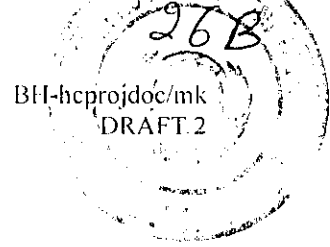


Republic of Lebanon  
Office of the Minister of State for Administrative Reform  
Center for Public Sector Projects and Studies  
(C.P.S.P.S.)

LEB1961100



## **PROJECT DOCUMENT**

# **BAALBECK HERMEL HEALTH SECTOR REVIEW AND PLAN OF ACTION**

## **PHC PUBLIC CENTERS COMPONENT**

## I. BACKGROUND AND JUSTIFICATION FOR THE PROJECT

The two Qadas of Baalbeck and Hermel cover a total area of approximately 2,640 km<sup>2</sup>, constituting approximately 26% of the total area of Lebanon. The area is estimated to have between 220-230 towns, villages, and human settlement areas. The exact number of human settlements remains imprecise due to two factors: seasonal population movements and the small size of some settlements (sometimes as small as 3-4 housing units belonging to members of the same family).

The total population has recently been estimated to be 250,000 persons, 225,000 of which reside in the Qada of Baalbeck, while 25,000 reside in the Qada of Hermel (ACS, 1997). Another national-scale survey has estimated the total population at around 190,000 persons with around 152,000 persons residing in Baalbeck and 38,000 residing in Hermel (PHS, 1996). The ACS survey has estimated the average family size to be 5.2 persons, with an average of 3.13 children. 16.6% of households were found to constitute more than 8 members.

Geographically, the area is large and settlements are dispersed. The Jurd areas are rough in terms of both climate and terrain. The road network has improved in the last few years but some villages remain without proper access roads. There is no public transport system in the area, and residents rely on privately owned cars and a very limited number of "taxis", operating mainly within the larger towns and along the main roads. The telephone network has only recently been repaired and rehabilitated, after an almost total breakdown lasting more than 15 years.

The mainly rural areas of Baalbeck and Hermel have historically suffered from marginalization and under-development, apparent in the unbalanced development of these areas in comparison with other areas of Lebanon. As such, the areas of Baalbeck and Hermel, suffer from the inadequate supply and distribution of infrastructural services such water, sanitation, housing, health care, and education. The 1997 ACS survey found that 53.1% of households were not connected to public water supplies and that 33.5% depended on well-water. More alarming was the finding that 82.6% of households were not connected to a sewage network.

Economically the areas of Baalbeck and Hermel suffer from an almost total reliance on low-return agriculture, especially since the enforcement, in 1991, of the total ban on the growing of illicit crops which used be the main cash crop and a source of high income for many residents of the area. At present, the majority of employment is provided by the agricultural sector and the armed forces.

School enrollment was found by the ACS survey to have risen over the years to reach 95.4% of those between the ages of 5 and 9 years, dropping to 89.6% for males and 94% for females for those between 10 and 14 years, and to 60.9% for males and 64.3% for females for those aged between 15 and 19 years.

The deficiencies in the health delivery system are especially glaring. Apart from a few dispensaries and health centers, services are mainly concentrated in the private sector, whose services are often too expensive for the population. An IRDP report has estimated that 72% of Baalbeck villages and 97% of Hermel villages are without a health care center or dispensary. Hermel has only one government hospital which despite IRDP support in terms of rehabilitation and equipping remains largely non-functional. Another government hospital is located in Baalbeck. This hospital is included under a Ministry of Public Health scheme for rehabilitation funded through a loan from the World Bank. At present, however, it functions largely as outpatient clinics, while in-patient services remain largely unused. Hospitalization in both areas is heavily reliant on private hospitals, often under MoPH coverage. Fees to be paid by users, however, remain high. The ACS has estimated that 7.1% of family expenditures is spent on health care, while 12.7% of families reported that they had had to borrow money in order to finance health care costs.

Health care workers that exist and are working in the area are insufficient in terms of both quantity and quality, and appear to require re-training. The deficiencies in numbers is characteristics more of nursing and other para-medical staff than it is of physicians.

#### The Kuwaiti-built Health Centers and Hermel Rural Hospital

In late Summer of 1997 the Kuwaiti Fund for Development handed over a number of built and fully equipped Primary Health Care Centers to the Lebanese Ministry of Public Health. Four of those Centers are located in the Qada of Baalbeck in the towns of: *Irsal*, *Nabi Sheet*, *Deir el-Ahmar*, and *Shmistar*. Each Center is assumed to serve a catchment of population of between 25-30,000 persons, the national standard set by the Ministry of Public Health and WHO in 1993.

The four Centers have, however, remained unused due to the inability of the Ministry of Public Health to provide the necessary manpower and supplies to run them. This is in large part the result of the complex bureaucratic procedures that need to be followed, and which promise to delay the opening of these Centers indefinitely.

The four Centers serve the communities also served by the Integrated Rural Development Project of Baalbeck-Hermel (UNDP/ UNDCP) which has as one of its main components the improvement of health status of the population and the strengthening of health care services in the area. As such a suggestion has arisen to formulate an agreement between the Ministry of Public Health and the IRDP whereby the IRDP assures the functioning of the centers, under the Ministry's supervision and with joint funding.

#### Hermel Rural Hospital Health Center

In addition, during Phase I of the Integrated Rural Development Project for Baalbeck and Hermel, a major component of the project was the physical rehabilitation and the purchase of basic equipment for Hermel Rural Hospital (HRH). The rehabilitation and equipping had the original objective of making the following units of the hospital functional:

1. Laboratory Services: including basic machines, reagents, and kits
2. X-ray Services: including necessary X-ray machines and materials
3. Delivery Suite: including Ultra-Sound machine, fetus Doppler, and incubators
4. Small Operations Room: full basic equipment
5. Ambulance Transport Services: full basic equipment (2 vehicles)

Existing personnel at the HRH, both medical and non-medical were at the time insufficient to run the hospital as planned. Hence, additional medical personnel was secured through contractual agreements with the Ministry of Public Health. The hospital has remained largely non-functional, with the exception of certain out-patient consultations.

