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URBAN HEALTH DELIVERY SYSTEM PROJECT -- USAID Project No. 263-0065

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PROJECT INTERNAL EVALUATION

Final Report to Evaluation Steering Committee

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## PREFACE

The Egypt Urban Health Delivery System Project represents a unique effort to bring to the Egyptian people a complete system of primary health care, including maternal and child health services. The evaluation process reported here gave us another opportunity to witness the achievements of the project's chief executive officer. We came to understand more fully the great challenges she faces in her efforts to provide a service program that is both efficient and humane. We therefore preface our report on the evaluation findings with an expression of our admiration and appreciation for the work of Dr. Nabahat Fouad, Executive Project Director and career officer in the Egypt Ministry of Health. She has directed the work at all stages of the Urban Health Delivery System Project with the highest personal commitment and dedication to meeting the goals of the project and the needs of her people.

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## UHSP 1984 INTERNAL EVALUATION

### 1. Introduction

The Evaluation Team presents here the final report from the 1984 internal evaluation of the Urban Health Delivery System Project (UHSP).

The UHSP was designed to improve the health status of low income residents of urban areas of Egypt by improving access to a range of primary health services. The short-run focus is on maternal and child health services in specific areas of Cairo where there is an estimated target population (women in child-bearing years and children below the age of six years) of 625,000. The longer run goal is to improve the health of all low income urban residents of Egypt by means of improved access to primary care. In terms of the Egyptian health delivery system, the project focuses attention on Maternal and Child Health (MCH) Centers and on General Urban Health Centers (GUHCs). In particular, the project will renovate 18 MCH Centers and one GUHC; in addition, eight GUHCs and CSPM will be built. To achieve the long-run project goals and objectives it will be necessary for the project to influence the delivery of all urban health facilities, not simply the 28 facilities directly involved. Thus, it is necessary to win support within Egypt for the concept of primary care.

The original goal and object, stated in the earliest project papers, refer to: improvements in urban health status, increased access to primary care, and the importance of replication of the project activities on a country-wide scale. From these original statements, five (5) more specific objectives have been derived. These are:

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- A. To improve the quality of primary health services in urban MCH Centers and GUHCs.
- B. To upgrade the physical facilities in existing MCH Centers and construct eight GUHCs and the Center for Social and Preventive Medicine (CSPM)
- C. To improve facility management; a concern for cost containment is understood to be a part of this goal.
- D. To develop a close relationship between the facility and the community.
- E. To develop support for the MCH and primary care approach in the Egyptian system.

The structure of goals and objectives is shown in Exhibit 1. The activities of the project can also be considered in terms of this structure of objectives. Most project activity to the present time is related to improvement of the quality of primary health services and to the physical renovation of existing MCH Centers and one GUHC. Additional work relates to an improved management capacity. In the future, work will be related to all five objectives.

Evaluation Scope. The team conducted observations and interviews for this evaluation during the period 28 January to 20 February 1984. The report contains responses to specific issues presented by the UHDSF Evaluation Steering Committee and recommendations for action by the project. The Evaluation Team wishes to express its appreciation to all project participants who contributed to our work by interviews, observations at facilities, and providing project documents. Special thanks are given

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Original Project Goals

- \* Improve Urban health status
- \* Increase access
- \* Consider replicability

Derived Objectives

To improve the quality of primary health services in urban MCH Centers and GUHC's

To upgrade the physical facilities in existing MCH Centers and construct GUHC's and CSPM

To improve facility management (including a concern for cost)

To develop a close relationship between the facility and the community

To develop support for the MCH/primary care model in the Egyptian system

EXHIBIT 1. Project Goals and Objectives

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to Dr. Nabahat Fouad, Executive Project Director, for her continuous support and encouragement to the Team.

The Evaluation Team began work by studying the Steering Committee documents prepared for the 1984 Internal Evaluation. The Committee documents divided work of the project into six (6) areas as follows:

- A. Organization and Management
- B. Training
- C. Information, Education, and Communication (IEC)
- D. Evaluation and Statistics
- E. Center for Social and Preventive Medicine (CSPM)
- F. Construction, Renovations, and Equipping

A total of 31 issues was received from the Steering Committee concerning these six areas. The Steering Committee specified that each "area" is to be evaluated in its totality. This request came from the fact that many project units contributed to each area of work. For example, parts of the training area are being done by the Human Resources Unit, the Organization and Management Unit, and several others.

Evaluation Phase 2 work gave the Evaluation Team a good picture of the work inside the project. We tried to get several people's ideas about each issue. This approach gave us the benefit of many new perspectives and added to our understanding of the progress and special challenges of the project.

The methods used in Phase 2 of the evaluation were as follows:

- A. Observe project activities in each of the six areas to give the Evaluation Team a clear picture of current project operations.

- B. Determine the present status of project work in the six areas by using the Project Monitoring Charts prepared by the project units and by interviewing staff members.
- C. Present the Evaluation Team response to Project Issues for the six areas of the project.
- D. Discuss with the Evaluation Steering Committee the results and reports of Phase 2 studies.

Evaluation Phase 3 was concentrated on the comparison of project goals to the objectives and activities of the project as a whole. These reviews were intended to help clarify the appropriateness and feasibility of various possible ways to conduct remaining project work. Additional interviews were conducted in Phase 3 with project staff members and with people in other parts of the Ministry of Health (MOH). The Evaluation Steering Committee provided five foundation issues for the Team to consider. These issues were examined carefully by the Team, and responses are given by the Team in Chapter 8.

Purpose. The Internal Evaluation was organized to measure project progress and (if possible) to identify new options for use by project participants to follow. Special attention was given by the Team to strategies in the present and proposed future work of the project. The Team concentrated also on the present sub-objectives and proposed products of the project to ensure their consistency with project goals.

Next Steps. The Team realized that many project activities will need attention in the next year and before project completion in January 1986. The recommendations in Chapter 9 were prepared to assist in planning and

project implementation steps. The project participants should keep two types of plans in front of them. The first plan gives overall goals, objectives, indicators, and products. This plan can show accomplishments and remaining work. The plan can help to identify major areas needing attention. The second plan is a detailed project implementation plan to give a clear picture of work in the coming year for each unit. Chapter 8 contains a discussion of this planning process.

Organization of the Report. The report contains 9 chapters and some annexes. The first chapters (Chapters 2 to 7) give the Team findings from the review of project areas. Conclusions are given in Chapter 8, and recommendations are given in Chapter 9.

## 2. Organization and Management

Introduction. The Organization and Management Area covers the planning and implementation of service and support systems for primary care. The director of this unit, Dr. Farouk Gaafar, provided much useful information to the Evaluation Team and prepared the basic concept paper which organized the Team's studies in this area. The service and support systems required the Project to integrate three major component:

1. Improvement of available physical resources,
2. Manpower development, and
3. Modification of the existing organizational framework.

Only the latter two are considered in this section. Improvement of physical resources is considered separately in chapter 7.

This discussion in this chapter is organized according to the seven issues presented to the evaluation team for the Internal Evaluation. The issues presented to the Evaluation Team are focused to a great extent on the 1983 service improvement module interventions--ORT, growth chart, etc.

The scope of activities in the organization and management unit was broad, as is demonstrated in the unit Tracking Chart Summaries. The work over the life of the project can be seen to have passed through several, different areas of emphasis, including: Programming and planning, facilities development, and interventions. The team found that much progress was made during the past year in planning and implementation for the Organization and Management area. The Team encourage the Project and the unit to continue its careful planning in its new interventions.

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2.1 Do the currently-implemented and planned-for-implementation Interventions constitute an appropriate "Cocktail" to address the major problems?

Response. The package of interventions can be considered in two parts: implemented ones and non-implemented ones. The implemented group included, listed in order to priority, the following:

1. Oral Rehydration Therapy (ORT)
2. Growth chart
3. Drug distribution and utilization
4. \*Donations packaging
5. Medical Records
6. Health Education
7. Bacterial Sterilization

This portion of the intervention package has been implemented in four renovated MCH Centers: Mesaken Helwan, Misr El Kadima, El-Maadi and Al Kaala. The unit Tracking Sheets prepared by the Organization and Management unit describe the implementation of six of these (all except Health Education which is reported in chapter 4 of this report).

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\*Note: A minor change that the evaluation team would propose with respect to the discussion of interventions and the definition of sub-objectives corresponding to interventions pertains to the interventions related to food donations. It is felt by the team that the appropriate intervention for MCH Centers is the provision of nutrition education. It so happens that at the present time the appropriate nutrition related activity relates to food donations. However, if the donations were to cease tomorrow, the MCH Center continues to have the responsibility to educate clients about nutrition. The only change called for is relatively small, but we feel significant, namely that the name of the intervention be changed.

The non-implemented interventions are proposed by the Project to include:

1. Organizational structure
2. Economic treatment
3. Community outreach
4. Community participation
5. Family planning

Documentation is still being prepared for these interventions, and the Team encourages the Project staff to devote an amount of attention to planning these interventions that is equal to or greater than the amount devoted to the implemented interventions.

The team points out that all of the 1983 implemented interventions require first the completion of MCH Center renovation and the acquisition of new equipment. The proposed, non-implemented interventions do not depend on the availability of newly renovated Centers. However, further implementation of old interventions will continue to depend on having renovated facilities and new equipment.

An important consideration for the Project at this time is how to begin studies of the intervention package from the point of view of cost and cost-effectiveness. The complex package that comprised in each case an intervention now will need monitoring of cost to to with the previous studies of effectiveness and utilization. This is particularly noteworthy in the case of the drug intervention. In the long run the ability to maintain a stock of drugs in MCH Centers would probably depend on the ability of the centers to maintain a tight control on utilization and cost of drugs. It is also, on another level, very important to begin consideration of the cost of the introduction of interventions.

A very impressive array of talent has been brought together to introduce successfully the first round of interventions. It will be impossible for the limited number of Project staff members to put in the same amounts of time introducing these interventions into additional MCH Centers as was used in the first four centers.

The appropriateness of the intervention package may be considered using several criteria:

1. Method of selection
2. Complementarity with other concurrent programs
3. Potential for successful introduction in the initial sites
4. Completeness of the interventions as related to the total set of project goals

With regard to the method of selection of the package, it would seem important to involve a broad range of persons at both the community and various governmental levels. The unit tracking sheet notes that two committees were formed to select and rank interventions. Thus, it appears that the selection process was a particularly desirable one. This process, however, needs better documentation for use in disseminating project experience. It may be possible for the new interventions to broaden the range of persons, participating in the selection and planning process.

The complementarity, or relationship, of interventions to programs is important to consider, for example, both the ORT and the food donation interventions are complementary to other programs. There are positive externalities for the MCH Centers in implementing these program. Mothers attracted to a well-functioning food distribution program come to the MCH center where they become involved in the educational program, the well baby program and/or other MCH activities.

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Since the success of implementing the first seven interventions appears to be high, the package would have to be ranked high in terms of the third criterion. It should be noted that implementation of each intervention involved a complex mix of activities. These are detailed on the Unit Tracking Sheets so that it is not necessary to repeat them here beyond presenting an example that is typical of the various interventions. In the case of ORT, the interventions involved the establishment of a room for the purpose, the development of a record keeping system and a supervisory checklist, and the training of personnel. Similarly complex combinations of activities were required for each of the successfully implemented interventions.

On these first three grounds--method of selection, complementarity, and potential for success--the package of implemented interventions would have to be ranked high. Probably the most important issue was to have defined a set of interventions and to have successfully introduced them. This the project seems to have done. After initial success, it should be possible to build on the initial enthusiasm as well as on the newly trained personnel (at several levels) and broaden the intervention base. This can, of course, happen either by introducing a new intervention or by broadening and existing one.

The team examined the completeness of the package of implemented interventions and compared them to project goals. The project staff should continue to expand and refine the package as recommended in chapter 9.

With regard to future activities of the UHDSP staff, it is imperative to continue developing the new interventions, and to implement them as soon as possible. Definitions of the new interventions need to be matched against the broader project goals to see that the innovations are meeting the broad as well as the narrower intervention related goals. It is likely that implementing the future interventions will prove to be at least as difficult, if not more so, than implementing the first round interventions. The next round, if it is to be as successful as the first round, will require a great deal of work.

In summary, the package prepared by the Project has been shown to be very satisfying up to now. The plans for additional interventions must receive the same careful attention that was given to the previous interventions.

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2.2 The UHDSP's experience to date, concerning implementation of its pilot interventions, has been that, no matter how cooperative and capable Health Center and zone personnel have been, considerable amounts of start-up time and energy still need to be invested by the O & M unit personnel in order to put these new activities on their feet. Given this requirement and the further general constraints of distance, time and manpower, how can the MU staff be utilized to maximum effect? How can the Health Center and Zone personnel be involved more effectively to this burden from the UHDSP?

Response. Although the UHDSP has spent a great deal of time in introducing the new interventions, it also appears to have accumulated a considerable amount of re-useable capital in the form of manuals, checklists and forms. The Unit Tracking Sheets from the Organization and Management Unit suggest the following manuals: drug distribution and packaging and bacterial sterilization. Checklists have been developed for drug distribution and packaging, ORT, bacterial sterilization, and donations packaging.

With the successful experience of introducing interventions into newly renovated MCH Centers, the UHDSP staff should attempt to turn as much of the job of startup of the additional centers as possible over to others. If this has not already been done, the UHDSP staff should carry out an internal assessment of the experience to date: what has worked particularly well? What persons--particularly at the MCHC and zone levels--are interested and competent? What are the trouble spots that will require close monitoring?

The rationale for turning the already defined tasks over to others are many. The more people who are involved (within manageable limits) the more supporters of the MOH philosophy who will be developed.

Teaching reinforces the learning that has already occurred. Teaching develops new skills and new confidence. If some MCH personnel become both competent and visible in the process, they may well find themselves in new jobs, thus helping to develop the career pattern in Primary Care the project hopes to achieve.

It will be necessary for the HDSP staff to monitor the situation and be ready to supplement the process with their own presence or that of ~~some~~ well known or highly respected outsider. The project staff is needed to get on with the creative tasks that remain while being nonetheless, available for "trouble shooting." The five remaining interventions, even if no additional new ones are specified, will require the full attention of the UHDSP staff.

One way of expressing this position is that the project has produced a healthy baby, nurtured it well during its earliest days, and now must let the baby take its first steps alone unencumbered by an over anxious parent.

2.3 Based on the available evidence to date, have the health service improvement interventions, thus far implemented by the UHDSP, resulted in measureable, positive change in the way health care is delivered, received and sought?

