

1. PROJECT TITLE SUEZ COMMUNITY HEALTH PERSONNEL TRAINING	2. PROJECT NUMBER 263-0136	3. MISSION/AID/W OFFICE USAID/Cairo
	4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <u>84-2</u>	
<input type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION		

5. KEY PROJECT IMPLEMENTATION DATES			6. ESTIMATED PROJECT FUNDING A. Total \$ <u>72.9</u> B. U.S. \$ <u>17.1</u>	7. PERIOD COVERED BY EVALUATION From (month/yr.) <u>June, 1981</u> To (month/yr.) <u>October, 1983</u>	
A. First PRO-AG or Equivalent FY <u>80</u>	B. Final Obligation Expected FY <u>85</u>	C. Final Input Delivery FY _____		Date of Evaluation Review <u>November, 1983</u>	

8. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Mission decisions which anticipate AID/W or regional office action should specify type of document, e.g., airgram, SPAR, PIO, which will present detailed request.)	B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
Amend Project Paper along the lines specified in the evaluation report, with special emphasis on:	USAID/Cairo	January 31, 1984
1) Strengthening the administrative, management, and financial capabilities of the Faculty of Medicine;	SCU/FOM	June 30, 1985
2) Developing the clinical teaching curriculum and faculty;	SCU/FOM	June 30, 1987
3) Expanding the FOM's role in improved health services at the Ministry of Health's clinical teaching sites (thereby serving as a regional model for health care improvement).	SCU/FOM and MOH	June 30, 1987
4) Expand the tested interventions of the Strengthening Rural Health Delivery Project to the SCU/FOM - MOH clinical teaching sites in the Suez Canal Governorates.	SCU/FOM and MOH	June 30, 1987
5) Extend the project to correspond to the graduation of the first class of medical students.	USAID/Cairo	January 31, 1984
(*See detailed recommendations and actions in the attachment).		

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input checked="" type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify) _____
<input checked="" type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

A. Continue Project Without Change

B. Enhance ~~Continue~~ Project Design and/or Change Implementation Plan

C. Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER RANKING PARTICIPANTS AS APPROPRIATE (Names and Titles)

Douglas Palmer, HRDC/H *DP*
 William Oldham, HRDC/H *WO*
 Howard Lusk, AD/HRDC *HL*
 Norman Sweet, AD/DPPE *NS*
 Arthur Handly, DD *AH*

12. Mission/AID/W Office Director Approval

Signature *M.P.W. Stone*

Typed Name
M.P.W. Stone, Director

Date
1-2-84

ATTACHMENT: PES
SUE & COMMUNITY HEALTH
PERSONNEL TRAINING
PROJECT (263-0136); 12/83

SPECIFIC EVALUATION RECOMMENDATIONS
AND PROJECT PAPER AMENDMENT .

* FROM DRAFT PP AMENDMENT NO 3, DATED
12/83.

III. Specific Mid-Project Evaluation Recommendations and This Amendment

The mid-project evaluation strongly recommended continuing project activities aimed at the existing project purpose. It approved all specific project objectives; however, it recommended that selected objective activities and inputs be modified and/or emphasized.

(Recommendations are keyed to output activities given on page 3.)

A. Outputs

The specific recommendations to AID and amended output activities are as follows:

1. Strengthening Management at FOM/SCU: Medical centers are inherently complex institutions to manage. The development of the FOM/SCU is no exception. With the addition of each class of

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students, the administrative demands grow. This places great demands on the Dean, since there has not been comparable growth in the administrative staff or administrative arrangements as the Dean indicated in his "Address to the Second Annual Program Evaluation Conference of the FOM/SCU" on September 24, 1983.

a. Recommendation: The support of the development of the administrative, management and financial capability, as well as the financial capacity, of the Faculty of Medicine should be a principal focus of plans and AID monitoring for the remainder of Phase II activity.

b. Amendment: Objective No. 1, Strengthening Management, output 1.1, is amended to read:

1.1 Detailed management plan for the FOM/SCU, to include financial management and an organizational design (by July, 1985).

2. Action Planning and Program Review (program monitoring and evaluation):

a. Recommendation: The program has made extensive and generally effective use of evaluation. Now that the demonstration of methodologies has been made, it may be wise to free some of this time for other faculty endeavors. Unquestionably, some economies can be made since the faculty and students have gained experience in evaluation methodologies. Nevertheless, with the mounting requirements of an expanding program, the team recommends focusing evaluation efforts more sharply on critical areas, including student clinical performance and program impact on health services.

b. Amendment: Objective No. 2, Action Planning and Program Review (APPR), output 2.1, is amended to read:

2.1 Evaluation designs developed for the group practice, educational development, health services development, and administration/management (by December, 1984).

3. Undergraduate Curriculum Development

a. Recommendation: Support to the educational program should be focused primarily on priority area required by the development of the curriculum for the clinical years. Priority areas include: epidemiology, biostatistics, environmental health and behavioral sciences.

b. Amendment: No changes to output activities. See "Inputs, Technical Assistance".

4. Postgraduate Training Programs

a. Recommendation: To insure adequate supervision of undergraduate students in clinical sites and to achieve rapid impact on community health services, the FOM/SCU should continue and even intensify its efforts to enroll Ministry of Health physicians in the postgraduate program in general practice. Highest priority should be given to candidates from the Suez Canal governorates, including, in the future, North and South Sinai.

The Ministry of Health, in turn, should take all necessary steps to place the graduates of this program in clinical positions in Suez Canal governorate health facilities, giving priority to teaching sites for undergraduate medical students.

b. Amendment: No amendment of output activities. AID will continue to fund postgraduate training activities and continue to encourage the assignment of MOH physicians to FOM/SCU - MOH clinical training sites.

5. Establishment of an Infectious Disease and Clinical Microbiology Program

a. Recommendation: None.

b. Amendment: None.

(Most activities have been completed: "The microbiology, pathology and anatomy laboratories are established and functioning. The hematology laboratory has not yet been developed but is scheduled for completion this year. The microbiology laboratory has been developed through a four-phase plan with consultants from the University of Washington at Seattle. It has a sound functioning administration, quality controls, job descriptions, protocols and trained staff. All of the laboratories have adequate space and with further development will be excellent learning laboratories for students.")

