

**EQUIPMENT UTILIZATION
REVIEW STUDY
IN REPRODUCTIVE HEALTH SETTINGS**

2002

Study Conducted by

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Forward

During the 2000-2002 period, the United Nations Population Fund (UNFPA) supported the Government of Lebanon, through the Ministry of Public Health and the Ministry of Social Affairs, in the undertaking of several studies related to Reproductive Health in Lebanon, covering situation analysis, needs assessment and socio-cultural research. This publication represents one of the following eight studies:

- Review of Reproductive Health Concepts in Medical and Paramedical curricula in Lebanon. 2000
- Mapping of Primary Health Care Centers in Lebanon. 2000
- Review of Reproductive Health Research in Lebanon. 2000-2002
- Situation Analysis of Reproductive Health in Lebanon. 2001
- Information, Education, and Communication Priorities in Reproductive Health in Lebanon. 2001
- Clients' Perception of Reproductive Health Services Provided in Selected Clinics in Lebanon. 2001
- Situation Analysis on Occupational Hazards and their Impact on Reproductive Health in Lebanon: A Survey for Policy Development. 2001
- Equipment Utilization Review Study in Reproductive Health Settings. 2002

The aim of these studies is to make available substantive information and data on the current situation in reproductive health at the levels of services, human resources, awareness and information dissemination, commodities, clients' satisfaction, research, and policy development. The findings and recommendations of these studies constitute key inputs to address needs and gaps, to improve the quality of services and of information, and to formulate policies and strategies.

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Yves de San
UNFPA Representative, Lebanon
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Note: The views and opinions expressed in these reports are those of the authors and institutions, and do not necessarily reflect those of the United Nations Population Fund (UNFPA) and/or relevant funding, implementing and executing partners.

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List of Acronyms

EUP.....	Equipment User Profile
EPM.....	Equipment Profile & Management
FP.....	Family Planning
FPP.....	Facility Physical Profile
GCP.....	General Center [Facility] Profile
Gyn.....	Gynechology
IUD.....	Intra Uterine Device
RH.....	Reproductive Health
MOPH.....	Ministry of Public Health
MOSA.....	Ministry of Social Affairs
NGOs.....	Non Governmental Organizations
Ob.....	Obstetric
PHC.....	Primary Health Care
UNFPA.....	United Nations Population Fund
US.....	United States

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I. Overview

There is increasing interest in assessing the materials management as a strategy of enhancing the effectiveness of service delivery in reproductive health. The United Nations Population Fund (UNFPA) policy regarding commodities is an illustration of such interest. The ultimate goal of the study is to assess one dimension of the UNFPA objective to integrate reproductive health into the PHC system through providing basic medical equipment and supplies. The site is Lebanon and the projects are P01 for the Ministry of Social Affairs (MOSA) and P02 component for the Ministry of Public Health (MOPH).

Several literature tracks have been sought to provide the knowledge context for this study.

First the literature on material resource management which provides a background of administrative aspects that pertain to study equipment as material resources. Second, the literature on technology assessment is sought because of the evaluation / review aspect of the study and because the equipment are reproductive health technologies in their own right. Third, the literature on quality improvement is sought because the reason for being of this study is to improve quality of care in the practice of reproductive health equipment utilization. A fourth line of literature is situational analysis that focuses on a research methodology that takes into consideration the importance of context in formulating the study design which is a concern of this study. Finally, there is the literature on material resource management related to reproductive health which is focused on contraceptives (DHHS, CDC) but provides some insight that pertain to the purposes of this study (namely the practical managerial guide).

All in all there is a reasonably effective utilization of equipment provided given the context. The equipment distributed and is being used in almost all centers and the high tech needs updating. Findings from field visits and informal interaction with staff of centers revealed the importance of facility related factors in the effectiveness of utilization of equipment. Negative factors include - lack of resources available for preventive maintenance, lack of staff or loss of staff. Positive factors include appreciation of the value of equipment and dedication to preserving it and using it to the maximum, awareness of latest advances especially in ultrasonography and interest in upgrading existing equipment.

This review consists of several sections: goals, objectives, methods, results, discussion, limitations, and recommendations. There is a reference/ bibliography section. In addition, appendices include tables and figures as well as survey instruments.

II. Goal & Objectives

The goal of this review is to assess one dimension of the objective to integrate reproductive health into the Primary Health Care (PHC) system through providing basic medical equipment and supplies. (proposed programme paragraph 11 in www.unfpa.org.lb)

The following are the objectives:

- To present P01, P02 Equipment Profile
- To describe equipment utilization patterns (safety, and risk prevention aspects of equipment utilization and use of equipment within standard clinical indications)
- To determine determinants of effective utilization of equipment
- To examine the relationship between equipment vs. patient workload
- To examine the relationship between equipment and scope of services
- To identify unmet needs
- To identify performance indicators pertaining to equipment utilization to be used in future work.
- To explore potential impact of equipment on performance of centers

III. Methods

Several strategies were adopted in this review in order to cover the multiple dimensions involved. Three perspectives were adopted: a preliminary field observation, self administered questionnaires and site visits during data collection that included inspection and informal conversation with personnel.

Preliminary field visits and lessons learned

Field visits were conducted with the MOPH RH coordinators covering MOPH, MOSA centers and NGOs across Lebanese governorates. The objective was to collect insight useful for preparing questionnaires that pertain to issues of relevance of field practitioners. Visits included inspection and informal conversation with personnel.

Trends of units of reproductive health services in centers using echography

Trends of reproductive health units of services were constructed for 6 centers in 4 governorates. The purpose of constructing those trends was to look into change in workload in the period following the provision of ultrasonography. In absence of a baseline study and of controls for the same period, it is not feasible to determine in a relative objective manner the impact of ultrasonography.

These units of services were the sum total of reported activities pertaining to reproductive health that were available from reports. These data are to be considered estimates in view of the variation of the report formats through the years, as well as variation in recording practices which could not be gauged given the passage of time.

Scatter diagram format was used to display the data. Such method was considered to be robust enough to provide an overall picture taking into account missing data in some centers. Trend lines were constructed to provide a visual estimate of the direction of the trend.

The detailed survey instruments

The objective was to obtain a more detailed view that related directly to the objectives of the review. These instruments consisted of four questionnaires: the equipment user profile (EUP), equipment management profile (EMP), general center profile (GCP) and facility physical profile (FPP). Such a perspective oriented approach was deemed essential in view of

the influence of institutional context in the utilization of RH equipment. (For copies of the instruments see appendix) These instrument were presented in Arabic and were self administered by directors of centers or persons delegated by the directors of centers.

The sample in the detailed field survey consisted of ambulatory/ development services/OPD in government hospitals. The sample was selected in consultation with MOSA and MOPH to reflect centers which received equipment and those with RH activities, and those in vulnerable areas. Following field visits, the sample was almost exclusively government centers because most of the equipment distributed was distributed to the public sector. Another reason is the large organizational size of the public sector thus rendering the impact of its services affecting a larger segment of the population.

IV. Results

IV.1. Trends of Workload of Reproductive Health Centers that Received Obstetric Ultrasonography Machines (echos) from the Programme

The increasing trend of reproductive health units of service reflects increasing demand. Availability of obstetric ultrasonography may have been a factor that enhanced the increased demand, but this cannot be inferred solely from inspection of those trends. Other factors may have played a role namely increase in population size, increase in level of awareness of women, or increase in outreach activities on the part of the centers, or the impact of the use of other equipment provided by RH program. Other evidence obtained from conversations with directors of centers, with staff – nursing and physicians indicated the crucial importance of obstetric ultrasonography in the functioning and credibility of centers providing reproductive health services. Women ask about ultrasonography. Anecdotal evidence indicates that women are aware of its presence and its advantages regardless of their level of education. Evidence from the literature on utilization of prenatal care services associates ultrasonography with the intensive pattern of utilization of prenatal services among women in the U.S. (Kogan et al, 1998)

The trend data are considered informative in illustrating that centers that are receiving equipment from the RH programs are thriving.