Response. There have been definite improvement in the "way health care is delivered, received, and sought." Most impressive to the team was the increase in utilization of services. While utilization reflects the way health care is sought, it also reflects the patients' attitudes toward care and the way it is delivered.

While all utilization measures appear to have risen, the team finds several measures to be especially convincing. These are antenatal and well-baby visits. There are problems associated with using increases in in-facility deliveries as an objective, but the current increase in these deliveries would seem to suggest a new attitude on the part of patients.

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2.4 Are the specific objectives of the health service improvement interventions planned and implemented to date sufficiently well-defined and appropriate? If not, how might they be made more so?

Response. The specific objectives of the health service improvement interventions set forth in the unit tracking sheets from the Organization and Management Unit indicate a great deal of work and effort. Some of the stated objectives are complete and some will require further definition to ensure that they give proper indication of effectiveness

The service improvement objectives typically should begin with a general, overarching objective. This objective should be broad and is not necessarily quantifiable. An indicator is prepared to specify the extent to which an objective is being achieved. For example:

Objective:

To increase the utilization of family planning services by women in the accessible service area.

Indicator:

The change in the number of person-months of coverage by contraceptive devices for a specified time period before and after an intervention.

Accompanying sub-objectives are designed to be more specific and measureable so that work toward the general objective can be evaluated. A good set of sub-objectives should "fill the space" occupied by the general objective so that some major facet of the objective is not neglected. It is desirable that the progress on the sub-objectives be measureable. However some cautions are in order:

1. Definitions must be precise
2. Time periods especially the base period must be carefully specified.
3. When 2 periods are compared, care must be taken to ensure similarity of the 2.
4. Use of a number in a sub-objective does not of itself ensure measurability because one or more concepts involved are not presently either measureable or known.

2.5 Has the capability to identify problems and plan implement solutions at Health Centers, Zone and Governorate levels improved significantly since the Project's inception? If not, how might this be better effected?

Response. It is difficult on the basis of information presented to us to identify just how much progress has been made in abilities to identify problems and plan and implement solutions at the levels of the MCH Center, Zone, and Governorate. In this pyramidal structure it our impression that the greatest improvement has been made at the base of the pyramid, i.e. at the MCH Center level with decreasing change as one moves up the pyramid.

It would seem that considerable impact could be made at the Center level with regard to these issues, and various discussions indicate UHDSP thinking and action along this line. The approach seems to be a two-pronged one involving the development of management skills in Center personnel and the giving of responsibility so far as possible to Center managers.

Generally, the two-pronged approach is to be encouraged. In addition, documentation of actions in this area needs to be made. When more renovated centers have been opened and the initial interventions implemented, consideration should be given to establishing horizontal communication, that is, communication between nurse supervisors, etc.

In considering higher levels of the pyramid, the major suggestion is to keep the door open for cooperation between UHDSP staff and government personnel. There appears to have been more success at involving government personnel on short term than long term projects.

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Efforts to involve government personnel should continue with invitations going out for appropriate arenas of cooperation. Efforts should continue to be made to involve a wide range of other people in the project and to seek approval for changes in policy which can make the primary care delivery system more effective. The Team suggests that, where appropriate, formal working agreements be prepared setting out relationships and duties of zone offices within the project activities.

2.6 Has the UHDSP's capacity for planning and implementing health service improvement activities grown over the past 3 years to the degree expected, given its starting point and existing constraints? If not, how has it fallen short and what should be done additionally or differently to improve performance to these areas?

Response. The UHDSP began its life facing many difficult constraints pertaining to resources and staff. Starting without the full complement of staff was particularly difficult. Only within the last three years has there been a fully staffed operation in place. Given the assumption that all other activities depended on the availability of renovated facilities and new equipment, it has been only recently that the project has been in a position to demonstrate their capacity for planning and implementing health service improvement. They have so demonstrated and now the conditions are present in which further advances can be made. There is a need to expand existing activities to include new interventions and new emphases such as cost containment and to extend project involvement by including new personnel within the project staff, the zones, on the governorate.

2.7 Based upon anticipated revenues to the Health Center and Zone, following the introduction of the "economic treatment", to what uses, in order of priority, does the evaluation team view this projected income should be put?

Response. The criterion for setting uses of fund is that, as they come in, the fees should be used in so far as possible under the predetermined constraints, to increase the managerial capacity at the local level. In terms of the focus of this question, two additional points about uses of income from economic treatment are important. First, the use of any income from economic treatment is fairly well prescribed under government regulations. Secondly, the funds should be allocated at the local level.

The Team advises that careful monitoring of Economic Treatment, be arranged to identify any problems and to discover early any unexpected deviations from the project plans. It is recognized that the UHDSP staff has devoted considerable importance to this intervention.

The Team is concerned that Economic Treatment will introduce a host of new problems pertaining to access to MCH services on the part of the target population, the urban poor. The reason for the concern is that a number of empirical studies from elsewhere indicate that increasing the price of health services, results in a decrease in utilization, especially by the poor. This is in accord with economic theory which indicates that in the absence of any other changes, an increase in price will result in a decrease in the quantity consumed.

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A number of outcomes as a result of the introduction of economic treatment are possible and it is not possible now to predict these outcomes exactly. If the morning free services are perceived as less desirable than the afternoon paid services, morning utilization may decline and, for the very poor, not be accompanied by an increase in afternoon utilization. In other words, the MCH Center may as a result of economic treatment not serve its target population as it should. Another outcome might be that utilization would increase at the MCH but that the increase would represent a new population (able to afford the fees and perceiving the afternoon clinic as representing an acceptable level of health care.) These people may not be new recipients of care; they may simply have switched providers.

Staff assigned to the Economic Treatment clinics must be carefully selected to ensure that quality of service is maintained, rights of the poor get proper attention, and work is done with attitudes of good service in both programs. It has been difficult in programs developed elsewhere to maintain two tracks of service without also creating the ill effects of a two-tier systems with the two tiers either reflecting different quality or being perceived as providing different quality of service.

The impact of economic treatment introduced at the present time or in the near future would be difficult to measure with any degree of reliability. First, demand for services at the newly renovated MCH Centers, is changing daily. It appears, in the economist's terms, that demand is shifting out as the public becomes aware of the new, higher quality level of health services being provided at the MCH Center. At some point, that is impossible to predict at the present time, demand

will stabilize. If economic treatment is introduced immediately, it will be impossible to determine whether the outcome is the result of continuing shifts in the demand curve or from the economic treatment. Second, the time period since the opening of the renovated centers until the introduction of economic treatment would be extremely short even in the absence of a concern about shifting demand. Third, possible changes in other health services facilities in the area, will make it difficult to measure access the impact of economic treatment and the effects of the other facilities.

Finally, results of a test made at an MCH Center will be valid only if the population of that Center representative of the MCH target population.

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### 3. Training

Introduction. Training and Research are the two main activities included under the Human Resources Unit. During the past three years an impressive amount of in-country and out-of-country training has been planned, implemented, monitored and evaluated by the project. The provided documents and discussions with Dr. Insaf Ghabrial director of Human Resources Unit and other project units and staff members enabled the team to identify the main components of the project's basic strategy in training:

- A. To fill the training gap rather than duplicate training activities performed by the MOH at both central, governorate and zone levels.
  - B. To expand the coverage of training activities to include all types (professionals, paraprofessionals, auxiliaries, etc.) of health and health related workers within the project area, at all levels (Project, Governorate, Zone and Units)
  - C. To extend training activities to include community leaders whose role is essential in increasing service effectiveness through community motivation and participation.
  - D. To develop relevant training activities based on the identification of training needs for overall improvement of service delivery as well as to achieve specific predetermined objectives for various service activities e.g. new interventions.
  - E. To identify training needs, to use a variety of appropriate training approaches and methods; and to conduct, monitor; and evaluate various training activities.
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- F. To identify and develop potential trainers at the various levels of the project (Project, Governorate, Zone, and unit level) and bring additional trainers from various academic, and development insititutes to complement the training capabilities within the system.
- G. To utilize the out-of-country training opportunities to complement the in-country training activities in a variety of ways, e.g., enrich the experience of project personnel by acquiring additional knowledge and skills as well as observation of service activities in similar or different cultural settings.

Objectives. Information provided to the team and obtained through discussions with various staff members enabled the team to crystalize the following 4 objectives for project training during the last three years. The ultimate objectives are to:

1. Institutionalize within the project area a need-oriented, comprehensive, appropriate and dynamic training system capable of identifying training needs, planning, implementing, monitoring and evaluating training programs necessary to improve the effectiveness and efficiency of project personnel.
2. Identify and develop training potential from within the project and complement these training capabilities from universities, development institutions etc.
3. Introduce competency-based training
4. Expand on-the-job training to be performed at the MCH Centers

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During the last three years the project staff accumulated a wealth of experience in continuing education and training of urban MCH personnel and a great amount of educational material and information on training activities that is kept in files.

Both the accumulated experience and material form the main ingredients of a culturally relevant formula for upgrading of health and health related manpower capabilities in urban MCH Centers of Egypt. There now exist 230 MCH urban Centers and 89 urban GUHCs.

The Team suggests that during the next two years intensive efforts should be directed to capitalize on this investment in two ways:

- A. Convert the available material and information into:
  1. Training manuals for various types of health and health related personnel.
  2. Guidelines for monitoring and evaluation of trainees.
  3. Compendium of training material in specific areas.
- B. Develop a two-year plan to institutionalize at the national level the experience gained in the project.

The Team suggests that the institutionalization at the national level should be developed as part of Research and Development (R & D) function for urban health. This R & D function could be responsible for providing technical advice and guidance in the area of continuing education and training of MCH human resources.

- C. Develop necessary plans to increase governorate and zone-level training capabilities in Egypt, perhaps by using the project area for field training.
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3.1 What is the Evaluation Team's assessment of the development of the UHDSP's training capabilities over the past 3 years, in spite of existing constraints?

Response. The training unit should be commended on the increase in training capabilities achieved over the past three years which developed internal training capabilities at all project levels and enriched the experience of trainers drawn from outside the project (especially academic institutions) who in turn will be able to draw on such experience in their academic teachings. Visiting Masaken Helwan and Masr El kadima Centers clearly demonstrated the great success of the on-the-job training in improving performance as well as developing training capabilities. The project used an approach of providing intensive initial inputs of project personnel to provide training, monitoring, and evaluation in MCH facilities. This approach on the surface appears to be both expensive and to reflect a lack of confidence by project personnel in the established systems. The Team accepts the approach, however, as essential and justified within the Egyptian culture. The increased capabilities and experience of zone and governorate personnel should permit a transfer of the previous intensive input by the project during the next year.

The team would like to raise two main questions for future consideration by the project:

1. How much is the on-the-job training is geared to or conditioned by the new structural setting?

2. As this training useful when trained personnel are transferred to another, perhaps unrenovated, facility?

As the effectiveness of training dependent upon having a trained team?

- As it possible, in the face of high turnover to maintain a trained staff at the renovated project?

3.2 Is the present combination of training approaches--i.e classroom teaching at continuing education center and on-job training--the most effective method to employ to achieve the desired results in the given context and within existing constraints? If not, what is a better, suggested approach?

Response. The Human Resources Unit used a variety of training approaches and methods in conducting various training activities. Before suggesting other approaches one would like the unit to evaluate the already used approaches and develop some guidelines which could help in selecting from among already used approaches and modify or add to them.

The evaluation should focus on:

1. The ability of the approach to provide opportunities for the trainee to participate in design, implementation and evaluation of the training activity.
2. The ability of the approach to provide for modification to respond to trainees needs during implementation.
3. The ability of the approach to provide for interaction between academics and practitioners in designing a balanced training activity.
4. The ability of the approach to provide necessary mechanisms for a successful interdisciplinary training activity.
5. The ability of the approach to upgrade the team training existing skills or provide them with new skills and to encourage attitudinal and behavioral changes in the participants rather than mere accumulation of facts

6. The ability of the approach to enable the trainee to identify problems or raise the right question and then search for appropriate solution rather than giving him already made prescriptions.

The results of such a study can contribute greatly to program design and implementation.

3.3 Have the training needs associated with the health service improvement interventions been adequately defined? If not, how might they do more precisely determined?

3.4 Have the training programs related to the health service improvement interventions fulfilled the specific training needs? If not, how are they deficient and how might they be better tailored to the needs?

Response. The team proposed that an adequate definition of training needs should include:

1. Lack of necessary knowledge, skills and/or attitudes to effectively and efficiently perform the assigned duties and undertake responsibilities.
2. Need to acquire more confidence to adopt and practice innovative ideas and improve self image.
3. Need to motivate personnel and prepare them for promotions to higher level job.
4. Need to increase horizontal communication and interaction between project personnel and develop team spirit and a sense of belonging.
5. Need to assimilate supervisors into the training approaches to reinforce the relationship between training and supervision.
6. Need to relate training to real-life situations and to use as training materials actual forms and procedures from the work place e.g new formats for the several interventions.

It is very clear that the director of the training unit is fully aware of the importance of developing need-oriented training programs using workshops, interviews and observations to identify the training needs. The need for improving management and supervision skills was met by a

number of training activities of both theoretical and practical nature with more emphasis on the theoretical component especially for top and middle management personnel. The on-the-job training for service intervention emphasized learning by doing rather than abstractions and used the renovated facilities for training.

In order to respond fully to this issue, the unit should undertake an evaluative study through interviews of trained service personnel well as observation of their performance. The study may include a limited-number of interviews with a selected sample of clients.

3.5 Has there been a significant increase in the training capabilities at the levels of the Health Centers, the zones and the governorates over the past 3 years? How might these capabilities be further effectively increased?

Response. Training capabilities are defined by the team as including:

- Ability to communicate ideas in a simple comprehensible way
- Ability to use appropriate audio-visual materials to reinforce ideas
- Ability to motivate trainees to participate positively in discussions
- Ability to assess changes in knowledge, skills, and attitudes of trainees
- Ability to set goals and develop training programs accordingly
- Ability to encourage creative thinking and problem solving

The increase in training capabilities at the above mentioned levels is quite evident. The main issue is how to maintain and develop these capabilities and replace those who leave the project area. Monetary and non-monetary incentives seems to be crucial including educational incentives. Monetary incentives available during the life of the project partially meet the need but may be difficult to sustain after the project ends. A more stable mechanism should be devised to assure continuity of this type of incentive. For example the fund generated by economic treatment clinics may yield some continuing incentive payments. Also use of out-of-country training is recommended as a form of the non-monetary incentive. A much more difficult long-range issue involves the effects of overtraining of MCH service and the possibility that such training could perhaps encourage brain drain to other countries.