It is important at this stage that HRH becomes fully functional, at a minimum as a Health Center along the same model employed for the four new Health Centers in the Baalbeck area, such that it is able to address the immediate needs of the population of Hermel Town and its surroundings.

#### Baalbeck Public Hospital Maternal and Child Health Center

Furthermore, in December of 1997, a new Maternal and Child Health Center was opened in Baalbeck Public Hospital with assistance from Unicef, which had played an instrumental role in supplying basic equipment and furniture. The Center is staffed by 2 full-time BP nurse-aides (trained at Baalbeck Vocational Training School by the IRDP), 2 midwives from the Hospital working on the basis of a shared shift, 2 Pediatricians also from the hospital and working on the basis of a shared shift, and 4 Ob/Gyn Specialists from the Hospital also working on the basis of a shared shift.

The work of the Baalbeck Maternal and Child Health Center (BMCH) is limited in scope, being focused on pediatric, gynecological and obstetric consultations, and well as operating a dental service. The load of work at the BMCH Center, however, suggests that the Center is addressing a need in the area.

Within the scope of this Project, it is foreseen that the BMCH needs to be supported in terms minimal supplementary equipment and staff training and incentives, such that the services offered are developed and improved, incorporating a more preventive and promotive community-health orientation.

#### Mechanisms of Cooperation

The Ministry of Public Health has already expressed its commitment to provide financial support in addition to medicines and basic medical supplies as its contribution to the running of the Centers.

The IRDP has expressed willingness to divert some of the funding initially earmarked for the establishment of new health care centers in the area to the running and support of the six Centers.

Within this Project, the running of the four Kuwaiti-built Health Centers and of Hermel Rural Hospital and Baalbeck Maternal and Child Health Center, are viewed as one component of a larger multi-faceted program whose aim is the improvement of health status in the areas of Baalbeck and Hermel.

## II. OBJECTIVES OF THE PROJECT

The project is to be implemented over a period of two years and will have the following objectives:

- The main objective of this project is to offer a high quality, reliable health services to the currently under-served population in the five areas of 'Irsal, Shmistar, Nabi Sheet, Deir el-Ahmar, and Hermel, at affordable prices.
- A second objective of the project is to support the efforts of the Ministry of Public Health in the development and delivery of Primary Health Care.
- A third objective of the project is to develop centers for outreach and other health activities involving the local communities, at the design, implementation, and monitoring stages .

### III. STRATEGIES OF WORK

As the Ministry of Public Health is at present unable to employ the needed staff directly on its cadre of employees, and as budgetary restrictions limit the Ministry's capacities to purchase needed medical and other supplies, it is proposed that a Joint Project be established in which three authorities and agencies take part in partnership; namely the Ministry of Public Health, the Council for Development and Reconstruction, and the UN Integrated Rural Development Project for Baalbeck and Hermel.

It is proposed that the three partners co-share the costs of running the five centers for a period of two years, such that the Centers fulfill the objectives set out above, and fulfill the functions of PHC centers as outlined by the Ministry of Public Health (see below).

#### Functions of the Primary Health Care Centers

It is foreseen that each of the four Centers would serve as a model for the application of Primary Health Care as envisioned by the Ministry of Public Health. This is expressed in the "package of services" outlined in the cooperation contract currently in effect between the Ministry and a number of NGOs, and which is anticipated to be the core of the future Primary Health Care policy currently being elaborated.

The main tenet of the Ministry of Public Health's PHC Strategy is a commitment to health as a basic human right and to the concept of health as a state of total physical, mental, professional, and social well-being, and not simply the absence of disease or illness or infirmity. The achievement of health for all the population is based on the elaboration of a Strategy based on the following elements:

- The provision of Comprehensive Primary Health Care (CPHC) on the basis of sound and scientific technologies, which are socially and professionally acceptable.
- The provision of this Care to individuals and families within their communities and through their full participation and at a cost which is affordable to them.
- CPHC is a basic component of the National Health Care System, and is its main mission.
- PHC is the first level of contact between individuals and families and the National Health Care System.
- The provision of CPHC such that it includes preventive, promotive, curative, and rehabilitation services as needed.
- The assurance that training of health manpower is compatible with the real needs of communities, and with the needs of health delivery facilities and their geographic distribution.
- Coordination and complementarity with all health care providers with the aim of improving quality of care.
- The development of the existing Health Care System at all levels such that it serves the principles outlined above.

The PHC Center is seen to be the principal component in the achievement of CPHC. The PHC Center is perceived as the health care unit providing basic health services to a

defined population based on the principles of PHC and on the needs of the population, in coordination with the State, community, and professional agencies involved in the health sector, it is the responsibility of the PHC Center to provide referral to a secondary or tertiary level of care whenever needed.

As such, the main functions of each of the four Centers should be based on the following guidelines:

A. The provision of basic health services, according to a set of national programs, including at a minimum:

1. Curative care and the provision of essential drugs whenever needed. Early detection of chronic illnesses and referral to higher levels whenever necessary.
2. Child care and immunization.
3. Reproductive Health Care: Ante-natal care, women's health care, and family planning
4. Dental/ Oral health care.
5. Health education and community involvement.
6. Environmental health and combating communicable and endemic diseases.

B. Gaining knowledge as to the common health problems of the population served, and ways of combating them.

C. Gaining knowledge of the Governmental and non-Governmental organizations active in health care provision or prevention activities in the area, and initiating and encouraging cooperation and the active participation of the community.

D. Assistance to other health programs in the area, such as school health and occupational health programs.

E. The Provision of guidance and assistance for nutritional improvements and healthy eating habits in the community.

F. The collection and organization of health information and statistics for the population served.

G. carrying out the periodic evaluation of health status and ongoing health programs as well as the level of efficiency of the Center.

A detailed description of the activities included within each of the tasks listed above are found in the Ministry of Public Health's "contract of cooperation" with NGOs.