6. Health Services Improvement: Much progress has been made in relating the program and FOM/SCU to health services and upgrading the clinical facilities and personnel of the MOH. Nevertheless, much remains to be done.

a. Recommendations:

(1) The need for a high level coordinating council. Since Phase III is so heavily dependent on clinical resources, it seems necessary--in addition to the Permanent Committee which meets infrequently--that a coordinating

council of representatives of the FOM/SCU, the governorates, and the MOH be set up shortly.

(2) To strengthen the skills and motivation of nursing and other health personnel, the Ministry of Health and AID, in consultation with the FOM/SCU, should consider including one or more of the Suez Canal governorates in the planned expansion of the Strengthening Rural Health Delivery Project. AID should also consider ways to facilitate the sharing of information and achievements in the health and family planning activities it supports. One form this could take would be occasional seminars on topics of mutual interest such as medical records or community surveys.

b. Amendment: Objective No. 6, Health Services Improvement, outputs 6.1 - 6.3, are amended to read:

6.1 To strengthen the entire health delivery system: staff, facilities and services at the clinical training sites.

6.2 Assist the GOE establish and maintain a high level coordinating council of representatives of FOM/SCU, the participating Suez area governorates and the MOH to achieve Health Services Improvement.

6.3 Assist the FOM/SCU establish and maintain a committee to investigate health care services in the project area and to plan, organize and implement in the Ismailia Governorate methods shown by the Strengthening Rural Health Delivery project to greatly improve health delivery services.

7. Group Practice Development

a. Recommendation: The experience with the group practice experiment should be monitored closely for the phasing out of its subsidy and evaluated for its effect on faculty retention and revenue generation as well as its impact on health services in the area. Its ultimate implications for the education program should be considered. At this point, however, it is too early to make a judgment about its possible replicability and extension to Port Said and Suez.

b. Amendment: Objective 7, Primary Group Practice, output 7.2, is amended to read:

7.2 One assessment of the Group Practice as to its effect on faculty retention, revenue generation, and impact on health services.

8. Junior and Senior Faculty Research Fund

a. Recommendation: The school should start to work out a plan of research which is community oriented and multi-disciplinary. This is important for the achievement of school goals and satisfying the research needs of the faculty.

b. Amendment: Add output activity 7.2 to read: "Develop and/or modify the Faculty Research Fund plan placing emphasis on research topics with community orientation and are multi-disciplinary, by July, 1984."

9. Facilities Development

a. Recommendation: No recommendations specific for this output. (See 6.1, "The need for a high level coordinating council".)

b. Amendment: None.

B. Inputs

1. Technical Assistance

a. Recommendation: The project has made extensive use of international and, to a lesser extent, national consultants to assist in program development. With the achievements of the last eighteen months, the types of technical assistance which will be needed in the remainder of the cooperative agreement will change. In areas such as evaluation, audio-visual teaching methods, and planning for problem-based curriculum, the need for technical assistance is reduced since the first three years are largely in place and the competence of FOM/SCU in these areas is well developed. In contrast, new areas of technical assistance will be needed for the development of the curriculum for the clinical years, the administrative and management needs of a rapidly growing school and the expansion of the program's community focus. The team identified the following areas of priority need:

- (1) management and administration;
- (2) community medicine, epidemiology and biostatistics;
- (3) research methodology.

In addition, there will be continued need for assistance in areas including group practice management; English language; clinical specialities; facility design; and library development.

An increasing reliance, to the extent feasible, on consultants from Egyptian universities and institutes. (???)

b. Action: AID will amend the contractor Cooperative Agreement to assure that technical assistance focuses on

priority areas as given above. More effort will be made to increase the number of Egyptian consultants.

2. Relationship of FOM/SCU administration with BU

a. Recommendation: As the Cooperative Agreement is in its fourth year, it is appropriate for senior USAID staff to review with the administrations of SCU and FOM/SCU and with the administration of the Contractor the current arrangements. Under these arrangements much has happened to facilitate the remarkable initial growth of the school. As the FOM/SCU enters the critical phase of planning and implements its clinical teaching programs, it is urgent that attention is given to a redefinition of tasks to be accomplished. The administrative arrangements to achieve them needs to be addressed in the context of this joint effort.

b. Action: The GOE has called a three-day meeting to work on a redefinition of tasks and responsibilities. The meeting will have participants from FOM/SCU, the MOH, the Contractor, and USAID; it will be held December 18-20, 1983.

3. Participant Training

a. Recommendation: The evaluation noted that there were many instances where short and long-term training was making an important contribution to program, particularly faculty, development. The evaluation team recommended that, with the more clearly defined needs and goals of the program, the selection of trainees and the planning of their program will shift in ways similar to those described under the section on

technical assistance (above) to reflect these needs and priorities and the availability of suitable candidates.

b. Action: AID will approve participant training plans (submitted every six months) based upon the above recommendation to emphasize priority areas.

C. Other Recommendations

1. Class size

a. Recommendation: Every effort should continue to be made to fulfill the objective of a relatively small class size. In an innovative program, this is particularly important until the faculty accommodates fully to this effort. As proposed new schools consider adopting the innovations of the FOM/SCU, it is important to provide a fair trial; if class size increases rapidly, the chances for success are threatened.

b. Action: A covenant will be included in the Grant Agreement Amendment stating that every effort should be made to keep the class size below 100 students.

2. Impact of FOM/SCU

a. Recommendation: The innovative program at FOM/SCU represents a significant departure from the system of Egyptian medical education. There is a considerable interest on the part of other medical schools in the innovations at Ismailia as evidenced by their broad participation at the recent evaluation conference. Nonetheless, because of the complexity of realizing significant change within a traditional curriculum, it is unwise to expect an early, rapid or extensive adoption of all of the methods used at FOM/SCU. Rather one should look for

gradual, incremental change to achieve a long lasting impact on Egyptian medical education.

b. Action: The FOM/SCU is gradually developing systems to promote its medical education innovations. AID provides assistance to FOM/SCU to accomplish this.