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3.6 Has the follow-up of the various training activities been adequately executed? If not, how might this be better effected within the twin constraints of time and manpower?

Response. The team views that follow-up of trainees provides information about:

1. Suitable placement of trainees
2. Ability to use knowledge and skills gained during training in present job
3. Need for refresher courses
4. Modification of training course contents, approaches, and methods to meet needs of similar trainees
5. Development of appropriate continuing education programs

Methods for follow-up of trainees can take a variety of forms. The project training unit uses on-the-job observations and interview with personnel who have completed the MCH on-the-job training program. All training activities include a pre and post evaluation component which should provide the basis for follow-up of training impact.

The follow-up function needs to be more systemized and institutionalized at the zone and governorate level, mainly through supervisors at both levels. Follow-up reports should generate necessary information for modifying training activities and/or developing refresher courses. Regular communication with trainees through short questionnaires or regular short meetings boosts their morale and helps improve future training activities.

3.7 Have the various options and benefits of out-of-country training been adequately defined and documented by the UHDSP to date? If not, how can they be improved upon?

3.8 To what extent have the out-of-country trainees benefited the Project? How can these benefits be improved?

Response. Information provided clearly shows that the project has chosen the option of using short-term training and observation tours of 4 to 12 weeks rather than long-term out-of-country training. This option provides opportunities for a large number of project personnel to acquire knowledge than when a policy favoring long-term training is followed. Observation of activities in a new setting that is similar to those found in Egypt motivates individuals to meet the challenges they face in undertaking comparable activities at home (we can do what the others are doing). Some of those who went on such tours should be used as resource persons in workshops or seminars. It would be useful to send teams to other countries with successful MCH/ Family Planning, or Nutrition Projects to learn specific skills, for example, management of outreach activities, IEC methods, community organization and participation, or clinical skills. The team suggests that short-term out-of-country-training be used to develop joint training courses including on-the-job training. For example, the 8 directors of the new GUHC's could be preferably sent to a major urban primary care facility, such as the South Dade county Polyclinic in Florida for 2-3 month period.

The objective of such a visit would be for the 8 directors to develop actual training packages. They would gain also access to material training processes such as:

1. Methodology/approach to Health Team creation/training
2. Training (0 - 3) in clinic administration encouragement in working milieu.
3. Training vis a vis quality control (chart reviews, etc.)
4. Training vis a vis development of treatment protocols.

3.9 How can the English language proficiency requirement constraint, which affects the choice of out-of-country training and candidates, be more effectively addressed by the UHDSP and USAID?

Response. The Team suggests that the project use resources available in Egypt for intensive English instruction. The programs offered at American University in Cairo and through the American and British government cultural agencies can be used under contract to the project. In instances needing special attention, special tutors can be engaged as consultants to the project. These arrangements for tutoring should be organized with a clear objective for level of competence required by the candidate within specified time periods.

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3.10 Taking into consideration the involved costs and the budget allocation, what are the Evaluation Team's recommendations concerning the relative emphasis which should be placed on in-versus out-of-country training in order to derive the maximum benefit to the Project in the time remaining?

Reponse. The Evaluation Team proposes that the present policy which favors in-country training be continued. The exception to this is training to meet special needs when resources are not available in Egypt.

The relatively high emphasis which the project initially put on in-country training can be justified not only on a cost basis but also on a cultural basis. This is true especially in areas where understanding of social and cultural values and norms plays a crucial role in improving the effectiveness of health services.

In addition the use of Arabic ensures a wider coverage of project personnel at all levels as the institutionalization of the process moves forward. Even in case of physicians with some familiarity with English, it is easier to implement such courses with Arabic speaking trainers with Egyptian experience than with American trainers using English with Arabic speaking trainees, the training is not delayed until the trainer acquired proficiency in English.

Assessment of benefits to the project needs to be more documented through a small evaluative study of:

- A. Performance
  - B. Ability to transfer skills to colleagues or junior staff
  - C. Adaptation of acquired skills to local conditions
  - D. Development and implementation of innovative ideas
  - E. Ability to work cooperatively with other personnel in a team
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#### 4. Information, Education, and Communication

Introduction. The role of information, education, and communication (IEC) activities in diffusion of innovations is crucial since it is the main vehicle through which the new ideas and concepts are presented to Target Population. The IEC processes should lead to acceptance, utilization and realization of specific desired outcomes or impacts due to appropriate and adequate utilization. The team views the whole UHDSP as an innovation in delivery of maternal and child health (MCH) services in urban areas. The project aims to provide accessible and community oriented good quality MCH service within and beyond the MCH Centers through an outreach home visiting program and community participation.

Diffusion of UHDSP concepts will require the direction of IEC activities toward three main groups: health providers, including overnment health personnel, potential MCH users, and the community at large. The sustained success of the project depends on the achievement of behavioral changes in the three groups in which IEC plays a crucial role. This broad role cannot be played exclusively by the Project IEC unit, but all project personnel should actively participate and support in IEC activities.

The Team views the main role of the IEC Unit to be as follows:  
Identification of IEC needs, and the planning, programing, monitoring and evaluation of activities.

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Program Strategy. The team feels that the program has adopted the following strategy:

1. To direct the IEC activities simultaneously to the three target groups with more emphasis on MCH Center providers in the beginning, followed by others;
2. To utilize of a variety of approaches, methods, techniques, and technologies to address various groups to achieve specific objectives;
3. To emphasize need-oriented planning and learning-by-doing.

From their examination of the documents provided and discussions with IEC unit personnel and other project staff members, the team feels that the main objectives of IEC activities during the last three years were as follows:

- A. To define the health education role and responsibilities of various MOH personnel within the project area (governorate, zones and MCHC's) and develop planning, implementation monitoring and evaluation capabilities within the project area;
- B. To delineate the health education component of various service activities at MCHC's as have been done for new service interventions;
- C. To upgrade the quality of health education provided by various health and health related personnel achieved through meetings, workshops, and on-the-job training;
- D. To identify opportunities in various settings which could be used for health education, e.g., the study of "down time" in MCH Centers;

- E. To capitalize on existing health education materials rather than develop messages specifically for the project;
- F. To try a variety of mechanisms to enhance community involvement and participation in the various project activities, e.g., community organization activities;
- G. To disseminate relevant and adequate information about the project to MOH personnel and the public at large using various settings and approaches and media, e.g., formal and informal meetings orientation courses, workshops, mass media etc.

During the last three years of the project life the main activities of the IEC unit can be categorized as follows:

1. Training in health education for various types of health and health related personnel at all levels of the project;
  2. Community organization activities using a variety of approaches to gain support for health education, e.g. health education committee;
  3. Service research studies to identify needs, problems, and opportunities for health education.
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4.1. Has the essential information concerning the UHDSP been effectively disseminated to date among MOH personnel and the public at-large? If not, how can this be better achieved?

Response. Since the start of the UHDSP the project has made considerable efforts to disseminate the essential information about its work among MOH personnel and the public at large, especially community leaders. Dissemination was accomplished through formal and informal meetings, orientation courses, workshops, and lately through mass media. The Team feels that it is important to develop standardized information about the project to use at various levels.

Such standardized or locked-in information ensures an accurate presentation of information to the target audience. This information could be presented in pamphlets, small booklets, sound and slide sets, short movies, etc. This material could be used by itself or as an integral part of training activities. The target audiences could include: MOH officials, health providers, clients, community leaders, and the general public.

4.2. Have the ability and capacity to plan and implement health education activities at the levels of the health centers and zones been increased as a result of the UHDSP's health education programme? If not, why not, and how can this be proved?

Response. Information provided to the Team through documents and discussions with the project personnel suggests that staff members in centers and zone offices have an increased ability and capacity to plan and implement health education programs. Planning efforts by members of the Project IEC Unit should be commended along with their involvement in the on-the-job training at the Center level. The preparation of the Unit Tracking Charts for health services interventions reflect this capability.

The visit to Masaken Helwan MCHC has clearly shown us the great efforts of the IEC Unit personnel under the leadership of Dr. I. Missak and Mrs. Ekbal Hanna. A major achievement of the project is the development of supervisory checklists for monitoring the health education component of various health activities. Their efforts provided a more clearly defined agenda for health education in the Project. An additional achievement was the delegation of supervisory activities to governorate and zone levels.

Implementation of health education at the health center level has greatly benefited from on-the-job training as the Team observed in Masaken Helwan. To avoid monotony from excess repetition the team recommends the development of wider variety of health education messages than presently available to be used throughout the year. Innovative ideas in health education should be encouraged especially those which involve the community, such as: Knowledge competition or quiz contests among clients of MCHC, drawings and posters by school children, slide presentation reflecting facts about the neighborhood or local community, The aim is to achieve a greater

degree of client participation in contrast to externally prepared, "canned" messages on tape, slides and magnetic boards. For example, mothers could be invited to explain to others how they train their children in good health practices and to demonstrate how they prepare nutritionally-rich foods in their own homes.

4.3. Is the health education component of the health service improvement interventions meeting its own objectives? If not, why, and how can this be accomplished?

Response. The Team feels that it is too early to form a conclusion as to the effectiveness of the health education components of the health service improvement interventions.

The criteria to assess effectiveness of health education are as follows:

- A. Change from rejection or indifference to acceptance and continued utilization of a specific service intervention;
- B. Health deterioration avoided due to appropriate utilization of services;
- C. Diffusion of health education concepts and information by MCHC clients.
- D. Change in behavior of clients, that is, improved home environment, preparation of nutritious foods, appropriate breast-feeding practices, adoption of family planning, regular attendance for well-baby services, etc.
- E. Change in behavior of providers, that is are they doing health education as planned?

4.4. Are there other health-related activities, not currently performed, which might better contribute to the same objectives? Are there other appropriate health education technologies and techniques, not currently utilized, which should be developed, experimented with and employed?

Response. The two main health-related activities planned for future implementation are community organization and home visiting. These activities are highly interrelated since the first tries to bring the community to support the Center's activities and the second tries to bring the center's activities to the home. Effective health education through home visiting programs eventually changes unmet needs into actual, though ineffective demand. If this demand is not met by the MCH centers and potential clients are rejected or improperly treated, the result may lead to frustration. Community organization becomes crucial in order to provide support to the center to ensure that these demands are properly met. The team suggests careful and simultaneous planning of both activities in order to avoid unnecessary frustrations.

The project uses a variety of health education technologies and techniques which should be carefully evaluated. The team suggests the following criteria for evaluation of presently used technologies:

- A. Simplicity in use and maintenance
  - B. Low cost per client reached
  - C. Cultural relatedness
  - D. Effectiveness in changing behavior
  - E. Acceptability and use by health providers at all points in the delivery process, e.g., well-baby examination, sick baby examination, filling prescriptions, monitoring child development, antenatal care, social worker counseling, distributing food donations, etc.
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4.5 Are the current methods used for monitoring the health education component of the interventions appropriate and sufficient, given the existing constraints of time and manpower?

Response. The present methods used for monitoring the health education component of the interventions are appropriate but require more time to test validity of information gathered. Monitoring of activities could become a very complicated and frustrating activity if generated information is not perceived as useful by the provider, manager or planner of the monitored activity. The team suggests that more efforts be directed to determining what monitoring data are useful to the various levels of health providers. Monitoring efforts need to be more systematic and better planned.

4.6. Are the 'UHDSP's current plans for community organization and participation appropriate and sufficient? If not, what are suggested improvements?

Response. Documents provided and discussions with project personnel and some community leaders in our visit to Helwan reflects the appropriateness of the plans for community organization. Nevertheless, the team feels that the objectives of community organization need to be clearly defined from the project's points of view than they are at present. Community participation includes the concept of both passive and active involvement. As an example of passive involvement, may seek community support for ideas we decide to offer clients. As an example of active involvement we may listen to, respond to, and fulfil community needs.

The Team recommends that consideration be given to the intersectoral approach as a means for developing community organization. This could be achieved by identifying and working with appropriate resources in other sectors, such as social welfare, education, industry, etc. Local councils provide a suitable mechanism for developing this approach. The development of health education committees at the community level also is a useful idea, but linking health education activities to existing organizations, such as the Productive Families, may be even more effective.

4.7 Have the mass media been used effectively to date to inform, educate and communicate the UHDSP's messages? If not, how can this be improved?

Response. It is difficult for the Team to assess effectiveness at the present time since the emphasis of the project on mass media is quite recent. While mass media approaches provide wide coverage at reasonable cost and help create wide public support for the project. However, such approaches may raise public expectations beyond existing means or resources. The Team feels that mass media should be used carefully to advocate the basic concepts of the project rather than to sell or even oversell the project per se.

It is difficult to target mass media to specific catchment areas. Thus its use runs the risk of reaching large segments of the population without access to the project services. In doing so, expectations will be raised and perhaps the public will be confused. Micro media, such as posters, billboards, handbills and pamphlets, targeted to catchment areas should be considered.

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## 5. Evaluation and Statistics

Introduction. The Team found that the project has several different users of evaluation findings. These users of evaluation can be looked at as a pyramid. At the bottom are individual functioning units; somewhat higher up is an administrative unit coordinating the work of a number of units; and at the top is a decision maker managing not only units of the type described but other types as well. In each case, managers or decision makers use evaluations. In the MCH program of Cairo, the same type of pyramid of users is found.

Examples of information wanted from evaluations at the three levels are as follows:

- Unit level: Are my subordinates carrying out the work assigned to them in the proper manner? Is my budget performance improving this year over last year?
- Middle level: Is unit 1 performing better than unit 2? How are all the units under my authority doing this year in comparison with last year?
- Top level: Are Type A units more cost-effective than Type B units? Is there more improvement over time with respect to some factor in Type A units than in Type B units?

The UHDSF functions in a pyramid that is considerably more complex than the simple example. And the involvement in evaluation is correspondingly complex.

The team found that activities in evaluation include at least the following:

1. Assisting the MCH Center managers--physician, nurse, pharmacist, for example--to develop useful managerial evaluation skills.
2. Sensitizing personnel in various levels of government to the importance of evaluation activities for decision makers by involving them in the process. Transferring appropriate evaluation responsibility to zone and governorate supervision.
3. Evaluation of UHDSP activities including those in the MCH Centers in introducing new interventions, e.g. pre- and post-testing of a training module, and those monitoring other activities of project.
4. Preparation of evaluations directed to the needs of personnel at the top of the pyramid, that is, the MOH and USAID.