In terms of the implementation of the Project, several principles will need to be adhered to:

#### **1. Personnel:**

Technically competent personnel, both administrative and medical and para-medical, will need to be identified, and recruited. Effort should be made to recruit Administrative



personnel and the majority of medical and para-medical personnel from within the communities served by the Centers. Where possible, "recycling" of personnel already under contract with the MoPH will be given priority. This is especially true in terms of identifying Specialist Physicians.

The following categories of personnel have been identified as the minimum required to run the health centers, such that a basic package of services is ensured. Further expansion in the services offered by the Centers would ensue in the future once each Center is open and functional, and as resources become available.

Health care workers in the PHC Center should constitute a team made up of trained personnel under the leadership of the Center's Director. The team should be made up of administrative workers and health/ medical workers. A listing of the minimum basic staff requirements to run a PHC Center follows:

The Four New Kuwaiti-Built Centers:

As the four Health Centers are as yet non-functional, staff to run them will all need to be newly recruited.

**Administrative Staff to be Recruited:**

<u>Title</u>	<u>Quantity</u>
Director	1
Adm. Assist./ Records	1
Pharmacy Clerk	1
Cleaner / Guard	1

**Health/ Medical Staff to be Recruited:**

<u>Title</u>	<u>Quantity</u>
General Practitioner	1
Nurse BT	1
Nurse BP	2
Lab Technician	1
X-ray Technician	1

In addition a number of specialists will need to be recruited on a part-time basis. Three Specialties in particular (Pediatrics, Obstetrics & Gynecology, and Dentistry) should be ensured on a regular basis at each Center. Three to five visits per week are thought to be the minimum required presence of these Specialists.

Other Specialties should include:

- Internal Medicine (1)
- Cardiology (1)
- ENT (1)
- Ophthalmology (1)

Those will be expected to be available on a variable schedule according to need and work requirements. It is assumed that a minimum of 1 or 2 two hour visits will be required per month.

Hermel Rural Hospital Health Center:

At present the HRH has a core staff of Administrative and Medical personnel. The currently employed staff of HRH stands as follows:

ADMINISTRATIVE

<b>Title</b>	<b>Number</b>
Director	1
Administrative Assistant	3

MEDICAL & PARA-MEDICAL

<b>Title</b>	<b>Number &amp; Remarks</b>
General Practitioner	3 Part-timers
Pediatrics	2 Part-timers
ObGyn	2 Part-timers
General Surgery	2 Part-timers
ENT	1 Part-timer
Cardiovascular	1 Part-timer
Pulmonary	1 Part-timer
Midwife	1
Nurse-Aides	9
Laboratory Technician	2: 1 of which also acts as Admin. Assist.
Ambulance Driver	1

A number of staff will need to either be newly recruited or retrained and re-assigned in order to come closer to the model of the team suggested for the other Health Centers. This will entail the following minimum:

Recruitment Requirement:

Administrative Personnel:

- One Cleaner/ Guard will need to be recruited.

Medical Personnel:

- One Nurse BT will need to be recruited.
- One X-ray Technician will need to be recruited.

### Re-Training & Incentives for Staff:

#### Administrative Staff:

- The current Director of the HRH will need to be re-trained in basic and administrative management skills.
- Of the 3 currently available Administrative Assistants, one will need to be re-trained to fill the functions of a Pharmacy Clerk. Another will have to be trained to become responsible for Medical Records and the HIS. The third can for the time-being continue in his double roles as Admin. Assistant and Lab Technician.

#### Medical Staff:

- General and Specialist Physicians appear to be sufficient. as do their salaries.
- The salary of the Midwife will need to be supplemented.
- The majority of Nurse Aides will need to be re-trained to undertake health education and community outreach programs and to be involved in activities such as school health and the TB program.

### Baalbeck Maternal and Child Health Center

At present the BMCH has employs a core of Medical personnel, while Administrative issues are dealt with by the Head Nurse of Baalbeck Hospital. Available personnel are as follows:

#### MEDICAL & PARA-MEDICAL

<b>Title</b>	<b>Number &amp; Remarks</b>
Pediatrician	1 (2 Part-timers)
Ob/Gyn	1 (4 Part-timers)
Dentist	1 (2 Part-timers)
Midwife	1 (2 Part-timers)
Nurse-Aides (BP)	2
Cleaner	1

- There is at present a need to recruit a dental assistant , or to re-train on of the existing BP nurse-aides to act as a dental assistant.
- The salaries of other staff will need to be augmented in line with those of staff in the other Centers.
- There is also a need to recruit/ formally assign a Director for the Center, and to train the Director in basic administrative and management skills.
- One administrative assistant will need to be recruited to act both as a Medical Records Clerk and a Pharmacy Clerk.

BMCH Health Center will continue to rely on the Laboratory and X-ray services available in Baalbeck Hospital, and hence no extra personnel need be recruited nor equipment purchased to that end.

## **2. Medicines:**

To assure quality of care and to enhance the Centers' reputation and credibility among the served population, the supply of essential PHC drugs needs to be ensured throughout the year.

In accordance with the National List of Essential Drugs, there are at present three different sources for medicines:

1. The Ministry of Public Health, directly
2. The Ministry of Public Health, through a joint program with the YMCA for the provision of medicines for chronic illnesses
3. The market

The Ministry of Public Health has already purchased through Unicef, drug supplies based on the national essential drugs list, believed to cover the needs of functional PHC centers. Cost per Center is thought to be in the range of USD 20,000 per year. This in addition to the drugs available through the joint Ministry/ YMCA program for drugs for chronic diseases. The Ministry has available a total of 144 drugs that it is able to supply to Health Centers. The Ministry also has available a supply of vaccines in accordance with the National Immunization Schedule. Those also will be supplied to the Health Centers on a regular basis.

## **3. Fee for Service:**

To insure a degree of continuity, sustainability, and quality of care in the health centers, a fee must be charged to the targeted population in exchange for the medical and health services and care they receive at the centers.