3. Project Extension

a. Recommendation: Project support should be continued at least through the graduation of the first class in 1987, and should focus on the achievement of three goals:

- (1) Strengthening the administrative, management and financial capability of the Faculty of Medicine;
- (2) Developing the clinical teaching curriculum and faculty;
- (3) Expanding the Faculty of Medicine's role in and contribution to the health services in the Suez Canal governorates.

b. Action: This amendment includes a Phase III to the project. Phase III (August 1, 1985 - July 31, 1987) will focus on solidifying the following five project objectives:

- (1) Strengthening the administrative, management and financial capability of the Faculty of Medicine;
- (2) Developing the clinical teaching curriculum and faculty;
- (3) Expanding the Faculty of Medicine's role, and supporting collaboration between FOM/SCU and the MOH, in the improvement of Health Services at the MOH clinical

teaching sites and to serve as a regional model for health care improvement;

(4) Assistance in the expansion of the Group Practice concept to Suez and Port Said;

(5) Renovation to additional training sites in the project area. (See Annex II, Grantees Request.)

EVALUATION REPORT
OF THE
SUEZ COMMUNITY
HEALTH PERSONNEL TRAINING PROJECT

Cairo, Egypt

October 12, 1983

Prepared by:

Julius Richmond, M.D., M.P.H.
M. Lotfy Dowidar, M.D., D.CH.
Pamela Johnson, Ph.D.
Lynette Russell, M.S.

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ACKNOWLEDGEMENTS

The team for the evaluation of the Suez Community Health Personnel Training Project wishes to express its appreciation to the many people who facilitated our work. It is possible to single out only a few for specific mention.

The Deputy Prime Minister and the Minister of Education, Dr. Mostafa Kamal Helmi, was gracious and informative. His understanding and support of the program was reassuring.

The Minister of Health, Dr. Sabri Zaki, made his staff available to us. His continuing interest in the program was manifested in many ways and our discussion with him was productive.

President Abdel Meguid Osman of the Suez Canal University, Dean Zohair Noonan and Vice Dean Dr. Esmat Ezzat of the Faculty of Medicine were most generous in being available to us as we needed them. The members of the faculty were at all times helpful and informative.

We were very fortunate in having the opportunity to attend the Second Annual Program Evaluation Conference of the Faculty of Medicine, Suez Canal University, from September 24th to 26th. This provided us with a comprehensive review of the program to date. We are indebted to the many consultants and faculty members from other Egyptian medical schools for extensive discussions with them during the Conference which provided us with many insights into the new program in medical education at the Faculty of Medicine, Suez Canal University.

The students at the medical school participated actively in the Conference. They also were available to us for discussions and were most gracious in making our stay a pleasant one.

Dr. William Oldham, Mr. Douglas Palmer and others of the staff of the AID mission in Cairo defined our tasks and assisted us in ways too numerous to mention.

Dr. William Bicknell and the entire Boston University staff in Boston and in Ismailia were most cooperative, informative and helpful. They prepared extensive program material for us and facilitated our visit in many ways.

The U.S. members of the team cannot express adequately the help we received during the course of our work from the Egyptian member of our team, Professor Lotfy Dowidar of Alexandria. His rich background in medical education in Egypt and throughout the world, along with his thoughtful, congenial and stimulating contributions, made our work with him a true learning experience. If our report is sensitive to the needs of the people in Egypt, it is in no small measure due to his contributions to our work.

MEMBERS OF THE EVALUATION TEAM

Julius Richmond, M.D., M.P.H., Director, Division of Health Policy, Harvard University, Boston, Massachusetts.

M. Lotfy Dowidar, M.D., Professor of Surgery, Alexandria University; Chairman of the Section of Medical Education of the Supreme Council of Universities, Cairo, Egypt.

Pamela Johnson, Ph.D., Social Science Advisor, Division of Health, Population and Nutrition, Bureau for Near East, USAID, Washington.

Lynette Russell, M.S., C.N.M., Rapporteur and Editor.

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I. SUMMARY AND RECOMMENDATIONS

A. SUMMARY

In 1980, AID signed a Grant Agreement with the Ministry of Health (MOH) and Suez Canal University Faculty of Medicine at Ismailia (FOM/SCU) to initiate a five-year project to establish an integrated medical education and health services program in five governorates bordering the Suez Canal. Under this grant, a Cooperative Agreement was signed between the Agency for International Development and Boston University (May 15, 1980) to provide assistance in the areas of medical education and health management to Suez Canal University and the Ministry of Health. The long-term goal of this cooperative effort is to integrate and approve a system of medical education and health services that is responsive to the basic health needs of the population of the Suez Canal area.

The new medical school of the Suez Canal University has now enrolled its third class of students. As the first class approaches the half-way mark of the six-year program of medical education, it is appropriate to assess the progress which has been made in attaining its goals thus far and to delineate any problems which may be anticipated.

Although it has become a cliché to state that the program at the Faculty of Medicine, Suez Canal University (FOM/SCU) is a unique one, it is indeed true. While some aspects of the program have been developed elsewhere, the synthesis of several approaches toward a clearly defined set of objectives has not been replicated elsewhere.

What is so unique? First, the objectives of educating and training students to bring primary care to the community and to integrate the clinical skills with an orientation toward health promotion and disease prevention (to add the skills of public health practice) is the basic, pervasive theme. To accomplish this, there has been a remarkable commitment to understanding the learning process of the students. As a consequence the program is characterized by:

1. A problem-oriented curriculum designed to help the student understand that no two patients are alike. Serving patients properly requires problem solving based on the data obtained from the patient through history taking, physical examination, laboratory examination, along with an understanding of the community and the ecology of the patient and his psychological and social development.

2. An early introduction to clinical experiences. The student comes to the medical school strongly motivated to serve people. If patient contact is deferred to later years, there is often considerable feeling of frustration among students in the earlier years.

3. The utilization of clinical resources in rural and urban areas. To facilitate a better understanding of the patient and his family in the environment in which they live, it is well to have the student work in

clinical facilities providing primary care in the communities in which they live. In this setting, students develop an awareness of community and individual needs and familiarity with the health services which provide care, including MCH, nutrition, school health and family planning programs.