It is very important that the project continue to give a high priority to doing high quality evaluation; it is hoped that the problems faced in the past will not discourage future action pertaining to evaluation and statistics. The evaluation activity is sufficiently important to warrant the continued attention of the entire staff.

5.1 The present division of responsibilities calls for:

- the Evaluation and Statistics unit to measure the impact of the individual interventions of health service delivery;
- the Organization and Management Unit (the coordinating unit for the interventions developed to date) to monitor the technical execution of the interventions; and
- the other individual UHDSP units (e.g. Training, IEC ...) to monitor their specific contributions to the interventions.

Is this a reasonable and valid distribution of responsibilities? If not, how might this be modified?

Response. The Evaluation and Statistics Unit, headed by Dr. Soad Wahba, is responsible for a variety of statistical activities and evaluation activities focused around the collection of utilization data from the newly renovated centers and various approaches to ascertaining the impact of the implemented interventions. The shortage of staff, the difficulties in getting field data collected, and many other problems have made many obstacles for the unit in conducting its work. In spite of all these problems, the Team found that the service utilization data prepared by the unit was very well done.

The Team proposes that the evaluation and statistics measurement activities in the project be grouped into the following categories:

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- |          |   |
|----------|---|
| • Impact | A. Utilization of services                            |
|          | B. Behavioral changes in clients and health practices |
|          | C. Health status changes in population                |
|          | D. Costs of health delivery                           |
- 
- |              |   |
|--------------|---|
| • Monitoring | E. Operational steps in implementing interventions. |
|              | F. Observations of health worker techniques.        |
- 

The Team proposes that the Evaluation and Statistics Unit concentrate its resources and activities on Utilization of Statistics (A) and that the

proposed contractor in evaluation research concentrate on behavioral changes (B), health status (C), and costs (D)

The Team proposed that all project units share in the responsibility for monitoring activities (E and F).

5.2 Have the indicators of health service improvement, associated with each intervention, been specifically enough delineated? If not, what are suggested alternatives?

Response. The role of indicators in planning is to enable an assessment of movement toward project goals and/or objectives affected by the project. Typically a general objective is accompanied by a series of sub-objectives and indicators, which are tied closely to the sub-objectives. If the sub-objectives are appropriate, then indicators may be evaluated by several criteria. They should reflect movement, or lack thereof, toward project goals. They should be in a quantified form so that comparison within the project over time or across projects are possible. When used for evaluation, they should induce appropriate behavior. They should reflect movement caused by project policies rather than external factors, if at all possible. They must, of course, be clearly delineated and appropriate data must be available. It is also desirable that they be easy to construct and readily understandable.

The sub-objectives for health service utilization and health service improvement and their implicit indicators reflect many of these criteria. However, they should at this point be reassessed and clarifications made.

A number of questions have been raised by the indicators employed or in discussion with UHDSP staff. The following points are directed to these questions:

A. Accuracy of data

- o obviously all data are not of the quality desired by a researcher or an evaluator. Nevertheless, it is sometimes necessary to use flawed data.

- If data are inaccurate--typically overstated or understated--it still may be possible to use them to discern movement toward a goal.
- Often the use of flawed data induces data collectors to improve the quality of data.
- Concerns about data flaws should be indicated--perhaps in a footnote--when such data are used. See also Section 5.6.

#### B. Baseline

When changes over time are examined, the choice of the base period may well influence the outcome. For project evaluation, four (4) base periods come to mind:

- Prior to the beginning of renovation  
This may be the most desirable basing point although, since it is several years ago, changes in other factors such as catchment area population may be reflected in subsequent data.
- Immediately prior to opening of the renovated center.  
If utilization declined during the renovation process, the use of this period may overstate the change.
- The early period after the renovated project opened.  
Use of this base period probably results in an understatement of the change. When the researcher or evaluation must choose between an indicator that is known to overstate the result and one that is known to understate the results, a conservative approach is to choose the one that understates the results.
- The later period after services are stabilized in the center.

C. Source of baseline data

In addition to the types of baseline data discussed in B., often there are external data measuring the same factor.

- External data are useful in showing how the project relates to another or to a larger community.
- For purposes of examining impact, in most cases it is preferable to use earlier internal data rather than external data.

D. Consistency

It is essential to adopt guidelines and apply them consistently

- When this is done, the direction, if not the absolute measure, of changes over time are appropriate.
- It will be necessary to aggregate data over centers so that like measures must be used.

E. Absolute and relative indicators

Many measures, e.g. utilization, may be set forth in either an absolute form or as a proportion. Both are necessary for purposes of evaluation. The use of a proportion requires the specification of an appropriate denominator or population. The team recommends the use of the catchment area population. Reasons for this are:

- This is the appropriate area of responsibility for the MCH Center in the minds of MOH administrators.

- It will be possible to develop reasonable population estimates, in the aggregate and by age, for this area.
- It will possible to note external factors for example, the opening of other health service facilities, environmental problems, rapid changes in population, and other factors that might affect outcomes.

The Team recommends that the project staff review the objectives and accompanying indicators.

The product of the review should be restatement of:

1. Objectives
2. Sub-objectives
3. Associated indicators

The team felt that several measures listed by the project staff were particularly useful. These involved both prenatal and well-baby visits. Since there was little cultural support in Egypt for either of these, it was felt that increasing utilization, for them reflected increased confidence in and utilization of the center. (Then, too, these visits are not influenced by periodic national campaigns as immunizations are.) On prenatal visits it was felt that both the number of pregnant women seen once and the average number of visits was useful. The number completing the protocol, as set forth as a sub-objective, is also important, but if relatively few women complete it, it may not be a sensitive indicator.

5.3 Given existing time and manpower constraints, are the evaluation criteria enumerated in the current revised "Implementation Plan", appropriate and applicable? If not, how should they be amended?

Response. Evaluation criteria enumerated in the current revised Implementation Plan are divided into two categories: operational and impact. The question of appropriateness and applicability depend, of course, on the use to which these results are put. The team has presumed that the purpose of these particular evaluation measures is to assist the UHDSP staff determine whether the interventions are working out as intended. If not, then the measures indicated in the Implementation Plan would provide the basis for redesign of the interventions over the next three to six months.

One example of the proposed approaches is the following:

- **Operation**--review medical record files of past week of all children treated in Sick-Baby Clinic. Of children seen for diarrhea, determine percentage treated with ORT.
- **Impact**--review medical records of children treated for diarrhea with ORT over past 2-week period to determine percentage of cases not responding to ORT which required referral for further measures.

Many other examples could be cited.

For the most part the team felt that the operational measures served the assumed purpose of determining the success of the interventions in affecting MCH practices. It was not felt that the impact measures were equally successful.

5.4 Is it a requisite for the UHDSP to "institutionalize" an improved evaluating capacity within the MOH as part of this Project? If so, at which levels (i.e. Health Center, Zone, Governorate) and within which offices at the designated levels? How might this institutionalization be best achieved?

Response. The project paper (October, 1978) says that one of the main elements of the project is the "developing within the MOH of the capability to perform on a continuing basis, assessments of the health sector designed to provide the data and information required to plan, implement, and evaluate delivery of health services which are more relevant to the needs of consumers".

Thus, there would appear to be a clear mandate to "intititutionalize an improved evaluation capacity within the MOH."

One target of the goal to improve evaluation capacity is surely the MCH Center staff. It was observed in Question 5-1 that evaluation served the purposes of decision makers at all levels. Thus, the management capacity of the Center director can be increased via the process of assisting him to develop some basic evaluation tools e.g. techniques for monitoring medical record keeping, drug records, etc.

Intitutionalization of the evaluation capacity at levels other than that of the MCH Center staff has been difficult. Nevertheless, it seems essential that the UHDSP staff routinely attempt to sensitize personnel at the various government levels to the usefulness of evaluation for their level of decision making. When various functions are turned over to the zone, supervisors need to be able to carry out their own evaluations.

In one sense the very existence of the UHDSP reflects the fact of prior overall evaluation of primary and preventive care in the MCH setting. The conclusion from many previous evaluations has been that this type of care is efficacious and cost effective. And the project, during its lifetime, continues the process and in the Egyptian environment presumably reinforces previous findings.

5.5 Given existing time and manpower constraints, what is the minimum effective coverage which will still meet the evaluation demands of the Project?--i.e. in how many centers do we need to evaluate impact of the Interventions on health service in order to answer the big issues of national replicability on the basis of cost/effectiveness, etc., which the UHDSP must address by its conclusion?

Response. At the present time there is not the capacity to carry out cost effectiveness studies of the UHDSP centers since such studies require the comparison of two approached in which either costs or benefits are similar.

The need for cost related studies will bring about pressure to carry out studies on a limited number of renovated and functioning MCH centers. Nevertheless, the larger the number of centers included, the more confidence can be placed in such studies. If a small number of centers are used as a basis for such studies the more important becomes the issues of the character of the center and the population it serves. That is, to what extent is the center (or centers) representative of the whole set of UHDSP centers? One way of addressing the question of representativeness of a center is by means of information on the catchment area it serves. There is further discussion of this in Question 5.6.

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5.6 Does the acknowledge inaccuracy of the present method by which health data are collected and recorded within the existing MOH structure require that the UHDSR devise and implement an entire, modified system, for statistical collection, even at those levels in which we have not been, thus far, immediately involved (e.g. Health Bureaus)? If so, how can this be achieved within our constraints? If not, how can we draw meaningful conclusions from the presently available data, whose accuracy is suspect?

Response. There are considerable difficulties in using much existing data for evaluation purposes. For example, although it appears to be almost self-evident that the most important single measure of the overall effectiveness of MCH programs is the infant mortality rate, it is also the case that there are two types of problems associated with the use of such data. The first issue relates to the reliability of the data. It is well known that the Egyptian infant mortality data understate the true infant death rate. Secondly, the infant mortality rate, which is a proportion that is relatively small, requires a large sample if changes are to be determined to be statistically significant rather than a random happening. Thus, it is difficult to determine whether or not a change in the infant mortality in an area as small as the catchment area of an MCHC reflects a real, or statistically significant, change.

Nevertheless, the team proposes that the catchment areas of MCH centers should be defined and described as accurately as possible. Description includes the population (total and by age), the suspect mortality rates, socio-economic characteristics, other major health care providers, etc. It is probably inappropriate for the UHDSR to "devise and implement" a data collection scheme. On the other hand, it probably is the role of the UHDSR to "sell" the notion that the catchment area is the proper base to use in understading and assessing

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the role of an individual MCH Center as well as the base from which to assess individual health facility adequacy. Information on the catchment area could be used when considering how representative a particular MCH Center is, the question of demand, or other issues. Zone supervisors will need, in addition, to examine overall data on the basis of their entire zone.

The implication of this is that data even when suspect are not thrown out; they are used cautiously with explicit reservations; the need for improved data is stressed. Data internal to the MCH may be used to shed light on registration data. At the same time, conclusions are drawn from such data only with great caution.

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6. Center for Social and Preventive Medicine

Introduction. The multidisciplinary Center for Social and Preventive Medicine (CSPM) is given a very high position and great responsibility by many people interviewed by the Team. Many people are seeing the CSPM as the final, most significant institutionalization of the great work done by the Urban Health Delivery Systems Project (UHDSP). The CSPM is intended to carry-forward the development of new ideas, new understanding, new techniques, and new capabilities for solving ambulatory care problems in the health sector of Egypt.

This great responsibility for the CSPM is considered by the Evaluation Team to be a very difficult one for any single center or group to fulfill. There are very few models or examples anywhere in the world to guide the developers of the CSPM. The Team believes that even without the many difficulties experienced in the construction and in preparation of the planned services, the whole CSPM effort would undoubtedly have experienced many obstacles.

The joint-working arrangements between the University of Cairo Faculty of Medicine and the Egypt Ministry of Health (MOH) are essential to the success of the endeavor. The similarities and differences between the Faculty and the MOH as participants in the development of the CSPM are very important to be considered. Many significant aspects of the approaches and organization of the two groups (Faculty and MOH) will affect the development of the CSPM, for example:

- Health Sector Development--MOH sets standards of service and regulates the operation of all providers; the Faculty (and the Ministry of Education) set standards of education for health professionals.
- Staff Operations--MOH operates under civil services requirements and rewards are based on administrative and clinical service; Faculty operates within the Ministry of Education system with rewards based on scholarly service.
- Facilities and Services--MOH operates services geared to all members of the public who require service, providing these services mostly free or greatly subsidized; Faculty provides service as an instrument for the educational process and to permit the expansion of medical knowledge through research.

The activities of the CSPM, starting in 1978, have involved attention to both hardware and software. Hardware includes the building programs, designs, equipment specifications, construction, and commissioning. Software includes the teaching curricula, research protocols and agenda, and community service programs. The CSPM progress thus far is the result of hundreds or even thousands of hours of effort by many people in developing hardware and software. These participants have often also had many other responsibilities to attend to outside the scope of the CSPM. The additional assistance of outside consultants has been very limited in the software development due in part to the feeling by the Faculty that the endeavor was best conducted with contributions by the eventual Faculty participants in the CSPM.

The responses on the following page are presented for review by the Evaluation Steering Committee to its single CSPM issue.

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6.1 Has the CSPM achieved reasonable progress to date in fulfilling the timetable of activities resulting from its special external evaluation, performed in early 1983? If not, what are the main deficiencies and how might they best be remedied, given existing constraints?

Response. The external evaluation of early 1983 produced a report containing findings from evaluation studies and a total of 14 recommendations (found on pages 12-13 of the CSPM evaluation team report). These recommendations are basically of two types: action items with suggested completion dates and proposals as to style or philosophy of approach for work on the CSPM. The following response contain the preliminary findings of the Internal Evaluation Team concerning progress of these items (action items are grouped together first, followed by recommendations as to style or philosophy of approach):

Action items

1. All parties concerned should make every effort to assure that the CSPM construction is completed and ready for opening by January 1986.

Response. The Team found that much effort is being given by all parties concerned with construction to keep on schedule. The complex nature of the construction will require that every effort continue to be given in keeping the schedule up to date. Estimated construction time is 24 months once construction starts.

2. Final equipment list should be completed by December 31, 1983, so that bidding and selection of equipment can be finalized by October 1984.