As, however, the area of Baalbeck-Hermel is considered one of the more disadvantaged in the country it is foreseen that fees are kept to a minimum, with clear provision for fee waiver in case of extreme poverty. This should be especially true during the first year of operation of the Centers where the aim is to encourage as many users as possible to turn to these facilities and to introduce the fee-for-services in as smooth a manner as possible. As such a set of minimum fees is suggested below.

### **SUGGESTED FEES**

The Ministry of Public Health is currently in the process of passing a "decree" allowing Public Health Care Centers to charge users a nominal fee for services offered. A fee schedule, intended to be used as a "price ceiling" is being finalized to act as a guidelines for Centers intending to charge a fee. This fee schedule was used to as the basis for the fees suggested for the Baalbeck and Hermel Centers. Most prices were reduced by between 25 and 50%. The suggested fees are as follow :

**CONSULTATION FEES:**

As per the recommendations of the Ministry, a flat fee of LL 5,000 per consultation, both by a General Practitioner and by a Specialist, is adopted here.

**X-RAY FEES:**

Undercutting the fee recommended by the Ministry by 20%, a flat fee of LL 8,000 per X-ray, or set of X-rays that a patient may require during one visit.

**LABORATORY FEES:**

Based on the prices recommended by the Ministry for a list of 28 laboratory tests, an average of the fees for the simpler and more common tests was derived and then undercut such that the suggested flat rate per lab test is LL 5,000.

**ULTRA-SOUND FEES:**

Based on the fees currently being charged for Ultra-Sound (ObGyn) examinations in the areas of Baalbeck and Hermel, the lowest price is adopted. This stands at LL 10,000 per examination including Ultra-Sound.

**EKG:**

Undercutting the Ministry's recommendation for EKG by 50%, a fee of LL 1,500 is suggested.

**DENTISTRY FEES:**

Assuming a flat rate for "simple procedures" (such as cavity fillings) and another for more "complex procedures" (such as the removal of damaged nerves), and using as a base the fees recommended by the Ministry while under-cutting those by about 25%, a fee of LL 3,000 is suggested for simple procedures, and a fee of 6,000 is suggested for complex procedures.

**4. Essential medical supplies:**

In addition to medicines, the availability of other essential medical supplies must be assured. This is especially true in terms of X-ray and laboratory services, whose functioning is crucial for the credibility of the Centers and whose presence would act to attract users to the Centers. The following medical supplies, should, therefore, be assured throughout the year in each of the Centers:

- X-ray film and development chemicals:
- Lab reagents and kits:
- Other supplies, such as gauze, cotton, alcohol, etc..

**5. Essential non-medical supplies:**

Other supplies whose presence needs to be assured include, stationary items, telephone bills, water bills, electricity bills, cleaning materials, equipment depreciation, etc...

The assumption has been made that the files and other stationary items required by the Ministry of Public Health as part of its new Health Information System for PHC, will be supplied by the Ministry free of charge, and their cost, has therefore not be accounted for here. In addition to the reporting forms, the following items need to be purchased and secured:

- Stationary
- Telephone
- Water & Electricity
- Cleaning & disinfecting materials
- Maintenance & fuel

As well as various other miscellaneous items.

#### **6. Referral System:**

One of the basic tenets of Primary health Care is the availability of Secondary referral centers to support the work of Health Centers. While the rehabilitation and re-organization of public hospitals is an issue which the Ministry is currently struggling to resolve, in an effort to improve the quality of services and the efficiency of management, the areas of Baalbeck-Hermel, especially Hermel, remain without proper public hospital facilities.

Baalbeck Hospital is among a number of hospitals targeted by a currently ongoing World Bank funded program aiming at physical rehabilitation, equipping, and management rehabilitation. It also appears to be one of the public hospitals included in the scheme to make public hospitals financially and administratively independent under a recently issued law.

Hermel Rural Hospital, on the other hand, remains non-functional largely for lack of a number of essential personnel. As the only public hospital in a destitute area, it is seen as fundamental that HRH be supported in order for it to begin in turn to fulfill its support role of PHC Centers and activities in Hermel. It is within this context that the recruitment or salary supplementation of key personnel is suggested within this Project.

#### **7. Management and Monitoring:**

Management and the day-to-day running of the Health Centers will require the development of a comprehensive Management Plan to include, personnel management, financial management, record keeping and HIS, stock keeping and storage, etc.. It is suggested for this purpose that a **short-term local consultant** be identified and recruited to work with the Department of Social Health at the Ministry of Public Health, which has the overall supervisory role over all Health centers, to develop National Management Guidelines for PHC Health Centers.

It is foreseen that the six Health Centers included in the present Project would constitute the pilot sites for such Management procedures to be implemented, including the training of staff that will be required.

Unicef have already expressed interest in funding such an activity.

The overall responsibility for the proper functioning and high quality of services offered by the Centers will rest with the **Health Coordinator** that is to be recruited by the IRDP for the management of the IRDP's overall health program. The Coordinator's role will include facilitating the Centers' work through the provision of supplies and the arranging of training for staff, and monitoring the progress of work to ensure that high standards are met and maintained.

It is also foreseen that the Project Health Coordinator will be assisted by a team including an **Accountant** whose duties will include insuring that the proper financial management of the six Health Centers, especially the collection of fees and spending on salaries, staff incentives, and purchases, along guidelines agreed upon before hand with the Ministry of Public Health, the IRDP management and the Project Health Coordinator.

#### IV. BUDGET

The application of the above mentioned will entail the following expenditures:

##### I. Personnel:

##### The Four New Kuwaiti-Built Centers:

##### **Cost of Administrative Staff to be Recruited:**

<u>Title</u>	<u>Quantity</u>	<u>Salary/month (\$)</u>	<u>Salary/ year (\$)</u>
Director	1	500	6,000
Adm. Assist./ Records	1	300	3,600
Pharmacy Clerk	1	300	3,600
Cleaner / Guard	1	250	3,000
<b>Sub-Total 1</b>			<b>13,200</b>

##### **Cost of Health/ Medical Staff to be Recruited:**

<u>Title</u>	<u>Quantity</u>	<u>Salary/month (\$)</u>	<u>Salary/ year (\$)</u>
General Practitioner	1	850	10,200
Nurse BT	1	400	4,800
Nurse BP	2	300	7,200
Lab Technician	1	300	3,600
X-ray Technician	1	300	3,600
<b>Sub-Total 2</b>			<b>29,400</b>

The three Specialist whose presence is essential on the basis of between 3-5 visits per week are a Pediatrician, an Obstetrician/ Gynecologist, and a Dentist. For their services, each of the three Specialists is to be paid the sum of USD 200 per month. This results in a payment for Essential Specialties of USD 600 per month per Center.