IV.2. Informal Interviews with Personnel

The following are results from informal conversations with staff and directors of 52 MOSA, MOPH, and NGO run centers in 6 Mouhafaza regarding equipment utilization during data collection. The following themes and issues were identified:

Need for an accountable system of installation of newly acquired equipment.

In one of the centers the adult balance was found to be missing one of its parts so it was essentially dumped.

Need for a system of maintenance of equipment.

A system of preventive /curative maintenance is needed. Some centers are familiar with such a system through their photocopiers. One center only reported that they are in touch with an engineer for maintenance of medical equipment when needed.

Issues with certain equipment.

Issues with equipment were voiced more eloquently through verbal conversation compared to written statements. Such a topic in my view is too sensitive to be written especially if the equipment are received as a donation.

Refrigerators.

Most of the comments made verbally were negative due to the fact that the refrigerators which did not have an ice maker consequently don't have the capability to adapt to electricity cuts which are frequent in the centers. In some centers staff take the medicines home, in others they use an older refrigerator and the one given by the program is kept for water. One of the centers has an old refrigerator and the one provided by the program, they are treated as if they have two refrigerators for medical use. In one of the centers I saw a gas operated refrigerator brought on a temporary basis to the center. The refrigerator was deemed to be functional by the staff.

Pediatric String Balances.

These balances were simply put aside in most centers visited. One of the reasons were that people are more used to the center based pediatric balances. Another center the staff complained that such balances are dangerous for babies who move a lot. Others said that these were more suitable for weighing newborns following home deliveries.

Cars.

Cars are a rare commodity in centers whose mission is primary care and community development ¹MOSA centers whose target population include a significant area surrounding the centers in areas such as when asked about the car commented on its importance to accessing populations. One MOSA center that has a car was doing wonders with it giving a new concept to vocational training – the mobile vocational training unit. Other centers without cars use their own cars or synchronize with NGOs who have cars to go to the more remote areas while they cover the area closer to the center.

Cars provided by the program to the central administration are doing their job in insuring communication. The next step is to plan to equip centers on the ground with cars.

Availability of Staff.

Equipment utilization is dependent first and foremost on the staff. One of the centers received equipment before the staff arrived. In others they are suffering from a lag period of loss of obgyn specialists because of administrative constraints or because of turn over. In one center the whole reproductive health program was disrupted because of an administrative regulation. In some centers gender issues play a role, when there is a female obgyn specialists, more women utilize the service, when she leaves the number of utilizers declines.

Ultrasonography.

In general physicians were OK with the obstetric ultrasound. Centers that had ultrasound were grateful. However, some physicians commented negatively on the linear probe preferring the convex one. One physician argued that the linear probe is most useful in the early stages of pregnancy and does not give reliable results in later stages of pregnancy. They requested the convex probe. One physician argued the need for a cardiac probe since the instrument is there in the clinic so that it would be used most efficiently. Some used the ultrasound for diagnostic purposes other than obstetric. In one center the director alluded to the advancement of ultrasonography that relate to breast cancer screening.

Many of the centers had an electricity regulator attached to the ultrasound to avoid the negative effect of fluctuation in electrical current. Most of them promptly plugged of the instrument after each use.

¹ Table EOM3 illustrates the situation

IV.3. Results of the Detailed Survey

The following paragraphs and tables contain a summary of results from 4 questionnaires: the equipment user profile, the equipment management profile, general facility profile and the building profile questionnaires.

IV.3.a. Results Pertaining to General Center Profile

Most of the centers are urban with concentration in small towns across the 6 governorates in Lebanon. The dates of establishment ranged from 1959 to 2000. Approximately one third was established prior to 1975 (the cut-off date marking the beginning of the civil war) and another third was established after 1990 which marks the end of the civil war. The rest of the centers were established during the civil war. The majority of the centers included in the sample did not suffer from interruption of services but 16 (out of 55) suffered .

Duration of interruption of work of centers after establishment (in months) ranged from 1 – 196 months. Median interruption of work was 72 months.

The war was the most frequently mentioned reason for the interruption of services.

Most of the centers are rented. Only 13 of them are originally government property.

There is a consensus among centers about the target groups mentioned in the questionnaire and there was an overlap between beneficiaries and the target population.

Centers mostly mentioned the neighborhood as the target area which was reverberated in the distribution of beneficiaries.

There was a broad range of services reported by the centers visited. The most frequently mentioned were general practice, RH specialties and dispensing of essential drugs followed by activities with community.

The most frequently mentioned RH services were family planning and RH education and counseling.

The flow of RH related essential drugs was considered to be intermittent by almost half of the centers whereas the flow of Family Planning (FP) devices and supplies was considered to be regular by most of the centers. (for more detailed information about the preceding paragraphs in this section see tables GCP 1- 15 in the appendix).

Few storage supervisors and maintenance technicians were reported as working in the centers (a total of 8 3 of whom were storage supervisors and 5 were staff handling storage supervision). (see table GCP 16 in the appendix).

Twenty four centers reported having maintenance coordinators (see table GCP17 in appendix)

IV.3.b. Results Pertaining to Center's Physical Profile

The main features in centers are the conditions of water and electricity. Water is in general available and in good condition. However, two centers reported unsatisfactory quality of water. As for conditions of electricity one center reported weak current, 14 reported some electricity cuts and 6 centers reported many electricity cuts. (for more details see tables FPP 1-8 in Appendix 6).

IV.3.c. Results Pertaining to Reproductive Health Equipment User Profile

Most of the respondents to the equipment user profile questionnaire were clinical professionals. They were mostly physicians and midwives and nurses (57 out of 67 respondents).

Median Duration of work among all professions was 7 years. Duration of work ranged from a minimum of 1 year to a maximum of 38 years.

Median age of respondents = 42 years (n=24). Ages ranged from 27 to 59 years. 56.7% of respondents were females (n=38), and 40.3% were males (n==27).

Regarding the patterns of utilization of selected equipment, sterilizers had the highest median duration of use followed by IUD insertion kits followed by dopplers and the lowest median duration was that of Echos (see table EUP3 in appendix).

Figure EUP 1

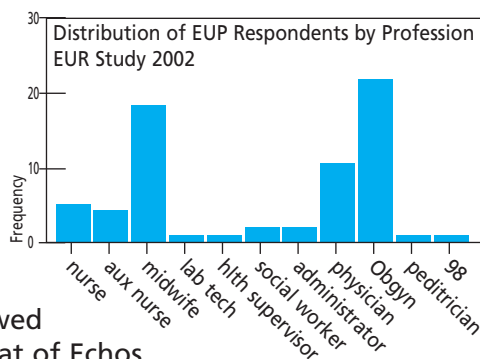


Table EUP 1 – Distribution of Respondents to the Equipment User Profile by Profession

		prof (coded)			
		frequency	percent	valid percent	cumulative percent
Valid	Nurse	5	7.5	7.7	7.7
	Auxiliary nurse	4	6.0	6.2	13.8
	Midwife	17	25.4	26.2	40.0
	Lab technician	1	1.5	1.5	41.5
	Health supervisor	1	1.5	1.5	43.1
	Social worker	2	3.0	3.1	46.2
	Administrator	2	3.0	3.1	49.2
	Physician	11	16.4	16.9	66.2
	Obgyn	20	29.9	30.8	96.9
	Pediatrician	1	1.5	1.5	98.5
	98	1	1.5	1.5	100.0
	Total	65	97.0	100.0	
Missing	System Missing	2	3.0		
	Total	2	3.0		
Total		67	100.0		

Regarding training prior to the use of equipment, slightly more than half of the respondents said yes (table EUP4 in appendix) for the Echo, Doppler, IUD insertion kit and the sterilizer. Most of those who said no attributed their lack of attendance of training to prior professional training.

The frequency of weekly use measure was relatively uniform with the echo and Doppler having slightly higher median weekly use. (See table EUP5 in appendix)

Almost half of the respondents across the board reported being sigle users of equipments (see table EUP6 in appendix).

A majority reported a problem of access to maintenance across equipment (see table EUP 7 in appendix).

A majority reported lack of stand-by equipment. (See table EUP 8 in appendix)

Most respondents reported being satisfied with the equipment. However, a markedly lower proportion was reported for the Echo (See table EUP 9 in appendix).