Response. The equipment lists are behind schedule and the remedy selected by the project staff was to engage services of a new equipment consultant who will begin work in February. There also will be need for appointment of an equipment procurement or, under certain circumstances, through use of the U.S. general services administration supply service for the purpose of arranging off-shore purchases of medical instruments and equipment. These steps are going to be difficult to complete by October 1984.

3. The individuals who are responsible for the CSPM curriculum in Pediatrics, Maternity Care and Family Planning, Public Health and Nursing and the Director of the Third Education Project (Medical Education Center) should continue the planning process with emphasis on integration. A final report should be completed by October 1983.

Response. The faculty has continued in curriculum development efforts under the coordination of the Medical Education Center. The faculty reported to the Team that it is about six (6) months behind schedule in its efforts to complete the integrated curriculum. Many obstacles have come in front of the faculty, including unfortunately the loss by theft of an entire section of the proposed curriculum from the automobile of a participating faculty member.

4. A task force should be appointed to continue the planning of the curriculum for continuing education and in-service training programs with an emphasis on integration. It has been suggested that the the Task Force should be comprised of respresentatives from the MOH and from CU/CSPM. The MOH should be representated by the Director of the Department for Human Resources and Training, the Director of the Department for Primary Health Care, and the Director of the Department for Manpower and Research. The CU should be represented by those faculty members responsible for Pediatrics, Maternity and Family Planning, Public Health and Nursing, plus the Director of the Third Education Project (Medical Education Center). Since the UHDSP has had considerable experience in this area, they should also have a representative on the task force..

Response. The Team learned that the work on development of curricula and service education is proceeding somewhat slowly. The task force proposed by the 1983 evaluation has not been apponted up to the present.

5. Prior to the construction of the CSPM building, on-the-job training should increase in MCHC's which have been upgraded and readiness determined by a joint CU/MOH evaluation team. The training will be initially for postgraduates working on their mater's degree and MOH professional in-service training. The date to begin this is October 1983.

Response. The development of the proposed training for postgraduates was belayed by the problems in completing of the MCH renovations. After the university teaching year started in October 1983, the possibility of begining such a program was delayed until October 1984. The faculty were unable to begin any of the elements in the proposed program up to now. No joint CU/MOH evaluation team was convened as yet.

Recommendations for Philosophy and Style of Approach

6. The CSPM's focus on social and preventive aspects of health services requires integration in planning and implementation and utilization of the multidisciplinary health team. This component should accelerate its planning efforts. In monitoring the planning progress, the Executive Council should make sure that the service program meets the need not only of the CSPM catchment area but also the needs of other MCHC's and GUHC's.

Response. The CSPM Executive Council is still formulating the program of service so the team was unable to determine the extent to which this recommendation was included in their work.

7. Consideration should be given to designating one or more of the MCHC's (when upgrading is complete) which could be utilized to facilitate CU's participating in the provision of services while MOH continues to be responsible for administration.

Response. The team was told that no additional action has been taken in arranging for CU participation on MCH Center programs up to now due to delays in completion of renovations.

8. In the developing relationship between the MOH and Cairo University, the personnel policies of each must be respected. The following considerations should be explored:

- (1) Special recognition for MOH/MCH health professionals who attain a high level of performance by standards specified by the Executive Council of the CSPM.
- (2) The establishment of a teaching role for MOH/MCH clinical staff members who, in addition to demonstrating clinical competence, also demonstrate a background of knowledge and teaching ability to qualify as field instructors in MOH centers.
- (3) Recognition of CU faculty members for demonstrated competence and commitment in MCH.
- (4) Credit for MOH professional staff members for continuing education.

Response. The Team learned that various discussions were held during the past several months concerning this recommended mutual recognition program. In general, the Faculty has expressed a willingness to arrange

such a system for qualification by MOH staff members but up to now individuals have been so recognized or qualified by the CU.

9. With five years of experience in developing education and implementing continuing and on-the-job training for MOH health professionals, it seems essential to further develop the collaborative planning and working relationship between the CSPM personnel and the UHDSP as a means of upgrading the MOH programs via the CSPM.

Response. There remains an interest by the Faculty in continued participation in MOH programs, but no new initiatives by the Faculty were started since the time of the 1983 evaluation that further develop this collaborative planning and working relationship with the MOH.

10. UHDSP and MOH should continue their support of the planning process via the CSPM office, and especially the recent addition of professional personnel to assist CU faculty and to provide motivation as deemed appropriate.

Response. The CSPM office has continued to exercise leadership in the expansion of arrangements for the CSPM program. The professional staff of the CSPM has clearly provided motivation, assistance, and support in many of the continuing areas of UHDSP cooperation with the Faculty. The UHDSP support of these resources for the CSPM and the proposed additional equipment consultations which are scheduled for the coming weeks are important to the continued growth of the CSPM program.

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11- Building on past consultations and experience in the UHDSP and experience in Cairo University, there should be a concentrated effort given to developing in the CSPM a record system which not only supports patient care but data collection for research.

Response. The Team learned of a new research agenda which was outlined by the Faculty for the CSPM during the past few months (the CSPM is arranging for the Team to receive a copy of the agenda). The record systems and other technologies required for proper research data collection and analysis are apparently contained in that document. The Team learned also that the Faculty proposed to develop a computing capability in some arrangement with resources within the CU capus to support the data handling required for research.

12. Consideration should be given to developing collaborative research with scientists from other countries with similar interests.

Response. The Team learned that the Faculty desire to establish a series of working relationships with other teaching and research institutions. The Team encourage such linkages of this type as are deemed appropriate by the Faculty. The linkages could provide additional support to the CSPM participants in developing a philosophy and approach to community-based education and research through exchanges of scientists and research findings.

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13. Serious considerations should be given to continuing the U.S. relationships not only during this formative period, but also after the CSPM building is completed. We also recommend that the CSPM Executive Council develop a position paper on these potentialities.

Response. The Team learned that the Faculty desire additional U.S. linkages with other institutions. During the past year, however, no additional linkages were developed.

14. It is proposed that the CSPM Executive Council continue to function after the end of the project in order to maintain administrative continuity and assure that the special focus and philosophy of the CSPM continue.

Response. The Team believes that the CSPM Executive Council fully expects and plans to continue its operational activities following the completion of the UHDSP Project.

## 7. Construction, Renovations, and Equipping

Introduction. The program of construction, renovations, equipping, and maintenance in the UHDSP is very complex. A very large number of unexpected obstacles were found during the life of the Project in trying to complete this work. This area has caused more delays and more extra problems for the project staff than all of the other areas combined.

The Evaluation Team discovered nearly twenty (20) separate groups outside the immediate staff of the Project that implement or will in the future implement parts of this work. These groups are summarized as follows:

1. Consultant to the Executive Director for MCH renovations
2. Architect-Engineer (A&E) for the MCH renovations
3. Construction contractors (for each zone) for MCH renovations
4. Architect-Engineer (A&E) for the GUHC construction
5. Construction contractor(s) for the GUHC construction (future)
6. Architect-Engineer (A&E) for the CSPM construction
7. Construction contractor(s) for the CSPM construction
8. Planning Committees for Program and Equipment in MCHC
9. Planning Committees for Program and Equipment in GUHC
10. Planning Committees for Program and Equipment in CSPM
11. Equipment specification consultants for MCH
12. Equipment specification consultants for GUHC
13. Equipment specification consultants for CSPM
14. Overseas equipment procurement agent for MCH
15. Overseas equipment procurement agent for GUHC
16. Overseas equipment procurement agent for CSPM

17. Equipment rebuilding contractors for MCH
18. Health sector assessment construction specialists
19. Medical equipment maintenance center specialists

The exact nature of each group's responsibilities is not yet clear to the Team. It is clear that many Project Staff members in addition to the MOH equipment and maintenance director have participated frequently in the coordination and removal of obstacles facing these groups.

Facility Development Stages. Many steps are required in the work of completing each facility. These steps are complex and involve the participation of a number of people from many agencies. It is helpful to group these steps into stages. The stages make clear the progress of the project. The team's review identified four (4) major stages for the facility development process as follows:

- Program Preparation of Architect and Engineer (A&E) request for proposals, advertisement and selection of A & E; negotiation of contract with A & E, identification of service program requirements; preparation of workflow, equipment, and functional space requirements; inspection of site features; if applicable in renovations, assessment of structural capabilities and faults in existing facility; preparation of program documents; preparation of project tracking system.
- Design Development of design concepts layout of facility spaces; preparation of preliminary structural, mechanical, electrical, and other designs; preparation of

final drawings; preparation of construction (or renovation) bid documents and bid procedures; development and furniture specifications and procurement documents.

- Construct Advertisement of bidding to construction contractors; receiving and rating of bids; selection of contractor(s); negotiation of contract(s); startup of construction; supervision of construction; completion of construction; inspections of building; procurement of equipment and furniture; connect electricity, water, and sewage; turnover of building to owner; assign departments and functions to spaces.
  
  - Commission Develop final commissioning schedule; deliver install, and setup equipment and furniture; provide training materials for equipment useage; finalize staffing listings and confirm/availability of all staff required; assign staff to spaces; give on-job-training to staff in work procedures; deliver consumable supplies; initiate test services in each department; conduct training of service personnel; prepare preventive maintenance schedules; retest all equipment and organize spare parts and maintenance instructions for equipment; monitor and supervise all staff members and ensure zone office participation.
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The project staff especially the OMU were directly involved at all stages in this work. The programming stage was organized and implemented by Dr. Farouk Gaafar. Project staff and consultants were most heavily involved in the Programming and the Commissioning stages. The Commissioning stage was conducted already at several maternal and child Health Centers using a detailed plan and schedule. The formula of steps that must be followed for MCH Commissioning can now be written in details and made available to participating staff assigned to accomplish commissioning work. The research and experimentation needed to prepare the formula for a commissioning packages was a significant achievement of the project. Future MCH Commissioning should not require additional research and can involve groups from the immediate project staff.

The present status of work in MCH centers, GUHCs, the CSPM, and the maintenance centers is shown in Exhibit 3. The progress made so far is very significant. The remaining work stages will be complex, as shown above, so will continue to require attention of staff.

Of particular concern is the remodelling of the MCH centers. The MCH centers are at the heart of the service improvement activities of the project staff. The centers which are still under remodelling can not receive the attention in service system changes that the staff desires to install. The longer these centers are delayed the longer the staff must wait in installing the new service improvement interventions.

The MCH centers that are still in the hands of the construction contractors are at a final stage of work. The work is relatively small in amount for most of the units. This small amount of work is further divided among many different types of workers in the construction trades. These remaining trades include the following:

Exhibit 3

Facility Development Status

Stages of Development

Unit	Program		Design		Construct		Commission	
	Com- plete	Re- main	Com- plete	Re- main	Com- plete	Re- main	Com- plete	Re- main
MCH Centers*	22	0	22	0	6	12	4	14
GUHC Remodel	1	0	1	0	1	0	0	1
New	8	0	8	0	0	8	0	8
CSPM	1	0	1	0	0	1	0	1
Maintenance Centers	1	0	3	0	0	3	0	3

\* Note: 4 MCH Centers removal from work due to extreme problems.

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- Carpenters
- Painters
- Electricians
- Plumbers
- Steel workers
- Aluminium workers
- Ceramic tile workers
- Concrete/cement workers
- Wall panel applicators
- Floor surface epoxy applicators
- Laborers

The work in all but two of the centers involves small finishing jobs in all these trades and perhaps a few more. One of the centers (Tera Bulaquia) requires additional construction work which will take a longer time. The exact completion dates for renovations are contracted to be at the end of February 1984 for all the remaining 15 centers. The possibility exists the unavailability of one or more of the above trades could delay the completion. All trades of workers must be finished before the building can be given over to the MOH.

The GUHC and the CSPM are planned to be through construction equipping, and commissioning by the January 1986 completion of the project. Schedules call for GUHCS to be built in 18 months and the CSPM to be built in 24 months from the date started. The Team could not find data that suggested any earlier completion dates for these units.

Equipping. The work of equipping the MCH centers must build on the original construction programs for utilization of spaces in each center. Also, the equipping must consider the exact arrangement of buildings as they were actually built. The Team was told that the differences between the original program and the as-built configuration are great in many cases. At this time the project staff has no access to plans and drawings of the exact as-built arrangement of the MCH centers nearing completion. The equipping of MCH centers was originally planned to give highest priority to rebuilding of all serviceable equipment in each center. Several surveys were taken by project staff members to identify such serviceable items needing painting, etc. In fact, much rebuilding of equipment has occurred already under contracts with various agencies. The amount of equipment to be purchased either in Egypt or overseas still will be quite large.

The project staff uses the services of the MOH director general for supply and outside consultant specialists to prepare needed documents for procurement of these commodities. The equipment lists and specifications are still being prepared for all remaining facilities. These lists are required for procurement. Equipment procurement requires many months of processing. This processing will likely bring the equipment to the MCH centers several months after each unit is completed. Plans now are for existing furniture and instruments to be placed in the centers to permit initial operations. The delay until full equipment is present so that the full commissioning process used by the project in the first three centers may be several months.

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7.1 How can the remaining MCHC renovations be best handled at this time, given all the existing constraints? Would the appointment of a contracts manager, for example, as has been done for the CSPM and the GUHC's, be a feasible step at this juncture?

Response. The consultant on MCH construction, Engineer Hani, has been assigned many responsibilities as Construction Coordinator related to the MCH renovations. The Project now has Construction Coordinator in all facility categories: MCH, GUHC, CSPM. The full duties of the Construction Coordinator should probably include both field observation of the works and written presentations to the project staff members as to areas of progress. The need to coordinate remodelling with equipment and with commissioning (including staff training and interventions) means that all staff members in the project need to know what are the latest schedules and problems in the unfinished MCHs.

Commissioning stage for MCH Centers will require careful attention. The Construction Coordinator can also be of great help in this area.

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7.2 Equipping the newly-renovated MCHC's has proven to be a laborious and lengthy task. Can the Evaluation Team suggest a more effective approach than the one presently employed, based on available resources, in order to facilitate this process?

Response. An integrated approach to commissioning of facilities includes: locations, identification of equipment scheduling the proper delivery, installation and set-up of equipment, and the establishment of a system of user instruction and systematic maintenance is required for the MCH's. The Team believes that the Commissioning research and experience in the first MCH Centers can be documented and made useable by a commissioning Team. The equipment-related steps in commissioning are now divided among several project staff members. The needs for this equipment work will increase in the future and the project staff members will be obliged to reduce further attention to their main areas of work to help in solving these equipment problems. The equipment local procurement alone is going to take greater amounts of time in the future.