##### **Sub-Total 3: Essential Specialists = USD 7,200**

Other Specialties which include Internal Medicine, Cardiology, ENT, and Ophthalmology will be contracted on the basis of a flat rate of LL 20,000 per visit to the health center, the common rate in the area, for two visits per week, which would result in the payment of the following:

LL 20,000 x 2 visits/wk x 4 Specialists x 52 wks = LL 8,320,000 per year

##### **Sub-Total 4: Other Specialists = approximately USD 6,000 per Center per year.**

The above result in a total personnel cost per year per Center of:

USD 16,200 + USD 29,400 + USD 7,200 + USD 6,000 =  
**USD 58,800 per Center per year**



HRH Health Center:

A number of staff will need to either be newly recruited or retrained and re-assigned in order to come closer to the model of the team suggested for the other Health Centers. This will entail the following minimum:

**Recruitment Requirement:**

**One Cleaner/ Guard** will need to be recruited at a cost of USD 250/ month  
= **USD 3,000/ year**

**One Nurse BT** will need to be recruited at a cost of USD 400/ month  
= **USD 4,800/ year**

**One X-ray Technician** will need to be recruited at a cost of USD 300/ month  
= **USD 3,600/ year**

**Sub-Total 5: Personnel Recruitment HRH = USD 11,400 per year**

**Re-Training & Incentives for Staff Requirements:**

Administrative Staff:

The current Director of the HRH will need to be re-trained in basic and administrative management skills. To make the salary of the Director compatible with those of other HC **Director** the amount of USD 200/ month could be paid =  
**USD 2,400/ year**

To make the salaries of the three existing **Administrative Assistants** comparable with those in other Health Centers, each could be paid the amount of USD 100/ month = 3 x 100 x 12 =  
**USD 3,600/ year**

Medical Staff:

The HRH already employs 3 General Practitioners and 9 Specialists. The rates being proposed at other Health Centers appear to be compatible with the scales those physicians are currently on. No further payments to physicians are seen to be necessary at this point.

A supplementary payment of USD 100/ month could be made to the **Mid-wife** = **USD 1,200 per Year**

A supplementary payment of USD 50/ month could be made to the **9 Nurse Aides** = **USD 5,400 per Year.**

**Sub-Total 6: Incentives HRH = USD 12,600 per year**

BMCH

A number of staff will need to either be newly recruited or retrained and re-assigned in order to enhance the capacities of the MCH Center. This will entail the following minimum:

**Recruitment Requirement:**

**One Dental Assistant** will need to be recruited at a cost of USD 300/ month  
= **USD 3,600/ year**

**One Administrative Assistant** will need to be recruited at a cost of USD 300/ month  
= **USD 3,600/ year**

**Sub-Total 7: Personnel Recruitment BMCH = USD 7,200 per year**

**Re-Training & Incentives for Staff Requirements:**

Administrative Staff:

A Director will need to be identified for the Center preferably from amongst the staff of the more senior nurses at Baalbeck Hospital. To make the salary of the Director compatible with those of other HC Directors, the amount of USD 200/ month should be paid. Hence, the cost of **Director** will be  
= **USD 2,400/ year**

Medical Staff:

Physicians: Assuming one full-time equivalent Pediatrician, one full-time equivalent ObGyn Specialist, and one full-time equivalent Dentist, then a supplement of USD 200/ month will need to be made available for each Specialty to be divided among the physicians pro rata. Hence, the cost of **Specialists** will be USD 200 x 3 = USD 600/ month  
= **USD 7,200/ year**

Midwives: In the absence of a trained nurse, the Center will have to rely on the services of the two available Midwives. A supplementary payment of USD 100/ month could be made to each Midwife, such that the cost of **Midwives**  
= **USD 2,400/ year**

Nurse-Aides: A supplementary payment of USD 50/ month could be made to the 2 **Nurse-Aides**  
= **USD 1,200/ year**

Cleaner: A supplementary payment of USD 30/ month could be made to the **Cleaner**  
= **USD 360/ year**

**Sub-Total 8: Incentives BMCH = USD 13,560**

**TOTAL PERSONNEL COST**

**Four Health Centers: Sub-Total 1 + Sub-Total 2 + Sub-Total 3 + Sub-Total 4 =  
USD 55,800 per Center per Year**

**HRH Health Center: Sub-Total 5 + Sub-Total 6 = USD 24,000 per Year**

**BMCH Health Center: Sub-Total 7 + Sub-Total 8 = USD 20,760 per Year**

2. Medical Supplies:

A. Medicines:

As all essential PHC and chronic illness medicines, as well as vaccines are to be made available through the normal channels of the Ministry of Public Health, no extra cost for medicines and drug supplies will be assumed here.