4. The upgrading of clinical services through the use of Ministry of Health (MOH) clinics for teaching. This is a complex task, but clearly both the MOH and the medical school stand to gain from this relationship. Much work needs to continue in order to work through the complexities associated with this goal.

5. A formal pattern of evaluation to check on the progress of the students. Perhaps no program in medical education has ever had such intense planning for evaluation. The Dean and faculty have sought guidance from experts in medical education from abroad and faculty members have undergone intensive training for this purpose.

Most significantly, the intensity of this effort indicates a wholesome openness on the part of the Dean and faculty to have assessments of progress which are as objective as is humanly possible. The lack of defensiveness and the readiness to solicit and to listen to constructive criticism portends well for the future.

The creativity of the Dean and the Boston University (BU) collaboration made possible by USAID have made some incredibly difficult tasks come to pass. The coordination of consultants alone has been a monumental task and includes: problem-oriented curriculum from McMaster University in Canada and from Limburg University, Maastricht, Holland; curriculum development and evaluation from the Center for the Educational Development at the University of Illinois in Chicago; and laboratory design and development from the University of Washington at Seattle.

The development of the physical plant for the teaching of the basic sciences and the infectious diseases laboratories has been remarkable when one considers the need to coordinate and to observe the bureaucratic requirements of AID, the MOH, and the Suez Canal University and BU. It is apparent that there have been dedicated people of good will in all of these organizations to have made this all come true.

The students have a remarkable esprit de corps. The faculty have high morale. What then may be some of the problems?

1. The clinical years are yet to come. This is the most complex of teaching programs. While the planning is sound, the dispersion of clinical teaching in order to meet the goal of community-based, primary care experience will make for a very difficult organizational task.

2. Can the Group Practice succeed? In order to minimize having the clinical faculty diffuse its efforts in independent practice, a group practice plan has been developed. This is a novel development for Egypt and deserves to be nurtured with the hope that this arrangement will enhance the teaching program while providing some revenue for the school.

3. Can the relatively small class size be maintained? There is reason to believe that some of the success of the program can be ascribed to a favorable faculty-student ratio. Indeed, other medical schools would also prefer such arrangements.

4. Will the health service system provide adequate opportunities for the graduates of this program? This is a very crucial problem which the MOH, the Medical Syndicate, and the University need to combine forces to solve. For it is clear, no matter how well prepared the students are for rendering high quality primary care, if career opportunities do not exist, they will need to seek other pathways.

5. Will the general practice training program continue to attract good candidates? What careers will the graduates seek? What opportunities will be available to them? The move of the Medical Syndicate and the Egyptian Medical Association along with the MOH to explore certification for general practice may enhance career opportunities for those trained in primary care. At any rate, these groups now are attending to this problem very seriously and it may well be the presence of the program at the SCU has stimulated this development.

6. How long will it take to recruit and retain the necessary number of full-time faculty, especially senior faculty? This is most vital in the clinical areas.

7. With the addition of new classes and the growing complexity of the program, will the faculty's administrative systems be able to expand to keep step with the growing demands on it? This is an urgent concern since no matter how carefully planned the educational program is, it will crumble if the administrative support is insufficient.

8. Perhaps the most important, will the Faculty of Medicine be able to achieve its goal of developing, with the Ministry of Health, an integrated system of health care delivery and health manpower development? Will there be sufficient cooperation and coordination so as to develop the community-based system that is envisioned?

B. RECOMMENDATIONS

1. Educational Program

a. General recommendations

(1) Class size. Every effort should continue to be made to fulfill the objective of a relatively small class size. In an innovative program, this is particularly important until the faculty accommodates fully to this effort. As proposed new schools consider adopting the innovations at the FOM/SCU, it is important to provide a fair trial; if class size increases rapidly, the chances for success are threatened.

While we realize there are strong pressures for expansion, such expansion should be undertaken only after the program has been tested by the graduation of several classes of students. Expansion would require considerable planning and, if undertaken, should be done slowly.

(2) Faculty recruitment and retention. Efforts should continue to recruit full-time faculty who are resident in the Suez Canal area. The extensive commuting by large numbers of faculty isolates them from local health problems and professionals and makes inroads on their availability for informal contact with students.

The potential solutions are several.

(a) A more comprehensive approach to the eligibility for faculty promotion than is now practiced. This entails taking into account other factors besides scientific research, such as the amount and types of efforts spent in education, research in medical education, and creative or innovative contribution to in the school.

(b) Continued efforts to improve incomes for full-time faculty.

(c) Assessment of the need for additional incentives, such as expansion of the group practice to Port Said and Suez, housing or schools for the children of faculty members, to determine the effect of this on permanent retention of faculty.

(3) Evaluation. The program has made extensive and generally effective use of evaluation. The two annual evaluation conferences have been occasions which have focused national and international attention on the accomplishments of the program and have provided a forum for open and candid discussion of problems facing the faculty. (See References, Annex 1, "Proceedings of the First Annual Curriculum Evaluation Conference". "The Proceedings of the Second Annual Evaluation Conference" is in preparation.)

The evaluation conference attendees, both faculty and international consultants and this team, commend the openness of the evaluation process, but are concerned about the amount of time required of faculty and students. Now that the demonstration of methodologies has been made, it may be wise to free some of this time for other faculty endeavors. Unquestionably, some economies can be made since the faculty and students have gained experience in evaluation methodologies. Nevertheless, with the mounting requirements of an expanding program, the team recommends focusing evaluation efforts more sharply on critical areas, including student clinical performance and program impact on health services. As the students approach the last year of medical school, some consideration should be given to some type of external evaluation, perhaps through the use of external examiners.

(4) The teaching of epidemiology and biostatistics. A community-based program requires a multidisciplinary approach to provide the students with the required observational and analytical

techniques as well as to provide the data base for improving health services. Since community-oriented teaching is heavily dependent on the theory and methods of epidemiology and biostatistics, much greater emphasis on teaching in these fields is necessary, as well as allied environmental health and behavioral sciences. These disciplines should be pervasive in the design and implementation of field studies. As a consequence of such teaching, students should develop improved ability to analyze problems and to read the literature critically. The Faculty of Medicine should identify and take steps to strengthen this critical component of the program. Possibilities to be considered include establishment of links with the High Institute for Public Health in Alexandria, use of intermittent consultants, recruitment of additional permanent faculty, and additional training of junior faculty members, especially field tutors.