Logbooks and client records were reported as methods to monitor use of equipment. Lastly, needs for equipment were identified uniformly across the four types of equipments. (See table EUP 10 in appendix).

IV.3.d. Results Pertaining to General Equipment Profile and Management in the Center

This section includes a description of equipment, utilization patterns of echos & dopplers, equipment management – including RH equipment/.

Equipment obtained from the project included office furniture and medical equipment. It is to be noted that several centers had received similar RH relevant equipment from other sources (Compare tables EPM1a and 1b in the appendix). A total of 37 centers reported having no vehicles.

As for utilization patterns of echos, most of echo users were multiple users. Almost half of the centers had echos available whether from the project or else where. A total of 22 respondents reported using logbooks to monitor use of echos.

The median weekly use of echoes was 5 times per week with a minimum of once and a maximum of 40 times per week.

Thirty five centers reported that dopplers are available. The weekly median use of the dopplers was 5 times a week. It ranged from a minimum of one to a maximum of 20 uses per week. There was more single use than multiple use pattern and the log book was the most frequently mentioned method of monitoring the use of the doppler.

Regarding management of general equipment, the process was as follows: requests are mostly prepared for equipment and mostly on the basis of prior report or a needs assessment. The administrator or nurse or physician would prepare the general list. The administrator is the most reported person to follow up.

As for the RH equipment, requests are mostly prepared periodically. They are based on prior report or to a lesser extent on needs assessment. The physician almost always prepares the RH equipment list. Administrators and nursing do the follow-up.

Regarding the storage, the director is mostly reported to receive equipment and supplies and similarly with RH equipment. General and RH lists are primarily archived by directors. Dispensing medical equipment either general or RH is primarily the task of the director according to respondents².

No differences were reported in maintenance procedures of RH and general equipment. The predominant pattern of maintenance is when needed (see table EMP24)

Table EPM 24 - Patterns of Maintenance by selected equipment types

Equipment	Preventive	Occasional Preventive	When Needed
Office Furniture	6	1	46
Examination table	7	1	44
Examination lamp	5	2	44
Ob Gyn Examination Table	6	2	44
Echo Cardiac	3	8	44
Echo ObGyn	3	1	18
Doppler	5	0	28
ER Equipment	0	0	11
Lab Equipment	0	3	3
Radiology Equipment	1	1	6
Dental Equipment	5	2	17
Overhead Projector	3	1	11
Flip Chart	2	1	11

² for more detailed statistical information on the preceding refer to tables EPM 1-23 in appendix

A Note about Inspection of Medical Equipment

In all cases and upon inspection of Obgyn ultrasonography and doppler were covered and the connections were in reasonably good condition. The ultrasound was always covered to protect from the dust and the gel was always next to the instrument.

A Note about Vehicles

The vehicles presented by the program were inspected by the consultant. They are all in good operating condition. However based on conversations with drivers, there is a need for a system of protective maintenance to be factored in. Personal experience, in addition to that of other users of vehicles indicate that vehicles are needed with steps to accommodate the high level of the body of the vehicle. In addition, reporting of a monthly work log of the vehicles need to be documented.

V. Discussion

This is a synthesis of the results presented in the quantitative survey as well as the result of formal and informal interviews with the directors and staff of the majority of centers surveyed in the preliminary part of the study and in the detailed survey.

There was an interest in the survey in its preliminary and detailed components among all parties interviewed public agencies as well as NGOs.

There is evidence of the credibility of respondents in the detailed survey. All questionnaires were presented under the supervision of the director of centers. Most of respondent to users of equipment were physicians, Ob/Gyn specialists and midwives. Many questionnaires were stamped by the center seal which is a direct reference to the official nature of the survey. The seven year median duration of work of respondents to the equipment user questionnaire is another evidence of the credibility of answers in view of the range of experience of respondents.

Moreover, there is qualitative evidence observed by the investigator during field visits relating to distributing questionnaires across the board public agencies and NGOs of a significant level of dedication to public service by professionals working in the centers. Such impressions are obtained from the mere interest in the survey, and from the candid and sincere quality of comments that are provided related to the setting of the community as well as the centers experience in adaptation to varying constraints as well as their visions and aspirations.

Best Practices

- ❑ One center contracted with an echography specialist for better quality care in addition to having the Ob/gyn attend training sessions.
- ❑ One center managed to find a medical maintenance specialist and made a contract with her.
- ❑ One center linked the T.V. located in one floor with the computer located in another floor to transmit health education presentations.
- ❑ One center consolidated the public health services with the hospitalization services and managed to ensure a stand by ultrasound.

- In one public hospital, midwives were accessible to women for informal counselling in afternoons and for referrals thus using the long hours of work of the hospital to the advantage of RH services. This will have a positive impact on turnout of clients and consequently effective use of equipment.

VI. Limitations

The clients' perspective vis-à-vis equipment was not directly sought. The review was primarily concerned with opinions of the users rather than those on which equipment was used. This however, treads into the grounds of quality of care. The other limitation is there needed to be more independent observation time of the flow of work in the centers. This was compensated to a degree by the high degree of transparency on the part of the staff.

This study does not assess impact since no prior baseline work has been attempted. There are always limitations with purposive sampling but what may have compensated was that both ministries MOSA & MOPH were consulted on criteria. However, the results showed consistent patterns especially in the section on management of equipment. It is the view of this investigator that the review was an attempt at systematically over-viewing major issues that were apparent from the first few visits. Further information served to confirm the preliminary conclusions arrived at early on in the study.

VII. Recommendations

Equipment needs

Regarding medical equipment, in general the responding professionals were satisfied with ultrasonography, sterilizers and dopplers received by the program. However, many during informal conversation expressed the need for having a convex probe for the ultrasound for better results.

Another comment related to the training, where the need for a brief written manual with the instrument to alert the Ob/Gyn specialist to the specific features of operation of the commercial brand.

In some clinics sterilizers were judged to be too small given the size of the instruments to be put inside them.

In areas of the periphery – south and north – irrespective of the governance, need was expressed for the echography.

The issue of maintenance

The main issue with use of current equipment especially the high technology items is the maintenance system. There is a need for a preventive maintenance system to be factored in during budgeting for the equipment.

There is a need to have a preventive maintenance system with equipment provided as part of purchasing. Considering local purchasing is one option, another is working with MOPH and MOSA on rehabilitating the existing maintenance systems and procedures.

Distribution of High tech equipment

Hospitals and large centers with long years of operation with either MOSA or MOPH need to be considered as the hubs of high technology equipment and referral centers for centers in the periphery.

Needs Assessment

The role of the Tababat al Qada'a as the local MOPH coordinator of RH activities as well as the role of the MOSA development centers needs to be explored further. Local planning would lend further support to the work of the RH programs in both ministries.

Equipment Installation

There is a need to have a system of accountable installation of equipment to verify operating condition on installation and to avoid having 'monuments'.

Choice of Type of Equipment

Need for more intensive consultation with physicians and health personnel who work in the field regarding the model of equipment to be requested.

- Recommend assessing the cost effectiveness of using gas operated refrigerators given the unreliable electricity supply in terms of quality and quantity in many centers especially those in remote and consequently vulnerable areas.
- Recommend considering purchasing more sophisticated ultrasounds to be placed at high workload, referral centers (accessible by public transportation) covering all governorates.

Vehicles are Needed

Reproductive Health promotion as well as coordination of activities is an essential component that needs community outreach activities.

- Recommend to consider including cars in the request for centers who do community outreach in remote areas given the fact that the existing financial difficulties facing families affect their decision to place priority for transportation for preventive services. The other reason is the success of operating the current batch of cars donated by the UNFPA in facilitating coordination of the RH work by MOPH and MOSA. Contact with centers by RH coordinators has been reflected positively in terms of the positive attitude and morale of staff of centers visited in addition to the timely monitoring of work of the centers and consequently meeting their needs. A third reason is the flexibility of work of centers who already have operational vehicle in implementing innovative community outreach programs, and the difficulty some centers are facing in doing their work because of the lack of a center vehicle.

