family planning
4. Communicable disease control
5. Chronic disease control
6. Mental health including addictive disease programs especially after the civil war.
7. Promotion of adult health

8. Laboratory services
9. Health education

3* Develop control and supervision abilities at the level of the ministry.

4* Improve the coverage and the content of health services

5* Improve the process of health planning. Careful process of planning should be stated based upon the needs of the population and integrated at each level with the social and political values.

6* Start the statistical information system to be able to have necessary data for planning and evaluation of health services.

7* Terminate the services of dubious value.

8* Coordination and participation among all the health providers should be started because these are supposed to share the same concern and responsibility for certain special aspects of the well being of the community.

9* Decentralization should start with proper planning, to be able to ensure proper coverage.

10* The primary health centers should be developed and proper hospital planning to ensure proper referrals and continuity of care.

11* Supply-Demand and cost analysis should be started and developed.

12* Since medical care is difficult to be reached by all the population, setting priorities in any planning is very essential especially in a developing country like Lebanon because of the scarce resources.

For example Community Health Programs have to put a special emphasis on the so called "population at risk" to be able to protect the expectant mothers and the young children.

Since the mothers and children constitute nearly 60%* of the Lebanese population an emphasis on maternal and child health centers is required.

13* There should be a direct control of the Ministry of Health on the curriculum of the medical and paramedical schools in Lebanon with specific criteria for accreditation based on the basic needs of the country.

14* The Ministry should support these schools in providing adequate funds for teaching the students, develop new programs for training, continuing education and recyclage for the auxiliary personnel and to develop research in the medical and scientific fields related to health.

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*Source: Dr. Harfouche, pamphlet on the distribution of health services in Lebanon, 1977.

15* If proper planning is carried the Ministry should be able to assess the manpower needs of the country and develop its programs accordingly.

16* The Government should also take the proper measures to retain health manpower and specialists in Lebanon.

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