(5) Library. Although great progress has been made in the development of the library, the recruitment of a trained medical librarian remains a central issue which begs for a solution. Every effort should be made to fill this position immediately. As four more classes are enrolled and as off-campus activities expand, the adequacy of the library needs to be considered. With the approach of Phase III, attention needs to be given to access to textbooks and to the literature in the off-campus, clinical teaching sites. In Years 4, 5, and 6, the students will be spending most of their time at these clinical facilities and the intellectual quality of their work may be diminished if these resources are not available. At the same time, the Faculty of Medicine should make library resources available to local health professionals.

(6) Research. The school should start to work out a plan of research which is community-oriented and multidisciplinary. This is important for the achievement of school goals and satisfying the research needs of the faculty.

(7) Master's Program in General Practice. To insure adequate supervision of undergraduate students in clinical sites and to achieve rapid impact on community health services, the team recommends the following. FOM/SCU should continue and even intensify its efforts to enroll Ministry of Health physicians in the postgraduate program in general practice. Highest priority should be given to candidates from the Suez Canal governorates, including, in the future, North and South Sinai.

The Ministry of Health, in turn, should take all necessary steps to place the graduates of this program in clinical positions in Suez Canal governorate health facilities, giving priority to teaching sites for undergraduate medical students.

(8) Curriculum development for Phase III. The curriculum design for Phase III is comprehensive and is designed to provide rounded clinical experiences for students.

Before finalizing the curriculum, it may be desirable to have an additional review by faculty members and outside consultants.

(9) Technical assistance. The project has made extensive use of international and, to a lesser extent, national consultants to assist in program development. With the achievements of the last eighteen months, the types of technical assistance which will be needed in the remainder of the cooperative agreement will change. In areas such as evaluation, audio-visual teaching methods, and planning for problem based curriculum, the need for technical assistance is reduced since the first three years are largely in place and the competence of FOM/SCU in these areas is well developed. In contrast, new areas of technical assistance will be needed for the development of the curriculum for the clinical years, the administrative and management needs of a rapidly growing school and the expansion of the program's community focus. The team identified the following areas of priority need:

- (a) management and administration;
- (b) community medicine, epidemiology and biostatistics;
- (c) research methodology.

In addition, there will be continued need for assistance in areas including group practice management; English language; clinical specialities; and facility design. This list of areas is not intended to be exhaustive; however, it is intended to convey the need to focus the use of external resources on priority areas.

The team also recommends an increasing reliance, to the extent feasible, on consultants from Egyptian universities and institutes.

(10) Participant training. The team did not make a detailed review of the participant training supported by the Cooperative Agreement, but did note many instances where short and long-term training was making an important contribution to program development, particularly faculty development. We anticipate that with the more clearly focused needs and goals of the program that the selection of trainees and the planning of their program will shift in ways similar to those described under the section on technical assistance to reflect these needs and priorities and the availability of suitable candidates.

(11) Impact of FOM/SCU. The innovative program at FOM/SCU represents a significant departure from the system of Egyptian medical education. There is a considerable interest on the part of other medical schools in the innovations at Ismailia as evidenced by their broad participation at the recent evaluation conference. FOM/SCU has actively involved the faculties and administrations of the other medical schools in their program and has sought opportunities to share their experiences. At the same time because of the complexity of realizing significant change within a traditional curriculum, it is

unwise to expect an early, rapid or extensive adoption of all of the methods used at FOM/SCU. Rather one should look for gradual, incremental change to achieve a long lasting impact on Egyptian medical education. This issue is discussed at length in the text. Two areas where FOM/SCU may, in the future, play a leading role is in giving guidance in the planning of two possible new medical schools in Minya and Menoufiya and in helping to build general practice master's programs in other schools.

b. Recommendations to AID

Support to the educational program in the remainder of Phase II should be focused primarily on priority areas required by the development of the curriculum for the clinical years, by the need for strengthening the community-based program, and for the development of a community-oriented, multidisciplinary research program. USAID monitoring of the project should focus on the achievement of incremental targets toward these objectives.

2. Health Services and Coordination with the MOH

a. General recommendations

Much progress has been made in relating the program and FOM/SCU to health services and upgrading the clinical facilities and personnel of the MOH. Nevertheless, much remains to be done.

(1) The need for a high level coordinating council. Since Phase III is so heavily dependent on clinical resources, it seems necessary--in addition to the Permanent Committee which meets infrequently--that a coordinating council of representatives of the FOM/SCU, the governorates, and the MOH be set up shortly.

Because of the well defined population in the region of the Suez Canal, there is the possibility of developing a model system of clinical care, data collection, medical records, and improvement of the health of the population through the teaching and research which is associated with the delivery of health services.

(2) Coordination of clinical teaching programs in Ismailia, Port Said, and Suez. There is a rich complex of services in each of these centers; the expectations of the professionals in these communities for involvement in the program of the FOM/SCU is high which suggests the need for faculty members to upgrade the programs of continuing medical education and also to improve the health services in the area. The governors and other officials and citizens generally have a high interest in seeing these missions fulfilled. As the programs and assignments for students will grow in complexity, there will be a need for some representative of the Dean to be available in each community to assure smooth functioning of the program.

(3) Nursing and allied health personnel. With the project's focus on working in and improving health services, the physicians and

students are increasingly aware of the need to upgrade the skill levels of the nursing and allied health personnel in the clinics.

It is recommended that in-service, on-site training be done for each clinical facility where training occurs. A first step in this process should be an analysis of nursing and allied health personnel needs.

Linked with that is the need to provide adequate incentives for the nursing staffs and other professional health personnel. The team recommends that ways be found to address this problem which will not detract from the faculty's focus on the development of its academic and clinical program.

It would be well to consider for a future stage of development a program in nursing education which would be comparable in its innovation and impact to the program of the medical school.