Performance tools

The following are recommended as tools that monitor performance:

- Documentation of identity & qualification of user
- The frequency of use of high tech equipment weekly, monthly and annual use.
- Frequency and type of maintenance
- Inspection sheet to be filled prior to use of a high tech equipment to attest that it is in good condition prior to use.

The above tools can be put in a master file specific for the equipment which includes date of reception in center.

Two copies (hard or electronic) of the operation file need to be kept in the center – or with the user in charge and another in the general center files.

Recommend that a copy of the master file needs to be present with the RH regional and central program officers.

Indicators of performance

- Frequency of use of instrument – median weekly for short term evaluation, annual to account for seasonal variations.
- Qualification of users (following a preset algorithm e.g. for Ob/Gyn ultrasonography only an Ob/Gyn and ultrasonography expert and a physician with prior training in ultrasonography)
- Maintenance history: type of maintenance (preventive, malfunction) type of malfunction and date of maintenance, and duration of maintenance.

General Organizational factors / Sustainability

Evidence from the general equipment management profile indicates that the system of managing equipment for reproductive health is similar to that adopted for the centers at large (see table EPM23). Therefore, factors affecting the general operation of the center need to be considered.

Need for flexibility in administrative regulations across public agencies when the availability of reproductive health services is at stake: an RH program especially in areas of the periphery should be given priority for sustainability – there is a need for flexibility in current policies regarding working of physicians to ensure continuity of care. Moreover, in peripheral areas the continuity of care by the same provider - as indicated by comments and observations – are of paramount importance. One center of a long standing in the community, stopped its RH activities because of administrative regulations that prevent the physician from working there. There is a need for a system of ‘adjunct’ across public agencies or at least treatment of special cases in order to avoid loss of service to a community in need.

A call for consolidation: The relationship of cooperation between MOPH and MOSA practiced in the P01 and P02 project in reproductive health in particular and in primary health care in general needs to be further consolidated towards a more thorough partnership to ensure a form of organizational consolidation that would result in more efficient as well as effective access and utilization of equipment. This is necessitated by the range of services delivered on the ground by centers of both agencies. Evidence from the survey indicate that both agencies cover both areas of medicine (preventive & curative) as well as community work – the essence of primary health care. Moreover given the fact that the government is the general ‘employer’ in various degrees in each agency there is a potential for achieving such a state of partnership given the fact that both agencies operate under one strategic plan approved by the council of ministers. Such an arrangement would provide incentive for NGOs to follow suit and consolidate and thus achieve a step further in sustainability.

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Appendix 3 – Equipment User Profile – Tables

Appendix 4 – Equipment Profile and Management – Tables

Appendix 5 - General Facility Profile – Tables

Appendix 6 - Facility Physical Profile – Tables

Appendix 1

Distribution of equipment

Table 1a Profile of equipment distributed P01 (MOSA)

Description	Cost	P.O.Date
Overhead projector (1 unit) P.O.NO: LEB/2000/15 Account Code: 3AN-0500-LEB98P01-42.03-000	807.50	4/12/2000
Scanner (1 unit) P.O.NO: LEB/2000/16 Account Code:3AN-0500- LEB98P01-42.03-000	150.0	4/12/2000
Vehicles station wagons (3 units) P.O.NO: TL-F99-9500741 Account Code: 3AN/LEB/98/P01/42-04	(7689.300 yens)	26/10/99
Minibus (1 unit) P.O.NO: TL-F99-9500741 Account Code: 3AN/LEB/98/P01/42-04	(1530.900 yens)	26/10/99
Overhead Projector (1 unit) P.O.NO: LEB/2000/03 Account Code: 3AW-0050-LEB98P02-42.03-000	807.50 USD	10/8/2000
Minolta Camera (1 unit) P.O.NO: LEB/2000/02 Account Code: 3AW-0050-LEB98P02-42.03-000	315.00 USD	10/8/2000
Medical Equipment P.O.NO: TL-F99-9500714 Account Code: 3AN/LEB/98/P01/42-02	56958.72 USD	6/10/99
IUD Insertion kit (as per unipac 99 500 25)	(150 units) 9703.5	
ultrasound scanners (13 units) & video printers (13 units) P.O.NO: TL-F99-9500681 Account Code:3AN/LEB/98/P01/42-02	74,750, 00 USD	27/9/99
Medical Refrigerators for storage of drugs (14 units) P.O.NO: TL-F99-9500785 Account Code:3AN/LEB/98/P01/42-02	25,860.18 USD	9/11/99
AID Equipment P.O.NO: MAH-F99-9500945 Account Code: 3AN/LEB/98/P01/42-03	10,450.00 USD	6/12/99
Audiovisual Equipment P.O.NO: HVR-F01-9500075 Account Code: 3AN/LEB/98/P01/42-03	103,990.72 Danish Krones	5/02/01

Table 1b Profile of equipment distributed P02 (MOPH)

Description	Cost	P.O.Date
Medical Equipment P.O.NO: TL-F00-9501020 Account Code:3AW/LEB/98/P02/42-02	26,050.05 USD	5/2/01
Ultra Sound scanner (4 units) P.O.NO: TL-F01-9501165 Account Code:3AN/Leb/97/P02/42-02 3AW/LEB/98/P02/42-02	18,000 USD	19/3/01
Video Printers (4 units) P.O.NO: TL-F01-9501165 Account Code:3AN/Leb/97/P02/42-02 3AW/LEB/98/P02/42-02	5,000 USD	19/3/01
Medical Items as per attached list P.O.NO:TL-F98-9501052 Account Code: 3AW/LEB/97/P02/42-98	18,996 USD	19/12/98
Equipment as per attached list (2 lots) P.O.NO: TL-F98-9501051 Account Code: 3AW/LEB/97/P02/42-98	94,032.45 USD	19/12/98
Ultrasound Scanners (10 units) P.O.NO: SD-F98-9501070 Account Code: 3AWLEB/97/P02/42-98	45,000.00 USD	22/12/98
Video Printers (10 units) P.O.NO: SD-F98-9501070 Account Code: 3AWLEB/97/P02/42-98	12,500.00 USD	22/12/98
Station Wagons (4 units) P.O.NO:HVR-F98-9500859 Account Code: 3AW/LEB/97/P02/42-04	10,359,700.00 Yens	8/12/98
Water transport and shipping of 4 vehicles P.O.NO:HVR-T98-9540108 Account Code: 3AW/LEB/97/P02/42-04	4,118.46 USD	30/11/98

Appendix 2

Detailed Survey Instruments

Equipment Utilization Review Study

P01/P02 Equipment USER Profile

This questionnaire provides information on:

- Who uses the p01/p02 Doppler, Echo, IUD insertion kit, overhead, flipchart, TV/Video
- Pattern of usage: frequency, duration
- Assessment of the equipment

Date of filling questionnaire: Day | Month | Year

Respondant:	
Name:	<input type="text"/>
Profession:	<input type="text"/>
Occupation:	<input type="text"/>

Background Information			
EUP11	age	<input type="text"/> <input type="text"/>	years <input type="text"/> <input type="text"/>
EUP12	sex	<input type="text"/>	Male 01 female 02
EUP13	profession	<input type="text"/>	Physician 01 Staff Nurse 02 Midwife 03 Practical nurse 04 Health educator 05 other 07
EUP14	Duration of work at facility	<input type="text"/>	Months <input type="text"/> <input type="text"/> Years <input type="text"/> <input type="text"/>

EUP01	Specify Equipment	<input type="text"/>	Doppler 01 Echo 02 IUD insertion kit 03 Speculum 04 Overhead 05 Flipchart 06 TV/Video 07
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Expertise					
EUP04a-c	Did you attend a training session before using the equipment? (excluding TV& video,)	EUP04a	Equipment 1 <input type="text"/> <input type="text"/>	Yes 01 No 02 Not needed 03	EUP05
		EUP04b	Equipment 2 <input type="text"/> <input type="text"/>	Yes 01 No 02 Not needed 03 NA 79	EUP05
		EUP04c	Equipment 3 <input type="text"/> <input type="text"/>	Yes 01 No 02 Not needed 03 NA 79	EUP05
EUP041a-c	If your answer is No in any segment of the	EUP041a	Equipment 1 <input type="text"/> <input type="text"/>	Yes 01 No 02 Not needed 03	

	preceding question, does your prior professional training enable you to use this equipment effectively?	EUP041b	Equipment 2 _ _	Yes No Not needed NA	01 02 03 79
		EUP041c	Equipment 3 _ _	Yes No Not needed NA	01 02 03 79
EUP05a-c		For how long have you been using the equipment?	EUP05a	Equipment 1 _ _	Months Years
		EUP05b	Equipment 2 _ _	Months Years	_ _ _ _
		EUP05c	Equipment 3 _ _	Months Years	_ _ _ _