The Team favors the proposal by Dr. Simon and Gafaar that an engineer specialist be engaged to oversee this work on at least a half-time basis. The responsibilities as outlined in their 21 January 1984 are considered by the Team to cover the most important areas of attention. The idea of expanding the duties during the coming year to include also the GUHCs and CSPM equipping and commissioning processes is a natural and appropriate continuation of the duties started on the MCHCs.

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7.3 What is the view of the Evaluation Team regarding the need to "institutionalize" within the MOH the capacity to develop "procurement-ready documents", specifically for off-shore equipment purchases in the U.S.? If this need exists, how can it best be fulfilled?

Response. The Evaluation Team has examined thoroughly the various project agreements and contracts made available to us concerning this issue. Furthermore, we examined the reports of previous project evaluations in this regard. We are not able to find any requirement or suggestion that such a process of institutionalization in off-shore procurement was intended to occur. The constantly changing rules of procurement in the two governments--Egypt and the U.S.A-- would make it very difficult for the project to accomplish much more than a basic familiarization process with MOH staff members. In fact, the efforts of Dr. Ramses Mina to encourage observation and even participation in the recent equipment document preparation efforts has included the following agencies: MOH supply staff, MOH maintenance service staff, Ideal staff members (government equipment supply system), and University of Cairo supply staff members. Further, Dr. Ramses and Mr. Neal now have prepared what is apparently the most complete catalog reference library on U.S. medical equipment in the city under the work of the project. This degree of institutionalization was seen by the Team as more than sufficient for purposes of the project's responsibilities for leaving an installed-capacity at end of project time.

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## 8. Conclusions

- 8.1 Are the UHDSP's original scope and objectives still valid and viable in light of our past 3 years' experience. If not, what are more valid, viable, and quantifiable objectives which reflect health service improvements and take into account the given constraints?

Response. In the Project Paper, dated October 1978, the goal and purpose of the Project are stated as follows:

Goal: - The project contributes to the overall goal of improving health status of the Egyptian people. Forty-four percent live in urban areas, the majority are in the low income segment.

Purpose: The purpose of this project is to assist the Government of Egypt to make the existing urban health care delivery system more accessible and effective so that it better supports efforts at health improvement in the project area and could form the basis for Cairo-wide and other urban area replication.

The evaluation team feels that these statements are still valid and that they reflect the basic focus of the project. Since these statements are somewhat general in nature, they are difficult to use in their original form for the purposes of defining and assessing the work of the project. Before considering how these original statements might be made more specific it is useful to consider the general nature of goal setting and the use of indicators.

### Background

Typically, large or overall objectives are determined at an early stage by persons other than project managers. Often, as in this case, it is appropriate to specify more concrete objectives and to break the overall tasks into more manageable or more understandable components. A set of sub-objectives

should be such that if all sub-objectives were met, the over-all objectives would also be met. Whenever possible, a sub-objective is accompanied by an indicator. Several criteria for indicators and/or sub-objectives may be observed. The indicator, preferably quantifiable, should be sensitive to the implemented changes and not be readily manipulated. Since an indicator is likely to be used as an evaluation tool, it is important that its use in this capacity not stimulate perverse effects. For example, a sub-objective to reduce referrals to secondary care may influence the staff to avoid referrals even when such referrals would be appropriate. If at all possible, though in practice this is often difficult to achieve, the indicator should reflect only the specific policy changes and not other extraneous factors. Of course, it is desirable that data for the indicator be easy to obtain and that the indicator be readily understood. But the most important element of a good indicator is that it reflects movement toward the goal in question.

When it comes to specifying a sub-objective, it is essential to be precise. How is the measure defined? What is the baseline measure? What time period is involved? The time period is particularly important when an objective specifies rates of change. Is the specified growth rate over a month, a year, or what period? The inclusion of a number in a statement of an objective does not necessarily imply measureability. For example, the objective "To increase the awareness of women in the childbearing years of family planning methods" has no meaning without a definition of awareness and a means to measure it. Another issue relevant for growth rates is whether or not the appropriate rate is expected <sup>to be</sup> constant over a long period. For example, is a specified growth rate in facility utilization the same during the first year after opening as it is during the second or later years?

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### Specification of the Original Goals

The team believes that the original project purpose and objective, discussed above, are comprised of three essential elements or motifs. These are: (1) improving the health status of urban residents, (2) increasing access to health services, and (3) developing a replicable approach. From these elements, five more specific objectives were derived. Not only was it felt that if all five of these were met, that the project goal and objective would be met, but it was also felt that the project staff had implicitly been addressing all five of these. They are:

- A. To improve the quality of primary health services in urban MCH Centers and General Urban Health Centers (GUHCs)
- B. To upgrade the physical facilities in existing MCH Centers, to construct new GUHCs, and to construct the CSPM.
- C. To improve facility management, including the development of a concern for cost containment.
- D. To develop a closer relationship between the facility and the community.
- E. To develop support for the MCH/primary care approach in the Egyptian health care system.

The Steering Committee paper proposes utilization as an overall objective. The evaluation team sees certain measures of utilization as an indicator reflecting the overall project objective comprised of the components of status, access, and replicability.

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### Overall Indicator

The logical indicator of overall success of the project would be some measure of life expectancy or mortality, with infant mortality the most likely candidate. That is, if the project succeeds in improving health status, this improved status would manifest itself in the infant mortality rate. There are, however, difficulties associated with the use of this rate as an indicator. The major difficulty is that statistical evaluation of changes in rates such as the infant mortality rate must be based on large populations. Any given MCH Center can not be expected to affect infant deaths outside of its own catchment area, which has too small a population to allow for statistical testing over a short period of time. When many MCH Centers have been renovated and the interventions implemented, the population base will be considerably larger than now and it should be possible at that time to employ the infant mortality rate as an indicator.

At the present time the best overall indicator of project effectiveness appears to be that of facility utilization. There are, however, several problems with the use of utilization as an indicator. Utilization is, of course, a better indicator of access than of health status since the relationship between utilization and health status is tenuous. There is some concern that MCH Centers will reach their capacity and be unable to increase utilization. In addition, this measure is subject to manipulation and/or misreporting. On the other hand, utilization data are readily obtainable and easily understood; using this measure probably results in incentives for appropriate behavior at the facility level.

The team believes that the appropriate utilization measures as indicators of movement toward the overall goal are those relating to prenatal and well baby care. These were selected because it was felt that these visits were not closely tied in with Egyptian cultural patterns, i.e. that the

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facility staff had to work to attract people to the Center for these services. It was also felt that there were few, if any, non project stimuli (such as national campaigns) affecting these visits. Other utilization measures, such as those pertaining to family planning utilization, might well serve as indicators of achievement of sub-objectives, but they are less useful as indicators of overall progress than the ones suggested above.

The proposed utilization measures of prenatal and well baby visits need to be set forth both in terms of the absolute number of such visits and as a proportion of the relevant population in the catchment area. It would be useful to know what percent of women seen complete a particular protocol; however, if that protocol is defined too rigorously, very few women will have completed it. (In this case, the indicator would not be sensitive to change in actions at the Center.)

In the case of prenatal and well baby care it is felt that both the number of first visits and the number of subsequent visits during the time period defined would be important. The number of first visits indicates the total number of women or babies seen during the period. The number of additional visits provides information from which to calculate the average number of visits for each type of client.

#### Sub-Objectives

One of the characteristics of sub-objectives for the UHDSP is that there are sub-objectives to be defined for several operational levels. The project staff needs to consider sub-objectives for itself, for individual MCH facilities, for the Zone, the Governorate, and the Ministry of Health.

In other words, it can be said that a sub-objective for the project is to convince these other actors to adopt and use sub-objectives appropriate to achieving project goals. The attached foldout diagram (Exhibit 2) sets forth and illustrates some appropriate objectives at the various levels. It might be noted that the Objective C, to develop support for MCH and primary care, discussed above, addresses this issue.

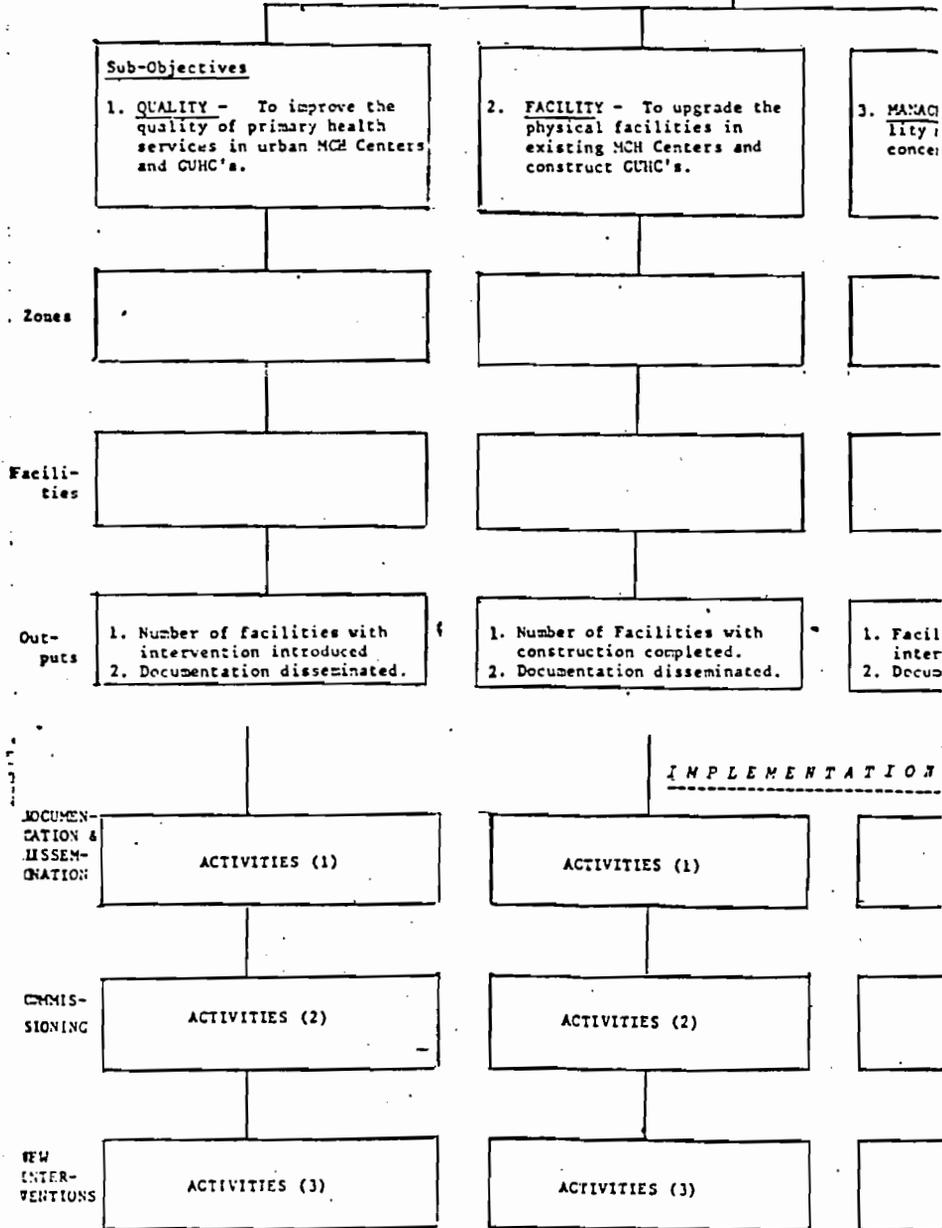
When we turn to sub-objectives under Objective A, related to the improvement of primary health services, it is clear that the project staff believes that the on-the-job training improved the quality of care. Sub-objectives might well, then, pertain to the number of persons trained, the number of centers in which on-the-job training programs were held, etc. At the present time the project goal is to document and disseminate the training package. The goal at the Zone level is to train personnel in a large number of centers and to maintain a high level of trained personnel in centers where the staff has received on-the-job training. The facility goal is to maintain (or obtain) a well trained staff. Examples of indicators for these could be set forth as follows:

A. Zone Indicator

1. The number and proportion of MCH personnel in the zone who have received on-the-job training.
2. The number and proportion of MCH Centers in which the entire staff received on-the-job training.
3. For the centers in which on-the-job training has been carried-out, the proportion of the staff at any given time who have actually been trained.

**Goal (Hada):** The Project contributes to the overall goal of improving the health status of the Egyptian people. Forty-four percent live in urban areas; the majority are in the low-income.

**Objective (Charad):**  
 To increase utilization of primary care and maternal and child health care services in urban areas.





B. MCH Center Indicator

1. In an MCH center in which on-the-job training has been carried out, the proportion of the staff who completed the training.

C. Project Indicator

1. Existence of a training package available for distribution.
2. The number and proportion of MCH centers, renovated or unrenovated, that have made use of the package.

For other sub-objectives, a similar set of indicators can be set forth. It is important that the project staff focus on appropriate goals for the present time, rather than sub-objectives that belong appropriately at another level.

Using the Objectives Chart

The UHDSP is a highly complex project with many diverse elements. The evaluation attempted to help re-order and structure these elements to facilitate project management. The Team suggests that the Project Objectives Chart (Exhibit 2) can serve this purpose. The Chart can provide a basic framework for the remaining life of the project. Starting with the original goal (Hadaf) and objectives (Charad) of the project at the top of the Chart, the Chart shows levels down through sub-objectives, targets (Khoreid) at the zone (Manteka) and facility level, to specific project products (Entag Al Mahshruah) and implementation activities (An Ansheta El Tatbeekeha). Indicators (Moasherat) should be developed for each target.

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The Chart provides the project staff with a logical and systematic framework for use in: (1) future evaluations, (2) monitoring work on a regular basis, and (3) reporting on project activities to the Ministry of Health and USAID.

As a framework for evaluation, the Chart provides targets with indicators for measuring performance toward meeting the targets. These targets support the higher sub-objectives, objectives, and goal of the project.

As a framework for monitoring work, the Chart can serve to organize all work to be done in each of the five objective areas through the use of an Implementation Plan. The Implementation Plan already is an established practice of the UHDSP staff. Project activities can then be followed-up through simple reporting and monitoring systems. The Team strongly recommends that the UHDSP weekly staff meetings be reinstated for this purpose. Data on the indicators can be maintained and discussed at these meetings so that the staff can monitor its own progress. The monitoring can be done through the use of the indicators without waiting for periodic evaluations.