(4) A teaching hospital in the Ismailia region. The FOM has defined the need for a new teaching hospital facility in Ismailia. Such a facility would clearly be a valuable addition for patient care in the area as well as an important resource for teaching.

At least two plans are being considered:

- (a) The construction of a new hospital.
- (b) The conversion of a recently constructed, but unoccupied, police building.

The team did not have the resources to evaluate these alternatives in depth since there are issues of design, cost, location and land acquisition involved. We recommend that the technical studies of these options be continued.

The Dean has described a proposed new arrangement for the collaborative administration of clinical teaching resources between the FOM and MOH through a proposed new law to authorize the establishment of a "Teaching Hospitals and Institutions Authority" (THIA). This seems to be a constructive proposal which should be pursued. It has the potentiality for bringing the clinical resources of the three governorates into one orderly administrative arrangement for the hospitals with a total of more than 1,000 beds, their outpatient departments, and urban and rural clinics available for teaching programs.

(5) Group practice. The experience with the group practice experiment should be monitored closely for the phasing out of its subsidy and evaluated for its effect on faculty retention and revenue generation as well as its impact on health services in the area. Its ultimate implications for the educational program should be considered. At this point, however, it is too early to make a judgment

about its possible replicability and extension to Port Said and Suez. The group practice and other revenue generating activities should be evaluated carefully before any consideration is given to their expansion. It is essential that the Group Practice have full use of the facility as planned.

b. Recommendations to AID

To strengthen the skills and motivation of nursing and other health personnel, the Ministry of Health and AID, in consultation with the FOM/SCU, should consider including one or more of the Suez Canal governorates in the planned expansion of the Strengthening Rural Health Delivery Project. AID should also consider ways to facilitate the sharing of information and achievements in the health and family planning activities it supports. One form this could take would be occasional seminars on topics of mutual interest such as medical records or community surveys.

3. Management and Administration

Medical centers are inherently complex institutions to manage. In the U.S., the challenge of this complexity has resulted in numerous publications (see a recent book: The Sick Citadel, by Lewis and Sheps). The development of the FOM/SCU is no exception.

There seem to be stresses within the system at SCU. These seem to result in part from the unique arrangements bringing together the university administration, the FOM, USAID, Boston University, the MOH and the governorates.

With the addition of each class of students, the administrative demands grow. This places great demands on the Dean, since there has not been comparable growth in the administrative staff or administrative arrangements as the Dean indicated in his "Address to the Second Annual Program Evaluation Conference of the FOM/SCU" on September 24, 1983.

The following recommendations, therefore, are in order.

a. General Recommendations: Augmentation of the Internal Administrative Structure of the Dean's Office

(1) Begin by having a workshop or small conference on "University Administration in Egypt" to be held in Cairo or Ismailia, and to which senior administrators from Cairo, Ain-Shams, Alexandria, etc., Universities are invited together with the administration of Suez Canal University and its Faculty of Medicine. The pattern of Egyptian administration in universities should be extensively discussed with the focus on improving administration at FOM/SCU.

(2) Agree with the older universities to accept some administrators from FOM/SCU for training in the other universities.

(3) After an analysis of training needs, agree with the Institute of High Administration in Cairo or another organization such as the Sadat Academy of Administration to conduct training programs for the administrators of the FOM/SCU. The program should be tailored to fit the university pattern.

(4) Consider possible recruitment of one or more senior administrators in university administration, such as may be available from the pool of people who have attained retirement age, to help develop an administrative plan. Such a person may be from older universities, such as Cairo, Ain-Shams, or Alexandria, who will be willing to give service to FOM/SCU in the capacity of a consultant in administration to the Dean. The University regulations permit this arrangement. This is also consistent with the specification for a Senior Resident Manager in the Cooperative Agreement.

(5) Young, promising administrators from FOM/SCU, after passing through training programs in Egypt, could be sent to Boston University or elsewhere for further, more advanced training.

(6) Delegate more responsibility to faculty members. While the faculty committee structure seems adequate for conducting the teaching program, an administrative support system to facilitate the functioning of the Dean's office and the faculty should be part of the management plan.

N.B.: For the proper administration of the educational process, and for clinical and field training, a:

- o Medical Education Center or office should be established, headed by one of the Vice Deans.
- o similar office for liaison between the school and the Ministry of Health should be established.

b. Recommendations to AID

The support of the development of the administrative, management and financial capability, of the Faculty of Medicine should be a principal focus of activities and AID monitoring for the remainder of Phase II activity. The cooperative agreement should encourage the FOM/SCU to strive to enhance its revenues and ensure its budget, but the emphasis should be on first enhancing the management capacity of the institution itself. One would expect that this would lead to increased revenues. AID should develop targets and incremental performance criteria to guide its monitoring.

4. The Future

The combination of resources and the commitment of people have combined to create an extraordinary new Faculty of Medicine at SCU. Its contributions have been described and its unique combination of new educational processes, community orientation and collaboration with the clinical and other services

of the MOH and ongoing evaluation represent a remarkable demonstration of conceptual creativity and implementation. Yet the program remains in its early phases.

a. General Recommendations

At the time the grant period is concluded, the medical student program will have passed into the program of clinical teaching--the most complex period in medical education. It would seem in order, therefore, to suggest continuing some form of support at least through the period of the graduation of the first class in 1987. This would have the effect of maximizing the possibility of continuing the success of the earlier support. Thereafter a follow-up effort at periodic evaluation after graduation might be in order. It is obvious that the ultimate measure of the effectiveness of this novel program will be the ultimate performance of its graduates.

b. Recommendations to AID

(1) Relationship of FOM/SCU administration with BU. As the Cooperative Agreement is in its fourth year, it is appropriate for senior USAID staff to review with the administrations of SCU and FOM/SCU and with the administration of Boston University the current arrangements. Under these arrangements much has happened to facilitate the remarkable initial growth of the school. As the FOM/SCU enters the critical phase of planning and implements its clinical teaching programs, it is urgent that attention is given to a redefinition of tasks to be accomplished. The administrative arrangements to achieve them needs to be addressed in the context of this joint effort.