EUP06a-c	On average, how many times per week have you used this equipment in the past six months?	EUP06a	Equipment 1 _ _	per week	_ _
		EUP06b	Equipment 2 _ _	per week	_ _
		EUP06c	Equipment 3 _ _	per week	_ _
EUP07a-c	Are you the sole user of the equipment?	EUP07a	Equipment 1 _ _	Yes No DK	01 02 89
		EUP07b	Equipment 2 _ _	Yes No DK NA	01 02 89 79
		EUP07c	Equipment 3 _ _	Yes No DK NA	01 02 89 79
EUP08a-c	When there is trouble do you have access to a maintenance professional?	EUP08a	Equipment 1 _ _	Yes No DK	01 02 89
		EUP08b	Equipment 2 _ _	Yes No DK NA	01 02 89 79
		EUP08c	Equipment 3 _ _	Yes No DK NA	01 02 89 79
EUP08a-c	If yes, does the maintenance job take more than one week?	EUP08a	Equipment 1 _ _	Yes No DK	01 02 89
		EUP08b	Equipment 2 _ _	Yes No DK NA	01 05 89 79
		EUP08c	Equipment 3 _ _	Yes No DK NA	01 02 89 79

General Assessment and Needs

	Do you think that Equipment obtained from P01/p02 project technically useful to you?	Yes, No	
	If yes, how useful are they?	Very useful Fairly useful Did not add much	
	In your opinion, to what extent has the equipment obtained from P01/P02 affected the use of services?	To a large extent Fairly Minimal effect	
	What are your needs as a health practitioner in terms of equipment for reproductive health services within your scope of work?		

Thank you for your time

Equipment Utilization Review Study

Facility Wide Equipment Profile and management

This questionnaire provides a description of equipment available and their management, as well as the p01/p02 equipment and their management

Date of filling questionnaire: Day |_|_| Month |_|_| Year |_|_|

Respondant:	
Name:	
Profession:	
Occupation:	

	Equipment available			
EPM01	Medical equipment circle all that apply	Office furniture gen 01 Office furniture gen (P01/P02) 11 general Examination tables 02 general Examination tables (P01/P02) 22 Examination lamps 03 Examination lamps (P01/P02) 33 Gyn examination tables 04 Gyn examination tables(P01/P02) 44 Echo: Cardiac 05 Echo: obs/gyn 06 Echo: obs/gyn (P01/P02) 66 Doppler 07 Doppler (P01/P02) 77 Emergency room medical equipment 08 Basic lab equipment 09 Radiology equipment 10 Dental chair and equipment 11 Roll for examination tables 12 Overhead projector 13 Overhead projector (P01/P02) 313 Flip chart 14 Flip chart (P01/P02) 414 Refrigerators 15 Clinic Autoclave or sterilizer (not for ER or OR) 16 Portable refrigerators/cooling boxes 17 Operating theatre 18 Anaesthesia equipment 19 Other specify: _____ 20 Other (P01/P02) specify: _____ 2020		
	Communication equipment circle all that apply	Telephone line connected to facility 01 No telephone line 02 Cellular 03 other 04		
		No communication equipment		05
	Transport vehicles circle all that apply	Emergency vehicle 01 Ordinary vehicle 02 Station wagon/ four wheeler 03 Not available 04		

Equipment Utilization Pattern			
EPM01	<u>Echo</u>	Yes No DK NR	01 02 89 99
	Multiple users	Yes No DK NR	01 02 89 99
	How do you measure usage?	Log Other specify	
	Estimated usage	Times per week	_ _
	<u>Doppler</u>	Yes No DK NR	01 02 89 99
	Multiple users	Yes No DK NR	01 02 89 99
	How do you measure usage?	Log Other specify	
	Estimated usage	Times per week	_ _

Equipment management			
EPM02	Request: In general, do you make a periodic list of equipment needed?	Yes No DK NR	01 02 89 99
EPM021	For P01/P02 equipment, do you make a periodic list of equipment needed?	Yes No DK NR	01 02 89 99
EPM022	In general, on what basis?	Past Utilization report Estimation of future need Other, specify: _____	01 02 03
EPM023	For P01/P02 equipment, on what basis?	Past Utilization report Estimation of future need Other, specify: _____	01 02 03
EPM024	Who prepares the general list? (circle all that apply)	Pharmacist Administrator Nurse Physician Other: _____	01 02 03 04 05

Equipment Utilization Pattern			
EPM025	Who prepares the RH list? (circle all that apply)	Pharmacist Administrator Nurse Physician Other: _____	01 02 03 04 05
EPM026	Who follows up the general request? (circle all that apply)	Pharmacist Administrator Nurse Physician Other: _____	01 02 03 04 05
EPM027	Who follows up the RH request? (circle all that apply)	Pharmacist Administrator Nurse Physician Other: _____	01 02 03 04 05
EPM03	Storage: Who receives general supplies/ equipment?	Pharmacist Financial Administrator Director Other: _____	01 02 03 04
EPM031	Who receives RH supplies/ equipment?	Pharmacist Financial Administrator Director Other: _____	01 02 03 04
EPM032	How is the list of equipment /supplies filed?	With Pharmacist With Financial Administrator With Director Other: _____	01 02 03 04
EPM033	How is the list of RH equipment /supplies filed?	With Pharmacist With Financial Administrator With Director Other: _____	01 02 03 04
EPM04	Dispensing of medical supplies: Who dispenses medical supplies in general? (circle all that apply)	Pharmacist Financial administrator Assistant administrator Other: _____	01 02 03 04
EPM041	Who dispenses RH medical supplies? (circle all that apply)	Pharmacist Financial administrator Assistant administrator Other: _____	01 02 03 04
EPM042	Maintenance of equipment at facility: Is there a difference between maintenance [attern of RH vs. other equipment in center	Yes No DK NR	01 02 89 99

	For each item below circle what applies		
EPM0431	Office furniture	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM0432	General examination tables	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM0433	Examination lamps	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM0434	Gyn examination tables	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM0435	Echo: Cardiac	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM0436	Echo: obs/gyn	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM0437	Doppler	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM0438	Emergency room medical equipment	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM0439	Basic lab equipment	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM04310	Radiology equipment	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM04311	Dental chair and equipment	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM04312	Overhead projector	Preventive maintenance schedule Occasional preventive When needed	01 02 03
EPM04313	Flip chart	Preventive maintenance schedule Occasional preventive When needed	01 02 03

General Assessment and Needs

	Do you think that Equipment obtained from P01/p02 project technically useful to this facility?	Yes, No	
	If yes, how useful are they	Very useful Fairly useful Did not add much	
	To what extent has the equipment obtained from P01/P02 affected the use of services?	To a large extent Fairly Minimal effect	
	What are your needs as a facility in terms of equipment for reproductive health services?		