B. X-ray film and development chemicals:

Four Kuwaiti-built Centers and HRH Health Center

Assuming a load of around 250 cases per month, the cost of film and chemicals, would result in an operating **cost for X-ray Services** of approximately = **USD 15,000 per Center per year for the first year.**

With the rise in the expected load during the second year of operation to 300 per month, the **cost of X-ray Services** is expected to rise to approximately = **USD 18,000 per year for the second year.**

BMCH Health Center

As the BMCH Health Center is a much smaller facility offering a limited range of services (i.e., MCH and dentistry) the case load requiring X-ray services is expected to be much lower than the other facilities which cater to the general population. Assuming that BMCH Center will be receiving one-third the case load of other Centers, this would result in the following:

Assuming a load of around 75 cases per month, the cost of film and chemicals, would result in an operating **cost for X-ray Services** of approximately = **USD 4,500 per year for the first year.**

With the rise in the expected load during the second year of operation to 90 per month, the **cost of X-ray Services** is expected to rise to approximately = **USD 5,400 per year for the second year.**

C. Lab reagents and kits:

Four Kuwaiti-built Centers and HRH Health Center

Based on an estimated load of around 500 tests per month, the **cost of reagents** and ready testing **kits** is expected to be approximately = **USD 18,000 per Center per year for the first year.**

With the rise in the expected load during the second year of operation to around 600 tests per month, the **cost of reagents** and ready testing **kits** is expected to be approximately = **USD 20,000 per Center per year for the second year.**

#### BMCH Health Center

As the BMCH Health Center is a much smaller facility offering a limited range of services (i.e., MCH and dentistry) the case load requiring X-ray services is expected to be much lower than the other facilities which cater to the general population. Assuming that BMCH Center will be receiving 40 per cent of the case load of other Centers, this would result in the following:

Based on an estimated load of around 200 tests per month, the **cost of reagents** and ready testing **kits** is expected to be approximately = **USD 7,200 per Center per year for the first year.**

With the rise in the expected load during the second year of operation to around 240 tests per month, the **cost of reagents** and ready testing **kits** is expected to be approximately = **USD 8,000 per Center per year for the second year.**

D. Other supplies: Gauze, cotton, alcohol, etc..

An estimate was made by "Secours Populaire Libanais" in December 1993 that such medical supplies would have a total cost of 5,000 \$. Assuming a 20% increase in price since then, **the cost of other medical supplies** can be estimated at **USDollars 6,000 per year.**

#### 3. Non-Medical Supplies

Drawing on an estimate was made by "Secours Populaire Libanais" in December 1993, the following costs have been derived:

#### Four Kuwaiti-built Centers and HRH Health Center

1. Stationary/ Medical Records	4,000 \$	
2. Telephone	1,000 \$	
3. Water & Electricity	1,000 \$	
4. Cleaning & disinfecting materials		750 \$
5. Maintenance & fuel	8,000 \$	
6. Miscellaneous items	<u>8,000 \$</u>	
<b>Total</b>	<b>22,750 \$</b>	

**The cost of non-medical supplies = USD 22, 750 per Center per year.**

#### BMCH Health Center

1. Stationary/ Medical Records	3,000 \$
--------------------------------	----------

2. Telephone	500 \$	
3. Water & Electricity	700 \$	
4. Cleaning & disinfecting materials		500 \$
5. Maintenance & fuel	5,000 \$	
6. Miscellaneous items	<u>5,000 \$</u>	
<b>Total</b>	<b>14,700 \$</b>	

**The cost of non-medical supplies = USD 14,700 per year.**

**TOTAL COST**

Based on the above the total cost for running the five Health Centers is estimated as follows:

Running Costs for each of the Four Kuwaiti-built health Centers:

**YEAR 1**

<b>Personnel</b>	<b>58,800 \$</b>	
<b>X-ray Supplies</b>	<b>15,000 \$</b>	
<b>Lab Supplies</b>	<b>18,000 \$</b>	
<b>Medical Supplies</b>	<b>6,000 \$</b>	
<b>Non-medical supplies</b>	<b>22,750 \$</b>	
<b>TOTAL</b>	<b>120,550 \$</b>	

**YEAR 2**

<b>Personnel</b>	<b>58,800 \$</b>	
<b>X-ray Supplies</b>	<b>18,000 \$</b>	
<b>Lab Supplies</b>	<b>20,000 \$</b>	
<b>Medical Supplies</b>	<b>6,000 \$</b>	
<b>Non-medical supplies</b>	<b>22,750 \$</b>	
<b>TOTAL</b>	<b>125,550 \$</b>	

Running Costs for HRH Health Center:

**YEAR 1**

<b>Personnel</b>	<b>24,000 \$</b>	
<b>X-ray Supplies</b>	<b>15,000 \$</b>	
<b>Lab Supplies</b>	<b>18,000 \$</b>	
<b>Medical Supplies</b>	<b>6,000 \$</b>	
<b>Non-Medical Supplies</b>	<b>22,750 \$</b>	
<b>TOTAL</b>	<b>85,750 \$</b>	

**YEAR 2**

<b>Personnel</b>	<b>24,000 \$</b>	
<b>X-ray Supplies</b>	<b>18,000 \$</b>	
<b>Lab Supplies</b>	<b>20,000 \$</b>	

Medical Supplies	6,000 \$
Non-Medical Supplies	<u>22,750 \$</u>
TOTAL	90,750 \$

Running Costs for BMCH Health Center:

YEAR 1

Personnel	20,760 \$
X-ray Supplies	4,500 \$
Lab Supplies	7,200 \$
Medical Supplies	4,000 \$
Non-Medical Supplies	<u>14,700 \$</u>
TOTAL	51,160 \$

YEAR 2

Personnel	20,760 \$
X-ray Supplies	5,400 \$
Lab Supplies	8,000 \$
Medical Supplies	4,000 \$
Non-Medical Supplies	<u>14,700 \$</u>
TOTAL	52,860 \$

The foregoing would result in a total cost for the six Health Centers for Year 1 of :

$$\text{USD } 120,550/\text{Center}/\text{year} \times 4 \text{ Centers} = \text{USD } 482,200/\text{year}$$
$$+ \text{USD } 85,750/\text{year} + \text{USD } 51,160/\text{year} =$$

**USD 619,110/year for Year 1**

and a total cost for the five Centers for Year 2 of:

$$\text{USD } 125,550/\text{Center}/\text{year} \times 4 \text{ Centers} = 502,200/\text{year}$$
$$+ \text{USD } 90,750/\text{year} + \text{USD } 52,860 =$$

**USD 645,810/year for Year 2**

**Which brings the total estimated running budget for the six Centers for the two year duration of the Project to: USD 1,264,920.**

## Cost of Support to Hermel Rural Hospital

The main support to Hermel Rural Hospital through this project is in the form of salaries for recruitment of essential personnel, and in the form of salary incentives for certain existing personnel.