(2) Some form of support should be continued at least through the graduation of the first class in 1987, and should focus on the achievement of three goals:

(a) Strengthening the administrative, management and financial capability of the Faculty of Medicine;

(b) Developing the clinical teaching curriculum and faculty;

(c) Expanding the Faculty of Medicine's role in and contribution to the health services in the Suez Canal governorates.

II. INTRODUCTION

A. BACKGROUND

There are several important points in the history of medical education in Egypt that led to the development of a new type of medical education.

1. Until 1940, there was one medical school in Egypt--The Cairo University School of Medicine. Over a period of thirty years, eight other medical schools were opened (1940-1970).

2. Until the mid-sixties, the numbers of medical students in the schools were reasonable, about 100-150 per class. Teaching was good and clinical training was adequate.

3. In the mid-sixties, the authorities began an Egyptian health policy which necessitated the need for large numbers of doctors to fulfill the objectives of the health plans made since then. This was a turning point in the history of medical education in Egypt.

Political pressure was exercised on the universities to admit increasingly larger numbers of students, far exceeding the capacity of the medical schools to produce good doctors. The number of admissions to the nine medical schools rose steadily until it attained about 4,000 students admitted to all the schools in about 1973, and this figure is still maintained. Currently, the total number of all medical students in Egypt is about 35,000.

4. A natural and expected result of this increase is a lowering of the standard of the educational process and the production of doctors who are not satisfactorily educated nor adequately trained--"The question of quality versus quantity."

5. Added to this deleterious factor of large numbers is the fact that the traditional curriculum of the medical schools gave more importance to theoretical knowledge and less importance to clinical and field training, not because of ignorance on the part of the educators, but mainly due to lack of training facilities. The curriculum was hospital based and subject-oriented. All training was done in the university hospitals which have a limited capacity. No attempt was made to use other Ministry of Health hospitals or clinics.

6. Another negative factor in the traditional curriculum is lack of interest given to the study of the Egyptian community and its health problems with the result that the graduated physicians find that a lot of what they learned in medical school is not relevant to what they are asked to do. This is an important factor in reducing their efficiency and productivity. It is more apparent in doctors working in the rural areas (50% of the country), because they have never studied the health problems of the rural areas, nor were trained there, nor even went there.

7. Since the early seventies, great concerns developed over this situation among the majority of medical educators in Egypt. Many attempts at reform of medical education in Egypt were tried in the seventies but with little results due to the continuous and persistent political pressure to have large numbers of medical students admitted yearly. In addition, there was lack of facilities for proper clinical training in the Ministry of Health hospitals and lack of facilities for field training. Cooperation between the health authorities and the medical schools was very low.

8. The movement to reform medical education reached its climax at the Fayoum Conference in March, 1978, where the subject of medical education was addressed. The recommendations of this conference emphasized the importance of linking the educational process with community health needs and stressed the need for a student-oriented, problem based learning process. These recommendations signaled a new approach to medical education in Egypt.

The importance of medical education reform was reaffirmed by the 1982 health sector assessment.* The report noted that the quality constraints (both competence and motivational) create some of the most severe problems within the Egyptian health sector.

9. With the establishment of the Suez Canal University and its medical school in 1979 (the tenth medical school in Egypt), an ample opportunity appeared to establish a new medical school on a totally different style. It was agreed by all to establish a community-oriented, community-based medical school, adopting an active learning, problem-based curriculum.

10. The founding Dean and Vice Dean of the Faculty of Medicine at Suez Canal University were appointed in 1977 and began the long process of planning and developing a community-oriented, problem-based medical education system. The Faculty of Medicine established the following objectives:

a. To qualify physicians who will be able to provide health care in a combined hospital/community system with special emphasis on primary care;

b. To relate medical education to the needs of society so that physicians will be able to diagnose community health problems;

c. To develop and implement, with the Ministry of Health and others, an integrated system of health care delivery and health manpower development in the area;

d. To develop postgraduate and continuing education programs for health personnel; and

e. To initiate and support research efforts that address the health needs of the area.

*A Report on Health Development in the Arab Republic of Egypt: A Sector in Transition, 1982.

The objectives provide for the development and utilization of a new curriculum and a new mode of teaching in training physicians to plan, manage and provide preventive and community-based primary health services.

B. THE SUEZ COMMUNITY HEALTH PERSONNEL TRAINING PROJECT

In 1980, AID signed a Grant Agreement with the Ministry of Health (MOH) and Suez Canal University Faculty of Medicine at Ismailia (FOM/SCU) to initiate a five-year project to establish an integrated medical education and health services program in five governorates bordering the Suez Canal. Under this grant, a Cooperative Agreement was signed between the Agency for International Development and Boston University (May 15, 1980) to provide assistance in the areas of medical education and health management to Suez Canal University and the Ministry of Health. The long-term goal of this cooperative effort is to integrate and approve a system of medical education and health services that is responsive to the basic health needs of the population of the Suez Canal area.

The overall objectives of this project are to:

1. Establish a program for the integration of medical education and health services in the Suez Canal area.
2. Educate and train primary care physicians as direct providers and health team managers to work effectively within resource constraints.

The Grant Agreement (March 2, 1980) provided \$2,700,000 for the first phase (eighteen months) of the five-year project. Phase I was subsequently extended from November 15, 1981 until March 15, 1982, with an increase in funds (\$400,000), bringing the Phase I total to \$3,100,000.

On June 14, 1982, the Grant Agreement was amended to provide additional support of \$7,800,000 in a second phase. Phase II is 3-1/2 years, from March 1982 to July 1985. The Cooperative Agreement with Boston University was amended on June 26, 1982 to provide a first increment of Phase II funds to support eighteen months of project activity. The Cooperative Agreement anticipates providing funding for an additional twenty-four months of Phase II contingent on availability of funds, evidence of satisfactory progress toward program goals, AID priorities, and the mutual agreement of the parties.

Phase I of the project focused primarily on planning, staff training and development, start-up activities of FOM/SCU, and initiation of collaborative efforts between FOM/SCU and the MOH. Under Phase I, the following activities were carried out:

1. Curriculum development, including an outline for the six-year undergraduate curriculum detailed development of Year 1 learning units and tutor training, and assistance in the graduate training program in general/family practice.
2. Initiation of a health services inventory for the Ismailia Governorate and planning activities related to urban services in Port Fouad Governorate.