Equipment Utilization Review Study

General Facility Profile

The purpose of this questionnaire is to provide a layout of the context in which reproductive health services equipment are utilized. It includes a general view of the facility and a detailed description of RH services. To be filled by Director or by his/her authority

Date of filling questionnaire: Day |_|_| Month |_|_| Year |_|_|

Respondant:	
Name:	
Profession:	
Occupation:	

Contains: Name of center, location, establishment, governance & ownership, target population, population served, range of services, human resources available, material resources, financing, accessibility, & info systems

GCP01	Official Name of Facility: =====	_ _ _ _
	Type:	
	Health Post Health Center Hospital	01 02 03
	Location:	
GCP021	Governorate:	Beirut 01 Mount Lebanon 02 North 03 Nabatiyyeh 04 South 05 Bekaa 06
GCP022	Address:	
GCP023	How do you rate the Urban/rural status?	City 01 Town 02 Peri-urban 03 Rural 04 Remote rural 05
	Establishment:	
GCP031	Date of initial establishment:	Month _ _ , Year _ _
GCP032	Was the work interrupted since initial establishment?	Yes 01 No 02 →GCP035 DK 89 →GCP035 NR 99 →GCP035
GCP033	If yes, for how long?	_ _ months _ _ years
GCP034	If yes, for what reason?	War 01 Maintenance 02 Change of venue 03 Other: specify _____ 04 DK 89 NR 99
GCP035	Date of start of operation in current address	Month _ _ , Year _ _
	Duration of operation (in current address)	_ _ months

Governance			
GCP04		MOH MOSA NGO Other 01	01 02 03 04
Ownership			
GCP05	Duration of operation (in current address)	Rented Bought Donated Gov property (MOH, MOSA) DK NR	01 02 03 04 05 06
Target population			
GCP061	What population group does the center target? (circle all that apply)	The poor Women Elderly Children Youth Working men Families DK NR	01 02 03 04 05 06 07 89 99
GCP062	What area does the center target?	The surrounding community The city/town The governorate DK NR	01 02 03 89 99
Population Served			
GCP071	What population group(s) use(s) the services of the center? (circle all that applies)	The poor Women Elderly Children Youth Working men Families DK NR	01 02 03 04 05 06 07 89 99
GCP072	Where does the group(s) come from? (circle all that applies)	The surrounding community The city/town The governorate DK NR	01 02 03 89 99
Range of services – general			
GCP081	Environmental health	Yes No DK NR	01 02 89 99
GCP082	General medical care	Yes No DK NR	01 02 89 99
GCP083	Specialty care (other than reproductive health)	Yes No DK NR	01 02 89 99
GCP084	Reproductive Health Services (safe motherhood, family planning)	Yes No DK NR	01 02 89 99

GCP085	Dental & oral health	Yes No DK NR	01 02 89 99
GCP086	Dispensing of essential drugs	Yes No DK NR	01 02 89 99
GCP087	General Health education and training	Yes No DK NR	01 02 89 99
GCP088	Laboratory	Yes No DK NR	01 02 89 99
GCP1028	Are there any lab services?	Yes No	01 02 GCP1034
GCP1029	Lab services Inhouse status	Yes No , only samples are taken inhouse	01 02
GCP089	Radiology	Yes No DK NR	01 02 89 99
GCP1034	Is there Radiology service?	Yes No	01 02 end
GCP1035	Inhouse status	Yes No, patient referred to a nearby center	01 02
GCP0810	Home visiting / community outreach activities	Yes No DK NR	01 02 89 99
Range of Reproductive Health services			
GCP091	Prenatal care	Yes No DK NR	01 02 89 99
GCP092	Post natal care	Yes No DK NR	01 02 89 99
GCP093	Delivery	Yes No DK NR	01 02 89 99
GCP094	Family planning	Yes No DK NR	01 02 89 99
GCP095	Reproductive Health education and training	Yes No DK NR	01 02 89 99
GCP096	Laboratory – reproductive health related tests	Yes No DK NR	01 02 89 99
GCP097	Home visiting / community outreach activities in reproductive health	Yes No DK NR	01 02 89 99

Human Resources – general			
Physicians			
GCP10	General physician available	Yes No DK NR	01 02 → GCP104 89 → GCP104 99 → GCP104
	Number available	_ _ physicians	
GCP101	Gender of practitioner(s)	# of females, # of males	_ _ _ _
GCP102	Average working hours per day	hours per day	_ _
GCP103	Average working days per week	days per week	_
GCP104	Dental practice available	Yes No DK NR	01 02 → GCP108 89 → GCP108 99 → GCP108
	Number available	dentists	_ _
	Gender of practitioner(s)	# of females, # of males	_ _ _ _
GCP106	Average working hours per day	hours per day	_ _
GCP107	Average working days per week	days per week	_
GCP108	Obstetrician available	Yes No DK NR	01 02 → GCP1028 89 → GCP1028 99 → GCP1028
GCP109	Gender of practitioner	# of females, # of males	_ _ _ _
GCP1010	Average working hours per day	hours per day	_ _
GCP1011	Average working days per week	days per week	_
GCP1012	Is there a Paediatrician available?	Yes No	01 02 → GCP1028
GCP1013	Gender of practitioner	# of females, # of males	_ _ _ _
GCP1014	Average working hours per day	hours per day	_ _
GCP1015	Average working days per week	days per week	_
GCP1016	Is there another speciality?	Yes No	01 02 → GCP1028
	Kindly specify	_____	
GCP1017	Gender of practitioner	# of females, # of males	_ _ _ _
GCP1018	Average working hours per day	hours per day	_ _
GCP1019	Average working days per week	days per week	_
GCP1020	Is there another speciality?	Yes No	01 02 → GCP1028

	Kindly specify	_____	
GCP1021	Gender of practitioner	# of females, # of males	<input type="text"/> <input type="text"/>
GCP1022	Average working hours per day	hours per day	<input type="text"/>
GCP1023	Average working days per week	days per week	<input type="text"/>
GCP1024	Is there another speciality?	Yes No	01 02 → GCP1028
	Kindly specify	_____	
GCP1025	Gender of practitioner	# of females, # of males	<input type="text"/> <input type="text"/>
GCP1026	Average working hours per day	hours per day	<input type="text"/>
GCP1027	Average working days per week	days per week	<input type="text"/>
Nurses			
	Auxiliary/ Attendant	number	<input type="text"/>
	Gender of practitioner	# of females, # of males	<input type="text"/> <input type="text"/>
	Average working hours per day	hours per day	<input type="text"/>
	Average working days per week	days per week	<input type="text"/>
	Nurse/midwife	number	<input type="text"/>
	Average working hours per day	hours per day	<input type="text"/>
	Average working days per week	days per week	<input type="text"/>
Lab Services			
	Level of training of lab practitioner		
GCP1030	VTC	# VTC Technician Not applicable	<input type="text"/> 98
	University Graduate	# University graduate Not applicable	<input type="text"/> 98
GCP1031	Gender of practitioner	# of females, # of males	<input type="text"/> <input type="text"/>
GCP1032	Average working hours per day	hours per day	<input type="text"/>
GCP1033	Average working days per week	days per week	<input type="text"/>
	Radiology		
	number	Practitioners Not applicable	<input type="text"/> 98
GCP1036	Level of training of radiology practitioner	VTC Technician University graduate	01 02
GCP1037	Gender of radiology practitioner	# of females, # of males	<input type="text"/> <input type="text"/>
GCP1038	Average working hours per day	hours per day	<input type="text"/>
GCP1039	Average working days per week	day per week	<input type="text"/>

Support Staff

GCP1035	<i>Management Officer/ administrative director</i>	Yes No	01 02
	<i>If yes,</i>	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_
GCP1036	<i>Reception</i>	Yes No	01 02
	<i>If yes,</i>	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_
GCP1037	<i>Records</i>	Yes No	01 02
	<i>If yes,</i>	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_
	<i>Supply Clerk</i>	Yes No	01 02
	<i>If yes,</i>	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_
	<i>Maintenance</i>	Yes No	01 02
	<i>If yes,</i>	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_
	<i>Guard</i>	Yes No	01 02
	<i>If yes,</i>	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_
	<i>Driver</i>	Yes No	01 02
	<i>If yes,</i>	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_

Support Staff

	Housekeeping	Yes No	01 02
	If yes,	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_
	Food Preparer	Yes No	01 02
	If yes,	number	_
GCP1038	Average working hours per day	hours per day	_ _
GCP1039	Average working days per week	days per week	_

Thank you for your time

Equipment Utilization Review Study

Facility Physical Profile

The purpose of this instrument is to provide info on the physical context of work that would complement the info generated by the general questionnaire

Date of filling questionnaire: Day |_|_| Month |_|_| Year |_|_|

Respondant:	
Name:	
Profession:	
Occupation:	