As a basis for reporting, the suggested framework is a good way to organize the monthly and quarterly reports required by the Ministry and by the USAID contracts.

In the development of the Implementation Plan, it will be necessary to assign specific activities in each of the five areas to the UHDSP staff units. It is expected that each unit will have a role to play in all or most of the five areas. Structuring the work within the five areas will ensure integration and collaboration. Consulting services to the project can also be integrated into the Implementation Plan under each of the five areas (for example, the pending contract for evaluation studies).

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8.2 What is the status of the recommendations made by ECTOR and USAID (UHDSP External Evaluation) and are these still valid? If not, how should they be modified?

Response. Both the ECTOR study group and UHDSP External Evaluation Team have submitted a set of recommendations on various aspects and activities of the UHDSP which reinforce and complement each other. The two sets of recommendations emphasize the need for more efforts in:

- A. Community involvement
- B. Outreach (home visiting) activities
- C. Management and supervision
- D. Motivation and incentives for health providers

The ECTOR study put additional emphasis on:

1. The need for research to describe the following issues:
  - A. Providers' socio-demographic characteristics and treatment seeking behavior to assist in developing priorities services interventions in various MCH Centers.
  - B. Drug prescription and utilization patterns.
  - C. Factors affecting referral patterns.
  - D. Need-oriented innovative health education program and activities.
  - E. Providers' characteristics which affect utilization
2. Development of methods to upgrade self-care
3. Development of capabilities in health services research especially at the clinic level utilizing the health services research guidelines developed by ECTOR.
4. Development of training manuals for various personnel groups and categories.

UHDSP External Evaluation Team additional recommendations focused on:

- A. Center for Social and Preventive Medicine (CSPM)
- B. Utilization of additional technical assistance through Westinghouse Health Systems
- C. Extending training to other MCH centers and without waiting for renovations
- D. Involvement of zone staff members in training on service interventions
- E. Utilization of out-of-country to maximize its returns to the project

The team views the recommendations of ECTOR and the USAID External Evaluation as reflecting the original goal and purpose of the project and as still valid. While the team praises the considerable progress achieved in implementing some of them, more efforts should be directed to addressing the non-implemented recommendations in those documents.

8.3 Is the present range of UHDSF activities meeting the project's objectives and addressing the priority problem areas? If not, how should their nature and mix be modified?

Response. The present range of project activities meets many, but not all, of the project objectives. However, the team perceives that project activities have been heavily focused on technical or structural and performance aspects of the project objectives. Additional attention needs now to be devoted to social, economic, and cultural activities related to the community and program support objectives as well.

8.4 What should be the UHDSP's geographic and technical scope of involvement relative to its initial concept in order to meet its mandate from the MOH and USAID, but accounting for the real problems and constraints learned from the past 3 years' practical experience?

Response. The Evaluation Team believes that the initial concept of the UHDSP, as expressed in the Project Paper and Project Agreement of 1978 and discussed above in Issue 8.1, remains today as the relevant and guiding concept for the project. The project concept contains elements both of pilot study and of service demonstration. The Evaluation Team believes that most of the attention of the project has been placed correctly on demonstration. The emphasis of a pilot study approach would be appropriate only if the work were mainly experimental, such as by using ideas that were not tested in the international arena of health services development.

Instead, the UHDSP has aimed properly to demonstrate that it is possible to combine services of proven efficacy for use in the Egyptian urban health services system. The Team concludes that demonstration of the packages of hardware and software within the project area of Cairo can and should be the guiding focus for the remaining work. In practice, this focus will mean the following products and procedures are implemented:

- A. In the already opened health centers, the following interventions are to be implemented:
1. Organizational structure
  2. Community outreach
  3. Community participation
  4. Economic treatment
  5. Family planning
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These new interventions need to be "packaged," much as the earlier ones were so that they can be introduced into additional MCH centers by persons from outside the project. The package includes manuals, checklists, etc.

B. The remaining MCH centers currently being renovated will be completed and commissioned as soon as possible:

1. Completion of Construction Stage
2. Completion of Commissioning Stage

If the five new interventions are not ready when these centers are commissioned, a second round will be required. However, as soon as possible, the five new interventions become part of the commissioning process.

C. The process for the newly built GUHCs includes all four steps for facility development (programming, design, construction, and commissioning). The first two steps are completed and the two remaining steps are being started.

D. For the remaining urban MCH centers and GUH centers in Egypt, the project has a two-fold responsibility in the opinion of the Team:

1. To express the value of the primary care approach by describing the benefit of it, for example, cost-effectiveness.
2. To make available the information and insight gained from the UHDSP. This would include manuals describing the necessary steps in renovating a center as well as training manuals.

While the tasks remaining for the UHDSP staff are formidable, the Evaluation Team believes that they can be completed. Supplementary personnel will be required in some cases, as suggested in Chapter 9, Recommendations. Most important, the Team believes that the above Tasks A, B, and C cannot be completed by the project unit staff members alone. The Team emphasizes its recommendation that nearly all steps remaining in construction and commissioning be placed in the hands of governorate or zone personnel. These governorate and zone personnel, with initial training from the UHDSP and with a fixed scope of work for each person agreed to with the governorate and zone Undersecretary and directors-general, then do the work specified in the UHDSP documentation. The Team believes that this arrangement with governorate and zone personnel is appropriate and is consistent with the original concept of the project design.

8.5. Given the UHDSP's starting point, its major tasks and its resources, what is the overall assessment of our progress to date?

Response. The UHDSP was planned and implemented to solve many difficult problems in urban health services. Numerous problems faced by the project had never before been solved or even fully understood elsewhere. The major tasks and resources of the project were kept in balance for most project activities during most of the project life. This very difficult balancing of needed resources with project tasks required predicting obstacles and developing new approaches, often with little, if any, valid information for guidance.

The Team summarizes its conclusions by saying that we found many jewels among the collection of project efforts. These jewels include capabilities and dedication found in project staff members, ideas and processes imbedded in project products, and the spirit of pioneer in the experiments and strategies prepared to find new and better ways to meet health needs of the Egyptian people.

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## 9. Recommendations

Basic Strategy. The team recommends that the remaining period in the project's life should be used for consolidation of project achievements during the past three years. The basic strategy suggested by the team for the remaining period of the project is as follows:

1. Capitalize on experience gained and accumulated in the past three years; document and disseminate this experience.
2. Intensify efforts to implement and/or complete the already planned project activities, for example, the remaining renovations, the construction of GUHCs, the home visiting program, and others.
3. Develop a few supportive or complementary activities that can build on the accumulated project experience and information rather than require completely new experience or generation of large amounts of new information.

Structure for Recommendations. The team recommends that the project continue to use the five objectives implicit in all prior work for the remaining period of the project. In summary form, these objectives have been as follows:

- A. To improve the quality of primary health services in urban MCH Centers and General Urban Health Centers (GUHCs).
  - B. To upgrade the physical facilities in existing MCH Centers, to construct new GUHCs, and to construct the CSPM.
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- C. To improve facility management, including the development of a concern for cost containment.
- D. To develop a closer relationship between the facility and the community.
- E. To develop support for the MCH-Primary Care approach in the Egyptian Health Care System.

The work that the project staff has already done represents a large step toward the defining of subobjectives for the first mentioned objective(A). The other objectives can be translated into subobjectives to accompany those for Objective A.

Summary of Recommendations. The main recommendations by the team are summarized in this section. The proposed steps and explanations for using these recommendations are given in the next section.

A. Quality of Care

- A.1 Develop the Service Improvement Modules of the Commissioning Package, based on previous project research; organize the commissioning process for MCHCs with outside implementation group.
- A.2 Complete preparation of materials related to previously implemented interventions, document, and disseminate the formula. Assign the training process in the formula to zone staff and MOH staff.

- A.3 Prepare to implement new interventions in services: Community outreach, family planning, others. Document and disseminate the training materials.
- A.4 Develop culturally-related, innovative health education approaches; design, develop, and produce IEC materials and messages. Document and disseminate the health education materials.
- A.5 Develop and implement a health service research program in the CSPM to acquire information, orient and train junior staff, and develop relevant case studies for teaching purposes.
- A.6 Develop and implement the integrated curriculum for the CSPM (curricula to include University and MOH training and instruction); during development test portions of it on a small scale in Masr El Kadima MCHC using junior staff members under guidance of the senior staff members of CSPM.

B. Physical Facilities

- B.1 Develop the Physical Facility Modules of the Commissioning Package, based on previous project research; organize commissioning process for MCHCs with outside implementation group.
- B.2 Complete renovations, construction, and commissioning stages for all facilities; document and disseminate the experience.
- B.3 Continue development of facility maintenance procedures and materials; document and disseminate these materials.

C. Management

- C.1 Prepare and implement interventions in management: Organizational structure of MCHCs, economic treatment in MCHCs, other; document and disseminate the experience.

C.2 Develop a capacity in each facility commissioned to do its own problem-solving by providing training and supervision for facility staff members in how to use appropriate techniques.

D. Community Participation

D.1 Conduct a small workshop on "Community Participation in Urban Areas," with wide involvement of experts in the field, to focus on appropriate community participation activities for the project.

D.2 Prepare and implement intervention(s) in community participation; document and disseminate the materials.

E. Program Support

E.1 Plan and conduct a National Conference on Urban Health Delivery Systems to present main issues, problems, and the experience of the project; develop a consensus from the conference on needs for future plans in Egypt. (Consider also a later International Conference to include other countries in the region.)

E.2 Develop a small newsletter that contains news of the project and of primary care-related innovative ideas. The newsletter should be distributed to MCH Center staff members, zone Offices, Governorate Offices, other MOH personnel, University personnel such as CSPM and primary care-related faculty members.

E.3 Prepare and implement additional strategies for developing support for primary care and MCH through use of: radio, television, contacts with health professional bodies, and other appropriate activities.

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A.1 Develop the Service Improvement Modules of the Commissioning Package, based on previous project research; organize the commissioning process for MCHs with outside implementation group.

Response. The Service Improvement Modules for renovated centers have been studied and tested in several clinical settings. These Modules can now be prepared in formats that contain the results from project experience gained in those first implementations. The formats can contain accurate pictures of the purpose, resources, procedures for implementation, and methods of monitoring required to put the interventions into action.

The packaging of these modules should be done with the packaging of the physical facility elements in the Commissioning Package (see Recommendation B.1). The project staff with some outside assistance in preparing the documentation can make these packages available from data now being produced.

The Commissioning Package (including both parts: service improvement and physical facility) can be provided to outside groups for implementation in the remaining centers. One possible arrangement for doing this step would be to appoint a UHDSP staff member or consultant as commissioning team member for service improvements (to include training, service procedures and supervision). This person could join with the Project commissioning person for Physical Facilities. Together, this 2-person team on commissioning would coordinate the commissioning process for the remaining MCH Centers. Most of the actual on-job and facility work would be done by a small team appointed from the zone office, with written agreement from the zone directors-general and the Governorate Undersecretary. The agreement on commissioning would specify exactly

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what steps are to be followed in commissioning and which individuals are to be provided by the participating agency to conduct the commissioning. A short training session by the project staff on commissioning for zone and governorate participants assigned to participate in the remaining project centers will help to ensure a complete understanding of the work to be done.

The timing of the commissioning should be coordinated with the needs for remedying construction problems left after the original, basic renovations. A fixed period of time within the commissioning process is assigned for introducing the staffs to the centers, on-the-job training, and supervision. An additional period of time should be reserved for unexpected special problems in each center. These problems can be taken by the two-person UHDSP commissioning team (perhaps a physician with experience in commissioning and an engineer).

A.2 Complete preparation of materials related to previously implemented interventions, document, and disseminate the formula. Assign the training process in the formula to zone staff and MOH staff.

Response. The programs for pre-service training and continuing education of primary care workers are the main resources for institutionalizing the interventions in services for the project. These programs are now conducted by the MOH and by the Governorates and Zones. The purpose of this recommendation is to provide a means for providing the new service formulas to the established systems for personnel development in the MCH and GUHC programs. The project staff members have achieved a clear understanding of the proper ingredients for such orientation and education. The completed documentation can be handed over to the established training system to permit the staff to devote time to new areas of the work.

The documentation, dissemination, and implementation of these training and development materials should focus first on the established systems for orientation and training in the project area zones. The materials should be prepared where possible for use in training personnel in unrenovated centers. The work of the actual training can then be given over gradually to the established training centers for MCH and GUHC workers. UHDSF monitoring will be needed from time to time for solution of special problems.

The timing of these steps should be arranged to complete the documentation as soon as possible. The steps should include careful consideration of the form and content of the existing objectives, courses, teaching resources, facilities, and capacities of the established training system.

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**A.3 Prepare to implement new interventions in services: Community outreach, family planning, others. Document and disseminate the training materials.**

Response. There is a vast Egyptian experience in community outreach and family planning which should be reviewed before full development of these interventions (Second Population Project, Menofia Project, PDP, etc.). The team recommends that the UHDSP should try to benefit from successful as well as unsuccessful experiences in Egypt in addition to other experiences in culturally close countries visited by some project staff members. Proper training of outreach home visitors is crucial. Their training should include skills in behavioral modification and communication; these two skill areas usually are missed or treated very lightly in such programs. A variety of local and international training modules is available. These should be explored.

Another crucial issue in the management of outreach programs is supervision and incentives, which require special attention. The type and nature of supervision and the type and quality of data required should be very clearly defined.

Last but not least is the monitoring and evaluation of the impact of outreach programs.

A.4 Develop culturally-related, innovative health education approaches; design, develop, and produce IEC materials and messages. Document and disseminate the health education materials.

Response. The crucial role of health education and IEC messages and materials have been emphasized before in this report. The range of IEC material can be very widely defined to include all information, knowledge, and ideas that the project would like to communicate to:

- A. Personnel directly or indirectly involved in various project activities at various levels (e.g., MOH, project level, governorate, zones, and units)
- B. Users and potential users of MCH services
- C. The public at large
- D. Health professionals and other groups that can influence the effectiveness of the project

To implement effectively the above recommendation in the remaining period of the project's life and to allow for evaluation of its impact, the team suggests that the project should adopt a strategy of intensive production of a wide variety of culturally oriented, relevant multipurpose IEC materials. This will require:

1. Employment (by contract for 18 months) of IEC production manager with experience in various media, including: newspapers, radio, television, video, printing, slides, etc.
2. Contract for the production of various IEC materials to local firms.
3. Acquire the services of a short-term IEC consultant with experience in marketing, developing, testing, and evaluating of IEC materials.