The following categories of personnel have been identified as essential for the functioning of Hermel Rural Hospital to enable it to play its role as a secondary referral center to support PHC efforts in the area:

Anesthesia:

**Anesthesiologist:** As it has proven extremely difficult to recruit a full-time anesthesiologist for the hospital in Hermel, it is suggested that one be found and contracted on a retainer fee basis, such that s/he is available for referral, supervision, and difficult cases. Such an arrangement will require a flat fee  
**= USD 5,000/ year**

**Anesthesiology Technician:** An Anesthesiology Technician will be recruited on a full-time basis, such that they work under the supervision of the Anesthesiologist. The cost is estimated to be USD 400/ month, which would result in  
**= USD 4,800/ year**

Radiology:

**Radiologist:** The recruitment of a full-time Radiologist for the hospital in Hermel has also proven extremely difficult. The same form of retainer contract agreement is also suggested for the services of a Radiologist at a cost of  
**= USD 4,500/ year**

**Radiology Technician:** A Radiology Technician will be recruited on a full-time basis, and will be closely supervised by the Radiologist on a fixed schedule to be agreed. The cost is estimated to be USD 300/ month, which would result in  
**= USD 3,600/ year**

Nurse BT:

Two additional **BT Nurses** will need to be recruited to support the increased load of the hospital at a cost of USD 400/ month each  
**= USD 9,600/ year**

Midwives:

Two additional **Midwives** will need to be recruited to work at the Hospital at a cost of USD 400/ month each  
**= USD 9,600**

**Drivers:**

Two drivers are needed to operate the ambulances available at Hermel Rural Hospital. The Hospital already has one driver on staff and an additional one will need to be recruited. The cost of the **new Driver** is USD 300/ month  
= **USD 3,600/ year**

While the salary of the **existing Driver** will need to be supplemented by USD 100/ month  
= **USD 1,200/ year**

**Total Personnel Cost for Hermel Rural Hospital**

<b>Title</b>	<b>Cost/ year</b>	<b>Cost/ 2 years</b>
Anesthesiologist	5,000 \$	10,000 \$
Anesth. Tech.	4,800 \$	9,600 \$
Radiologist	4,500 \$	9,000 \$
Radiology Tech.	3,600 \$	7,200 \$
Nurse BT (2)	9,600 \$	19,200 \$
Midwives (2)	9,600 \$	19,200 \$
Drivers (2)	4,800 \$	9,600 \$
<b>Total</b>	<b>41,900 \$</b>	<b>83,800 \$</b>

The total funding needed to support the running of Hermel Rural Hospital in order to enable it to receive referred patients as a secondary care center is USD 83,800 over the two year period.

This brings the total funding required for the six Health Centers and Hermel Rural Hospital to USD 1,348,720 over the two year period.



## V. SOURCES OF FINANCING

Given the need to make these Centers functional in an area which suffers from the lack of good quality affordable health services; given the inability of the Ministry of Public Health at the present time to recruit staff for the new Health Centers; and given the relative facilitation that can be attained through administration by the UNDP IRDP, a Joint MoPH/ IRDP Project for the running of the six health centers, including support for Hermel Rural Hospital, would appear to offer a workable solution. Such a Joint Project would be based on the overall management and responsibility of the health Centers resting firmly within the Ministry of Public Health, while day-to-day facilitation and administration is carried out through the IRDP.

Assuming the total cost for the six Centers (*Irsal, Nabi Sheet, Deir el-Ahmar, Shmistar, Hermel, & Baalbeck*) and support of Hermel Rural Hospital to be USD 1,348,720 for two years, and taking into account the following:

1. The limited budget available to UNDP IRDP, a total of USD 535,000 for all health related activities over a period of two years. IRDP is able to devote USD 200,000 of the total health sector budget to the running of the Centers over the two year period.
2. The need to keep the cost to the already impoverished populations of Baalbeck and Hermel to a minimum, at least initially, such that any fees generated from services do not in any way act to hamper access to services. A suggested fee schedule (attached) has been developed for services in the Health centers, based on the fee schedule currently being discussed at the Ministry of Public Health, and undercutting the majority of the fees by between 25-50%. This would make available approximately USD 625,000 over the period of two years (See Annex A, attached).
3. The commitment of the Council for Development and Rehabilitation (CDR) to support the running of the Centers within the overall framework of its role as the National Counterpart to the IRDP, and from within the existing overall Government contribution to IRDP. CDR are able to make available USD 250,000 over the period of two years.
4. The Ministry of Public Health's commitment to supply medicines, provide running costs, and contribute to salaries, as per official communication from Director General.

The adoption of the above would result in the following:

Available funds from fees for services, IRDP and CDR = USD 1,075,000 for two years

**This results in the need to provide the supplementary funding through the Ministry of Public Health of approximately USD 273,720 (or USD 300,000 accounting for revenues lower than expected) over the two year period.**

## ANNEX A

### SUGGESTED FEES FOR SERVICES IN BAALBECK AND HERMEL PHC CENTERS

To insure a degree of continuity, sustainability, and quality of care in health centers, in particular the four new health centers in the Baalbeck area, and in the Hermel Rural Hospital Health Center, a fee should be charged to the targeted population in exchange for the medical and health services and care they receive at the centers.

As, however, the area of Baalbeck-Hermel is considered one of the more disadvantaged in the country it is foreseen that fees are kept to a minimum, with clear provision for fee waiver in case of extreme poverty. This should be especially true during the first year of operation of the Centers where the aim is to encourage as many users as possible to turn to these facilities and to introduce the fee-for-services in as smooth a manner as possible. As such a set of minimum fees is suggested below.

#### SUGGESTED FEES

The Ministry of Public Health is currently in the process of passing a "decree" allowing Public Health Care Centers to charge users a nominal fee for services offered. A fee schedule, intended to be used as a "price ceiling" is being finalized to act as a guidelines for Centers intending to charge a fee. This fee schedule, which appears in the main document, was used to generate the following potential revenues from the six Health Centers:

#### POTENTIAL REVENUE

The following figures assume that all patients will be charged the suggested fees.