FPP01	Number of floors	floors	_ _
FPP02	Number of rooms (excluding bathrooms)	rooms	_ _
FPP03	How many bathrooms?	bathrooms	_ _
FPP04	Does each consultation room have a functional sink?	Yes No No, but we have one near the rooms Not yet, Under repair / construction Not yet, We're planning to have one	01 02 03 04 05
FPP05	Number of entrances	Entrances	_ _
FPP06	Is your facility accessible for individuals with physical disabilities?	Yes No Not yet, under construction Not yet, we're planning	01 02 → FPP07 03 → FPP07 04 → FPP07
FPP061	If yes, specify amenities available (circle all that applies)	Ramps Elevator Ground floor Other	01 02 03 04
FPP07	Do you have a separate room for counseling?	Yes No Not yet, under preparation Not yet, we're planning No, Don't need it we use clinics because there're not used all the time	01 02 03 04 05
FPP08	Do you have a general meeting room?	Yes No No, We use the waiting room	01 02 03
FPP09	How is the electricity?	Few cuts and OK Periodic cut but OK Periodic cuts but weak	01 02 03
FPP10	How is the water supply?	OK We have problems	01 02
FPP11	What is the source of heating? (Circle all that applies)	Electricity Diesel Natural gas	01 02 03

Appendix 3

Equipment User profile EUP tables

Table EUP2 Distribution of Respondents to EUP Questions by Profession

prof (coded)* duration of work (recoded) Crosstabulation

Count	duration of work (recoded)					Total
	between 6 months & 1 year	2-4 years	5-7 years	more than 7 years	NR	
prof (coded)						
Nurse			2	3		5
Auxiliary nurse		1		3		4
Midwife		6	6	6		18
Lab technician			1			1
Health supervisor			1			1
Social worker				2		2
Administrator			1		2	3
Physician	1	3	1	6		11
Obgyn	2	6	4	7	2	21
Pediatrician	1					1
Total	4	16	16	27	4	67

table EUP3 -Summary Measures of Duration of Use of Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Median duration of use (months)	24	36	36	48
Range (min.-max)	3-48	3-48	2-48	24-48
N	14	15	17	3

Table EUP 4 – Attended Training Prior to Use of Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Yes	9	6	9	6
No	8	5	5	5
Did not need	1	18	22	9
N	18	29	36	20

Table EUP 4a In case said no (in table4) Prior Professional Training Enables Effective use of Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
yes	9	13	13	8
No	1	0	3	1
N	10	13	16	9

Table EUP 5 – Summary Measures of Frequency of Weekly Use of Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Median Frequency of use per week	9	13	13	8
Range of weekly use (min.-max)	1	0	3	1
N	10	13	16	9

Table EUP6 - Exclusive Use of Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
yes	7	12	14	8
No	9	13	18	10
N	16	25	32	18

Table EUP7 - Problem of Access to Maintenance by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
yes	11	17	20	5
No	2	5	8	8
N	13	22	28	13

Table EUP8 - availability of Standby Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
yes	2	6	21	10
No	13	20	11	9
N	15	26	32	19

Table EUP 9 – Satisfaction with Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Yes	7	15	23	13
No	6	4	4	1
Yes for now, need to change	3	6	6	4
N	16	25	33	18

Table EUP 10 – Methods of Monitoring Use of Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Log book	7	7	14	3
Client record	10	17	21	1
Other	1	3	4	5
N	18	27	39	9

Table EUP 11 – Needs for Equipment Stated by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Yes	9	14	10	6
No	1	2	1	0
No response	1	5	6	3
N	11	21	17	9

Table EUP 12 – Satisfaction with Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Yes	7	15	23	13
No	6	4	4	1
Yes for now, need to change	3	6	6	4
N	16	25	33	18

Table EUP 13 – Methods of Monitoring Use of Equipment by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Log book	7	7	14	3
Client record	10	17	21	1
Other	1	3	4	5
N	18	27	39	9

Table EUP 14 – Needs for Equipment Stated by Type

	Echo	Doppler	IUD insertion kit	Sterilizer
Yes	9	14	10	6
No	1	2	1	0
No response	1	5	6	3
N	11	21	17	9

Appendix 4 Equipment Profile and Management (EPM) Tables

The following tables display the results obtained covering the range of equipment available in centers and pattern of management of equipment in general and of equipment supplied by the RH program.

Table EPM 1a - Range of Equipment (obtained from other than RH sources) in 58 Centers:

Equipment	Frequency mentioned
Office Furniture	54
Examination table	58
Examination Lamp	38
Examination table obgyn	45
Doppler	26
Refrigerator	42
Echo cardiac	5
Echo obgyn	14
ER equipment	7
OR equipment except anesthesia	3
Anesthesia equip	5
Dental clinic equipment	28
Flip chart	18
Lab equip	6
sterilizer	64
Overhead projector	15
Radiological equip	6
Portable cooler	29
Paper rolls for examin. tables	35
Other equip	2

Table EPM 1b - Range of Equipment obtained from P01/P02 in 56 Centers:

Equipment	Frequency mentioned
Office furniture	7
Examination table	16
Examination table obgyn	30
Examination lamp	25
Echo obgyn	15
Doppler	10
Sterilizer	29
Overhead projector	2
refrigerator	10
Flip Chart	2
Other equipment	11

Table EPM 2 - Communication Equipment Available in centers (more than one option allowed)

Equipment	Frequency mentioned
Phone line	49
Cellular	10
Other	31
no	2

Table EPM 3 - Vehicles Available in centers

Equipment	Frequency mentioned
Ambulance	6
4 door car	5
Station wagon	6
No car available	37
No response	10

Table EPM 4 - Obstetric Ultrasonography available in centers

Equipment	Frequency mentioned
Available	23
Not Available	32
Available but does not work	1

Table EPM 5 - Multiple Users of Obstetric Ultrasonography (when available) in 23 centers

Equipment	Frequency mentioned
Multiple users	13
Single users	9

Table EPM 5a - Weekly frequency of Obstetric Ultrasonography use:

	Freq mentioned
1	2
2	2
3	1
4	1
5	5
6	2
10	1
15	2
20	2
25	1
40	1

Table EPM 6 - Doppler available in center

Equipment	Frequency mentioned
Available	35
Not Available	16

Median use = 5 times per week;
Range: minimum=1,
maximum=40 times per week

Table EPM 7– Multiple Users of Doppler (when available)

Equipment	Frequency mentioned
Multiple users	15
Single users	18

Table EPM 8 – Method of Monitoring Use of Doppler:

	Frequency mentioned
Logbook	21
Other	4
No monitoring	3

General Equipment Management:

Table EPM 9 – Are requests prepared for equipment in general?

	Frequency mentioned
Yes	46
No	7
Not Applicable	1
No Response	4

N=58

Table EPM 10 – Basis for Preparing Request for Equipment in general

	Frequency mentioned
Prior Report	24
Needs Assessment only	15
Other	5
Not Applicable	14

N=58

Table EPM 11 – Who Prepares the General List of Equipment Requested (more than one option allowed)

	Frequency mentioned
Pharmacist	1
Administrator	28
Nursing	25
Physician	16
Other	10
No Response	2

Table EPM 12 – Who Follows-up the General List (more than one option allowed)

	Frequency mentioned
Physician	6
Administrator	39
Nursing	9
Other	13
No Response	

Table EPM 13- Is a list for RH Equipment P01/P02 submitted periodically?

	Frequency mentioned
Yes	30
No	18
No Response	8

Table EPM 14- What is the Basis for Preparing the Request for RH Equipment?

	Frequency mentioned
Prior Report	25
Needs Assessment only	8
Other	3
No Response	0

Table EPM 15 – Who Prepares the RH Equipment List? (more than one option allowed)

	Frequency mentioned
Physician	6
Nursing	1
Other	2

Table EPM 16 – Who Follows up the RH List? (more than one option allowed)

	Frequency mentioned
Physician	4
Pharmacist	1
Administrator	20
Midwife	1
Nursing	23
Other	14
No Response	4

Storage:

**Table EPM 17- Who Receives Equipment and supplies?
(more than one option allowed)**

	Frequency mentioned
Pharmacist	3
Financial Officer	4
Director	37
Other	31
No Response	1

**Table EPM 18- Who Receives RH Equipment and supplies?
(more than one option allowed)**

	Frequency mentioned
Pharmacist	3
Financial Officer	1
Director	33
Health section	1
Other	35
No Response	1

Table EPM 19 – Where are the General Lists of Equipment Archived?