Terms of reference for the IEC production manager should include:

1. Assist in the development of a plan for production of IEC material for the remaining period of the project life.
2. Assist in the development of RFTP for production for IEC materials by local firms.
3. Monitor the production of IEC materials by contracted firms.
4. Monitor the use and distribution of the material produced, e.g., to the centers, MOH, general public, health professionals, etc.
5. Assist in the testing of IEC materials before final production and the evaluation of their impact.

Terms of reference of the IEC short-term consultant should include:

1. Develop an overall strategy and plan for development and production of IEC material.
2. Develop an RFTP for production of IEC materials by local firms.
3. Develop procedures for testing and evaluation of completed IEC material.

Criteria for evaluation of IEC materials may include:

1. Increase in public awareness, changes in attitudes and health related behavior.
2. Improvements in quality of and changes in pattern of utilization by potential users of project's services.
3. Changes in knowledge, attitudes, and performance of health service providers in the project area.
4. Dissemination or diffusion of the UHDSP concepts, principles, and

methods to other urban areas in or outside Egypt.

5. Gaining professional and public support to the concepts, principles and approaches used by the UHDSP.

A.5 Develop and implement a health service research program in the CSPM to acquire information, orient and train junior staff, and develop relevant case studies for teaching purposes.

Response. The development of the health services research program for the CSPM requires technical support in the following way:

1. Short-term consultant with an Egyptian counterpart in development and management of health services research studies for a total period of 3 person-months spread over the next 9 months in 3 to 4 visits. Suggested terms of reference should include:
  - A. Develop and conduct orientation workshop on health services research, including development of preliminary research proposals.
  - B. Assist staff members to develop health services research proposals.
  - C. Assist in the development of a structure for organization and management of health services research.
2. Additional technical assistance using national experts in areas requiring specialized attention. This technical assistance should be used to study and recommend to the project the most effective approach for meeting the data processing and analysis requirements of the CSPM.

The Team recommends that this activity should start as soon as a request is received from the CSPM.

A.6 Develop and implement the integrated curriculum for the CSPM (curricula to include University and MOH training and instruction); during development, test portions of the curriculum on a small scale in Masr El Kadima MCHC using junior staff members under guidance of the senior staff members of CSPM.

Response. The development of an integrated curriculum is one of the most difficult tasks in education, since it requires fundamental changes in orientation from unidisciplinary to interdisciplinary approach. The contributions of each discipline should be geared to the intended outcome of the educational process rather than to the objectives of each discipline by itself. Thus an intensive interaction between representatives of various participating disciplines is a prerequisite to the delineation of the contribution of each discipline to the development of the integrated curriculum. This should be followed by the rather mechanical process of developing an appropriate balanced mix between various disciplines which should be tested on small scale before final approval.

The most effective teaching methods for integrated curricula are still subject to debate. Available options for teaching include many possible combinations of instructional systems and staffing. Apparently, teaching by a small integrated team (e.g., 3 persons) is a highly effective approach. In this setting, participating students may experience the benefits of working in teams and gain from the interaction an understanding of various points of view. In order to expedite the development of the integrated curriculum, the team strongly recommends acquiring the services of a short-term (3 month) consultant with experience in development, testing, and evaluation of integrated curricula. The consultant should work closely with Dr. Battawi and other faculty members involved in the development of the integrated curriculum.

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In addition, the team recommends that the curriculum should be tested on a small scale before introducing it widely. The involvement of junior staff members in testing the curriculum should be a very rewarding experience.

The team also recommends that the time between now and the completion of the integrated curriculum be used to start a number of training courses in Masr El Kadima MCHC, using various combinations of the already-produced material by the various disciplines. This is a sort of experimental, trial and error approach which could provide for useful feedback while developing the integrated curricula.

B.1 Develop the Physical Facility Modules of the Commissioning Package, based on previous project research; organize commissioning process for MCHCs with outside implementation group.

Response. The Physical Facility Modules of the Commissioning Package are now ready to be written and distributed for use in the remaining MCHCs as they are completed. The main elements for this step and the overall purpose is the same as discussed above in recommendation A.1.

The Physical Facility Modules can be organized for use by the zone and governorate commissioning groups under direction of the project commissioning team engineer member. The physical facility modules cover the steps in completion of the facility after the following key construction elements are available:

- A. As-built drawings of the center,
- B. Room assignments for every service agreed on by project and zone officials and written onto a drawing of the center, and
- C. Connections for electricity, water and sewage (if available) are made.

These three areas have in the past been a great obstacle to direct and efficient commissioning and will require also a systematic approach.

The commissioning process timing must operate as a coordinated process with an integration of the people and buildings at each step, as explained in Recommendation A.1.

B.2 Complete renovations, construction, and commissioning stages for all facilities; document and disseminate the experience.

Response. The large and complex facility construction and improvement activity in the UHDSP has in the past required large amounts of project staff members' time to solve problems and make plans. There is little time left to complete all the stages in the project facilities. All scheduling and construction program coordination must continue to get a high priority in work of the project. The proposed arrangements for coordination and tracking of the construction and commissioning will be very important to achieving successful completion of facilities. The equipping process is becoming an obstacle to timely completion of the work. Long delays in completion of equipment lists are now making unfortunate delays in getting the MCH facilities completed. The present arrangement for use of consultants and staff members together in completing the procurement process may not succeed in solving all problems in getting equipment as needed.

The possibility of purchasing more equipment and furniture locally was raised with the team during the evaluation. The budget for local purchases was planned originally for only small amounts of such local purchases on the assumption that most present MCH center equipment could be refurbished and reused. The present heavy emphasis on demonstrating a semi-permanent role for the free-standing MCHC in the Egyptian health services system suggests to the Team that the budget and procurement procedures should be reexamined. Perhaps, the MCHCs should be provided with a larger portion of new equipment than was previously planned.

B.3 Continue development of facility maintenance procedures and materials; document and disseminate these materials.

Response. The facility maintenance activity requires continued attention to ensure that the facility-related service improvements can continue to function in a proper way. The project has plans for completing 3-maintenance centers in GUHC sites for service to primary care facilities. The software and staff members required for these facilities are essential to the success of these elements. The appointment of staff members is planned for these centers in the next few months and this step is very important. The actual training and development of these people should begin immediately after appointment.

The documents needed to properly train and facilitate the work of the maintenance teams are needed in the next few months. This documentation should be prepared with a primary care facility focus. The required equipping and supplying of the maintenance centers also will need careful planning in the next few months.

C.1 Prepare and implement interventions in management: Organizational structure of MCHCs, economic treatment in MCHCs, others; document and disseminate the experience.

Response: The purposes of the management interventions are two-fold:

1. To develop management skills in MCH personnel, and
2. To increase the flexibility and autonomy for management personnel in local facilities.

These two probably need to move along simultaneously. The training of MCH staff in management may be almost a precondition of the zone allowing an increase in management options for the centers. On the other hand, increasing management skills will turn out to be frustrating for personnel who have little opportunity to exercise their skills.

If it were agreed that the management options would be increased in the case of a center whose staff had received training, this would probably increase the demand for training. Two possible management options that might be given to MCH centers are:

1. Permitting the physician director to interview prospective staff members, and
2. Permitting the physician director to have some contingency fund of money that he/she controlled.

Interventions of two types have been proposed and some preparation has already occurred. These two are:

- A. Organizational structure of MCH centers, and
- B. Economic treatment.

An emphasis that belongs in both of these interventions that has to the present time received inadequate attention is that concerned with cost containment. New attention will be devoted to cost issues as a result of the work defined in the proposed contract for project evaluation research, and a new sensitivity to the cost issue is expected to result.

It is essential that cost concerns be included in both of the new management interventions mentioned here. In addition, the question of sensitizing the pharmacist to cost also needs exploration.

The work that has begun on these interventions must move forward in the immediate future. As the interventions are developed they should be implemented and tested in one or more of the first three centers. (The date of implementation of economic treatment may, of course, depend on factors external to the project.) Once tested, the interventions should be documented and distributed.

The responsibility for this activity should remain in the hands of the O & M unit.

C.2 Develop a capacity in each facility commissioned to do its own problem-solving by providing training and supervision for facility staff members in how to use appropriate techniques?

Response. One of the major challenges to the UHDSP is not only how to institutionalize concepts, approaches, methods and techniques at the unit level, but also how to develop the mechanism necessary to guarantee continuation without high dependence on central levels. This can only be achieved by developing problems solving capacity within each facility. This requires equipping facility personnel with the ability and skills to identify problems, contributing factors and suggest and apply appropriate solutions. The type of training should be practical, involving learning by doing, and should be done at the unit level.

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D.1 Conduct a small workshop on "Community Participation in Urban Areas," with wide involvement of experts in the field, to focus on appropriate community participation activities for the project.

Response. The concept of community participation includes a wide range of ideas and activities. The operationalization of the concept vis a vis the UHDSP and the determination of goals and objectives and selection of appropriate activities requires involvement of educators, practitioners, and community representatives. This could be achieved effectively through a workshop that enables these groups to interact and reach consensus on an appropriate strategy for the development of activities by UHDSP to enhance community participation. The team recommends that this workshop be held during April, or May 1984 at the latest. The Team urges that the planned format for the workshop be kept simple.

The disciplines involved should include social workers, social anthropologists, and mass communication specialists. Intensive experience in community organization is essential. Practitioners should be drawn from the Ministry of Social Affairs, family planning, and other voluntary organizations.

The objectives and issues of the workshop should be well-defined and clearly communicated to the workshop participants one month before the workshop. Careful attention should be given in advance to the design of sessions and the approach to be used in involving participants in the workshop. The output of the workshop should be an outline for the recommended strategies for UHDSP in community participation.

The team recommends acquiring the services of a national consultant (3-month) with experience in community organization and development and the management of workshops.

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The terms of reference for the community organization and development consultant should include:

1. Identification of successful experiences in community participation in urban areas and identification of the names of individuals responsible for these successful experiences.
2. Development of a working papers for the workshop.
3. Design of community participation workshop, including issues for discussion, resource people to be used, methods of presentation and structure of sessions.
4. Development of the final report of the workshop.

D.2 Prepare and implement intervention(s) in community participation; document and disseminate the materials.

Response. The outcome of the workshop on community participation, i.e., a strategy and recommended activities, should be used as the basis for the implementation of this recommendation.

A small number of interventions should be formulated, compared for cost-effectiveness, tested, then implemented. Involvement of community leaders is a must during all stages of development of the interventions. The team recommends that in implementing the design interventions the project use successful existing organizations, public or voluntary, rather than establishing new ones.

E.1 Plan and conduct a National Conference on Urban Health Delivery Systems to present main issues, problems, and the experience of the project; develop a consensus from the conference on needs for future plans in Egypt. (Consider also a later International Conference to include other countries in the region.)

Response. The benefits of a National Conference on Urban Health Delivery Systems are obvious. Urban health services face increasing complexities and difficulties. The UHDSP has developed and implemented innovative approaches in MCH services which can be of great importance in formulating an overall strategy of health services in urban areas. The proposed national conference would be an excellent way to disseminate to a wider audience the accumulated, practical experience of UHDSP. This knowledge is needed to build appropriate strategies and policies for urban health.

This conference would bring together policymakers, planners, health providers, health professionals, and community representatives.

The Team recommends to the project that it acquire the services of a national consultant for 6 months. The consultant would be responsible to make all necessary plans, preparations, assist in the implementation, and develop the final report and recommendations of this conference. Suggested date is October 1984. Overall policy for the conference should be developed by a small committee of project staff members with the Executive Project Director.

This conference could be followed by a regional conference with international participation, around November 1985. Material prepared by the project for the first, National Conference, could also be used in presentations by project participants in the upcoming International Hospital Federation meetings in Nairobi in October 1984.

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E.2 Develop a small newsletter that contains news of the project and of primary care-related innovative ideas. The newsletter should be distributed to MCH center staff members, zone offices, governorate offices, other MOH personnel, University personnel such as CSPM and primary care-related faculty.

Response. The purpose of the proposed newsletter is to provide a vehicle for distributing information about the UHDSP that will contribute to the development of an affirmative image around the concept of primary care. The language should be Arabic with a small amount in English. Brief, "newsy" items are recommended. Articles about MCH center staff members are highly appropriate. For example, a brief item on Dr. Mohtaz's award from the Medical Syndicate would be excellent. If a center physician gets sent somewhere for training, this would be good to note. Or, if one moves out of an MCH center to a "better" job, the newsletter could wish him/her well and in so doing suggest to others that there is indeed life after MCH service. The arrival of a dozen new autoclaves ready for installation could be mentioned. Brief articles on prestigious people involved in training are important. Brief notes on research are good. Even a note on an article in high status journal on some new insight into primary care would be good. The image is that MCH/primary care is alive and well as are the staff participants.

Minimum resources are necessary. The image is a 2 to 3 page, perhaps mimeographed, letter. The schedule could be informal. One person would be designated to handle it, but all would be encouraged to suggest new items. No photographs, no glossy paper, no heavy editing responsibility as with a research journal are appropriate or needed.

Publication should begin as soon as possible. There is plenty of news right now. Start assembling the distribution list immediately.

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E.3 Prepare and implement additional strategies for developing support for primary care and MCH through use of: radio, television, contacts with health professional bodies, and other appropriate activities.

Response. The overall purpose is to develop support for primary care and MCH and cast a new image in the minds of:

1. The general public,
2. Health care providers,
3. Health educators of various sorts, and
4. The MOH.

There is a number of messages that need to be conveyed. These are:

- A. The quality of the care is good.
- B. The primary care giver is genuinely concerned with the patient (i.e., not just with her disease)
- C. If you need more sophisticated care, you will get it.
- D. Preventive care "pays off" for the patient and for the MOH.
- E. The MCH center is an important asset to and participant in a community.
- F. MCH is a good place to work.
- G. Leaders in the field of medicine believe in the importance of primary care.
- H. And more.

This, in contrast to the newsletter, is a large job. A creative person is needed for this, someone with experience in the field. A wide variety of media is important: radio, television, newspapers, journals, occasional brochures, posters, etc.

These strategies can be assigned with the IEC program resources described in recommendation A.4. Present project staff can begin assembling lists of professional organizations, names of media persons who have shown

some interest in health, and distribution lists of various sorts.

ANNEX A

LIST OF PEOPLE CONTACTED

UHDSP Internal Evaluation Steering Committee

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Project Contractors

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