##### Consultations:

Assuming a load of 300 patients per month (3,600/year), the total expected revenue from consultations would be:

$$\text{LL } 5,000 \times 3,600 = \text{LL } 18,000,000 = \text{USD } 12,000 \text{ per Center per Year.}$$

##### X-ray Services:

Assuming a load of 250 cases per month (3,000/year), and a fee of LL 8,000 per X-ray, the total expected revenue from X-ray services would be:

$$\text{LL } 8,000 \times 3,000 = \text{LL } 24,000,000 = \text{USD } 16,000 \text{ per Center per Year (Year 1)}$$

This would rise in the second year to:

$$\text{LL } 8,000 \times 3,600 = \text{LL } 28,800,000 = \text{USD } 19,200 \text{ per Center per Year (Year 2)}$$

##### Laboratory Services:

Assuming a load of 500 tests per month (6,000/year), and an average fee of LL 5,000 per test, the total expected revenue from Lab services would be:

$$\text{LL } 5,000 \times 6,000 = \text{LL } 30,000,000 = \text{USD } 20,000 \text{ per Center per Year (Year 1)}$$

This would rise in the second year to:

LL 5,000 x 7,200 = LL 36,000,000 = **USD 24,000 per Center per Year (Year 2)**

Ultra-Sound Services:

Assuming a load of 25 cases per month (300/year), and a fee of LL 10,000 per case, the total expected revenue from Ultra-Sound services would be:

LL 10,000 x 300 = LL 3,000,000 = **USD 2,000 per Center per Year.**

EKG:

Assuming a load of 25 cases per month (300/year), and a fee of LL 1,500 per case, the total expected revenue from EKGs would be:

LL 1,500 x 300 = LL 450,000 = **USD 300 per Center per Year.**

Dentistry:

Assuming a load of 90 cases per month (1080/year), of which 75% require simple procedures, while 25% require more complex procedures, and the corresponding fees of LL 3,000 and LL 6,000 respectively, the total expected revenue from Dental services would be:

LL 3,000 x 810 = LL 2,430,000 = USD 1,620, plus

LL 6,000 x 270 = LL 1,620,000 = USD 1,080, resulting in a total of:

**USD 2,700 per Center per Year.**

**TOTAL EXPECTED REVENUE FROM THE HEALTH CENTERS OF 'IRSAI, SHMISTAR, NABI SHEET, DEIR EL-AHMAR AND HERMEL OVER TWO YEARS**

	Per Center/ Year (Yr1)	Per Center/ Year (Yr2)	Per 5 Centers/ 2 Years
1. Consultations	12,000 \$	12,000 \$	120,000 \$
2. X-ray Services	16,000 \$	19,200 \$	176,000 \$
3. Lab Services	20,000 \$	24,000 \$	220,000 \$
4. Ultra-Sound Services	2,000 \$	2,000 \$	20,000 \$
5. EKG	300 \$	300 \$	3,000 \$
6. Dentistry Services	2,700 \$	2,700 \$	27,000 \$
<b>TOTAL</b>	<b>53,000 \$</b>	<b>60,200 \$</b>	<b>566,000 \$</b>

**BAALBECK MATERNAL AND CHILD HEALTH CENTER**

As the BMCH Center is an established Center with an established catchment population, and upon a review of current patient loads, the expected load of patients and consultations is assumed to be as high as that of the new Centers, for both MCH services and dentistry services. This would generate the following revenues:

Consultations:

Assuming a load of 300 patients per month (3,600/year), the total expected revenue from consultations would be:

LL 5,000 x 3,600 = LL 18,000,000 = **USD 12,000 per Year.**

X-ray Services:

Assuming a load of 75 cases per month (900/year), and a fee of LL 8,000 per X-ray, the total expected revenue from X-ray services would be:

LL 8,000 x 900 = LL 7,200,000 = **USD 4,800 per Year (Year 1)**

This would rise in the second year to:

LL 8,000 x 1,080 = LL 8,640,000 = **USD 5,760 per Year (Year 2)**

Laboratory Services:

Assuming a load of 200 tests per month (2,400/year), and an average fee of LL 5,000 per test, the total expected revenue from Lab services would be:

LL 5,000 x 2,400 = LL 12,000,000 = **USD 8,000 per Year (Year 1)**

This would rise in the second year to:

LL 5,000 x 2,880 = LL 14,400,000 = **USD 9,600 per Year (Year 2)**

Ultra-Sound Services:

Assuming a load of 12 cases per month (144/year), and a fee of LL 10,000 per case, the total expected revenue from Ultra-Sound services would be:

LL 10,000 x 144 = LL 1,440,000 = **USD 960 per Year.**

Dentistry:

Assuming a load of 90 cases per month (1,080/year), of which 75% require simple procedures, while 25% require more complex procedures, and the corresponding fees of LL 3,000 and LL 6,000 respectively, the total expected revenue from Dental services would be:

LL 3,000 x 810 = LL 2,430,000 = USD 1,620, plus

LL 6,000 x 270 = LL 1,620,000 = USD 1,080, resulting in a total of:

**USD 2,700 per Center per Year.**

**TOTAL EXPECTED REVENUE FROM BAALBECK MCH HEALTH CENTER**

	<b>Year 1</b>	<b>Year 2</b>	<b>Per 2 Years</b>
1. Consultations	12,000 \$	12,000 \$	24,000 \$
2. X-ray Services	4,800 \$	5,760 \$	10,560 \$
3. Lab Services	8,000 \$	9,600 \$	17,600 \$
4. Ultra-Sound Services	960 \$	960 \$	1,920 \$
5. Dentistry Services	2,700 \$	2,700 \$	5,400 \$
<b>TOTAL</b>	<b>28,460 \$</b>	<b>31,020 \$</b>	<b>59,480 \$</b>

Which brings the total expected revenue from the six Health Centers in the Baalbeck and Hermel region to **USD 625,480.**