	Frequency mentioned
With the Pharmacist	3
With Director	42
With Other	20
No Response	3

Table EPM 20 – Where are the Lists of RH Equipment Archived?

	Frequency mentioned
With the Pharmacist	3
With Financial Officer	1
With Director	40
With Other	21
No Response	2

**Table EPM 21 – Who Usually Dispenses Medical Equipment?
(more than one response allowed)**

	Frequency mentioned
Pharmacist	7
Assistant Pharmacist	1
Financial Officer	2
Director	19
midwife	2
Health Section	1
Other	25
No Response	8

**Table EPM 22 – Who Usually Dispenses RH Equipment?
(more than one response allowed)**

	Frequency mentioned
Pharmacist	8
Assistant Pharmacist	1
Director	16
Health Section	1
Midwife	2
Other	28
No Response	9

**Table EPM 23- Any Difference in Maintenance procedures
between general and RH equipment?**

	Frequency mentioned
Yes	7
No	40
Don't know	1
No Response	9

Table GCP1 – Type of Center

	Frequency
Dispensary	8
Health Center	13
Health & Social Center	1
Development Services Center	3
Hospital	3

Table GCP2 – location of Centers by Governorate

	Frequency
Beirut / Mount Lebanon	14
North	14
South / Nabatiyyeh	20
Beqaa	10

Table GCP 2a – Area Surrounding centers

	Frequency
City	19
Town	31
Suburb	3
Rural	4

Table GCP 3 – Dates of Establishment of Centers

	Frequency
Prior to 1975	14
Between 1975-1984	07
Between 1985-1990	04
1991 -2000	15

Table GCP 4 – Any Interruption of work after establishment?

	Frequency
Yes	16
No	37
No Response	4

Table GCP 5- Reasons for interruption of work of centers:

	Frequency
War	10
Maintenance	1
Relocation	3
Other reason	1
Don't know	2
Not applicable	35
No response	6

Table GCP 6- Date of Starting Work at Current Address

	Frequency
Prior to 1975	6
Between 1975-1984	6
Between 1984-1990	3
1990 –1999	23
2000+	5

Table GCP 7- Governance of Centers

	Frequency
MOPH	17
MOSA	39
MOPH& MOSA Coop Protocol	1
Other	1

Table GCP 8 – Residence Status of Center

	Frequency
Rent	37
Land was bought to establish center	3
Donation	2
Originally Gov Property	13
No Response	3

**Table GCP 9 – target Population of Centers of Center
(more than one option is allowed)**

	Frequency
The poor	55
Women	55
Elderly	52
Children	54
Families	51
Youth	53
Working men	41

**Table GCP 10 – Target areas of Centers
(more than one option is allowed)**

	Frequency
Neighborhood	66
City/town	8
Qada/Mouhafaza	5
Not identified	2
No Response	3

**Table GCP 11 –Beneficiary Population of Centers
(more than one option is allowed)**

	Frequency
The poor	56
Women	55
Elderly	52
Children	55
Families	52
Youth	50
Working men	50

**Table GCP 12 – Geographical Location of Beneficiaries
(more than one option is allowed)**

	Frequency
Neighborhood	51
City/town	38
Qada/Mouhafaza	15
Not identified	5
NR	1

Table GCP 13 – Range of Services of Centers

	Frequency
Environmental health	37
General practice	54
Specialty care (exc RH)	38
RH Specialities	56
Dental Care	26
Dispensing of Essential Drugs	54
General Health Education	55
Ongoing Hlth ed prog	24
Occational Hlth ed prog	28
Laboratory services in house	8
Lab services (facilitation of access outside center)	35
Radiology services inhouse	7
Radiology services (facilitation of access outside center)	28
Activities with communities	43
Follow-up visits with beneficiaries	35

Table GCP 14 – Range of RH Services of Centers

	Frequency
Prenatal Care	53
Postnatal Care	52
Delivery	30
Family Planning	54
RH education/councelling	54
Follow-up of beneficiaries at home	27
Lab tests	18
Community activities	38

Table GCP 15 - Features of RH Supplies to Center

RH related essential drugs are available	43
Flow of RH related essential drugs	
Regular	23
Intermittent	27
Don't know	1
No response	7
Flow of family Planning devices/supplies	
Regular	46
Intermittent	8
Don't know	0
No response	3

Table GCP 16 – Availability of Personnel

	Frequency
Practicing GP	54
Dentists	25
Ob gyn	53
Pediatricians	47
Other specialists	39
Nurses	80
Auxiliary nurses	126
Midwives	37
Dietician	1
Lab technicians	19
Radiology technicians	12
Receptionist	24
Staff handling receptionist duties	5
Record keeper	31
Staff handling Record keeper duties	3
Storage supervisor	3
Staff handling Storage supervisor duties	5
Social workers/ sociomedical workers	19
Social Counselors	30
Maintenance technicians	12

Table GCP 16 – Availability of Personnel

	Frequency
Medical equipment Maintenance technicians	1
Security guards	21
Drivers	19
Janitors	46
Food handlers	3

Table GCP 17 - Person workhours of personnel in Centers

Occupation	Total person work hours per day			Total person work hours per week		
	Median (hrs./day)	Range (min, max)		Median (hrs./wk)	Range (min, max)	
All General Practitioners	4	2	32	12	2	168
All Dentists	4	2	30	24	2	48
All Ob/Gynecologists	2	2	20	4	2	108
All Pediatricians	3	2	18	8	2	72
All nurses	12	6	42	64	32	224
All midwives	6	3	24	32	3	72
All auxiliary nurses	6	2	246	36	8	336
All lab technicians	6	6	12	36	30	64
All radiology technicians	6	3	30	32	18	180
All receptionists	6	6	32	30	3	160
All record keepers	6	4	18	32	20	64
All storage supervisor	6	No Variation		32	32	36
All maintenance coordinator	6	5	24	32	32	36
All social & socio-medical workers	6	5	18	32	15	36
All social councillors	6	6	42	32	32	192
All security guards	6	6	24	32	32	90
All drivers	6	5	30	32	32	180
All janitors	12	50	32	64	2	180

Appendix 6

Facility Physical Profile Tables

Table FPP1 - Floors & Room in Centers – Availability of Personnel

	Median	Range (min,max)	
Floors	1	1	4
Rooms	14	2	16
bathrooms	~2	1	20
entrances	2	1	9

Table FPP2 - Working Sinks

	Frequency
Yes	13
No	4
No, but nearby	3
No, but planning to install	1

Table FPP3 - Does Center Have means of Access for Persons with Motor Disabilities

	Frequency
Yes	13
No	12

Table FPP4 - Kinds of means of Access for Persons with Motor Disabilities available in centers

	Frequency
Ramp	2
Elevator	2
Center is on ground floor	7

Table FPP5 - Availability of Counseling Room in Centers

	Frequency
Available	13
Not Available	4
Not needed, use other rooms when empty	6

Table FPP6 - Availability of General Meeting Room in Centers

	Frequency
Available	19
Not Available	2
Not needed, use other waiting room	2

Table FPP7 - Availability of Heath Education Room in centers

	Frequency
Available	17
Not Available	2
Not needed, use other waiting room	4

Table FPP8 - Conditions of Electricity in Centers

	Frequency
Good	3
The current is weak	1
Some Electricity Cuts	14
Many Electricity Cuts	6

Table FPP9 - Quality of Water in Centers

	Frequency
Good	19
OK	1
Unsatisfactory	2
No response	1

Table FPP10 - Availability of Water in Centers

	Frequency
Available & enough	19
Available but not enough	3
No response	1

Table FPP11 - Sources of Heating in Centers

	Frequency
Electricity	10
Diesel	14
Natural Gas	10