3. Selection, design and the commencement of renovation activities in four clinical (Rural Health Units) training sites (funded through a FAR agreement with the Ministry of Health).

4. Development of a primary care group practice in Ismailia, scheduled to begin operations in early 1982.

5. Design and partial equipping of a non-clinical facility (Building 29) for teaching, administrative, library and laboratory space for the Faculty of Medicine.

6. Staff development and continuing education in Egypt and in the United States for the FOM/SCU and MOH participants.

Following an evaluation of the project's first phase, Phase II was designed to encompass a broader range of activities and focus on the implementation of the major program components. Phase II activities focus on the following:

1. Strengthening FOM/SCU management.
2. Action planning and program review (APPR). This includes overall program monitoring and evaluation.
3. Undergraduate curriculum development.
4. Graduate training programs in general practice/family practice/ primary care.
5. Continuing medical education program development.
6. Establishment of an infectious disease and clinical microbiology program.
7. Health services improvement in the project area (Suez Canal).
8. Establishment of a Primary Care Group Practice development.
9. Facility Development.
10. Establishment of an equipment maintenance program.

This evaluation occurs during Phase II of the project at the beginning of the fourth year of operation and after three classes of medical students have been admitted. The scope of work of the evaluation team encompasses all project components and includes issues that have occurred during implementation.

The objectives* of the evaluation are to:

1. Determine project progress and whether objectives are being achieved.

* These objectives are stated in the Cooperative Agreement, June 26, 1982, between A.I.D. and Boston University and the Project Grant Agreement, June 14, 1982, between the Arab Republic of Egypt and the U.S.A.

2. Identify problem areas where project resources might be better utilized; and

3. Recommend measures designed to see that implementation activities are supportive of project objectives.

C. EVALUATION METHODOLOGY

1. Document Review

Background material of the project was reviewed and analyzed. This included the project paper, cooperative agreements, contracts, progress reports, development and implementation plans, consultant reports, and budgets.

Material developed by the FOM/SCU program was also reviewed: curriculum, development and implementation program plans, position papers, and evaluation reports.

Documents reviewed came from three sources: AID/Cairo and Washington; Boston University--Boston and Ismailia offices; and Faculty of Medicine, Suez Canal University.

2. Interviews

Interviews and discussions were held with AID/Cairo personnel, the President of Suez Canal University, the Dean and Vice Deans of the Faculty of Medicine, FOM/SCU faculty, students and staff, Boston University personnel (Project Director, Project Manager, Chief of Party, staff), Ministry of Health officials, key health center and hospital personnel, faculty of other Egyptian medical schools and visiting consultants in technical assistance.

3. Site Visits

Sites related to the project were visited and inspected in three governorates: Ismailia, Port Said and Suez. Tours of the educational program facilities were completed.

D. OVERVIEW OF CURRENT STATUS

The Faculty of Medicine of the Suez Canal University has taken enormous strides in a short time in developing itself as an independent and viable institution. The Dean, with support from Suez Canal University President Osman, has been resourceful in bringing both human and financial resources to the school from a variety of sources. The school has marshalled the support and interest of senior officials in the Ministry of Health, the Supreme Council Committee on Medical Education, and local MOH and governorate officials. It has also made rapid progress in developing its faculty, and, to a lesser degree, its administrative staff.

As is evident in a detailed review of the output and input objectives (Appendix 2), the achievement to date has been quite remarkable. This reflects generally the excellence of the project design and the flexibility and capability manifested in the implementation. The arrangements for grant management seem to have facilitated the rapid development of curriculum design as well as faculty recruitment and training for a new program; this in turn has been accomplished by the creative use of consultants from several universities.

The development of physical plant, and equipment has paralleled the rapidity of program development. The time frame was incredibly short and there probably has been no new medical school development in the world which has succeeded in entering its first three classes within the time frame of this Cooperative Agreement.

Since the first students entered the school in the fall of 1981, benefits of the Suez Community Health Personnel Training Project have been realized on the level of the faculty, students, MOH personnel and, to a limited extent, even the community. Since the opening of the school, 195 undergraduate students have entered the program (three classes of 48, 67 and 80, respectively). Forty-five physicians have entered the two-year master's program in general practice and the first fourteen graduated in March of this year.

The faculty have had opportunities for continuing medical education in the form of short and long-term training and have enjoyed access to subsidized housing and the salary incentives associated with the first group practice to be established in Egypt. The group practice is also emerging as a source of quality medical care at a reasonable cost for the city of Ismailia. The fee structure is not prohibitive and the resulting clientele is derived from all classes, and is not restricted to the middle class and elite as originally feared. (See Annex 8.)

What is most remarkable about the FOM program is its potential for having a rapid impact on the health services available to the community. In the first two years, students spent two days of each week in twelve health centers in Ismailia, Port Said and Suez Governorates. According to estimated figures, these centers are designed to serve the estimated 950,000 population of the three governorates (1976 Census). FOM/SCU surveys of patients and staff of these facilities show general satisfaction with the students' presence and participation. In addition, as of September 1983, two new graduates of the general practice master's program have returned as directors to health centers in Ismailia Governorate and additional GPs are awaiting assignment. These GPs can be expected to act as agents of change in improving the area's health services as well as supervisors and role models for undergraduate students.

In the Second Annual Curriculum Evaluation Conference, the Dean asked these questions: (1) How long should the agreement go on? (2) When should aid stop? and (3) When should the school be self-supporting? There is concern in any project that the assistance given can itself hamper the goal of developing an independent and viable institution. In general, the Cooperative Agreement has been used to develop the program of the Faculty of Medicine, its long

range capability and the competence of its staff. An outstanding example is the microbiology lab. The Cooperative Agreement supported an extensive amount of technical-assistance (see Annex 5), training and equipment to develop a laboratory which is highly competent and, with planned revenue generation, will be financially viable. Although the group practice is a more complex undertaking from an organizational point of view, this has been approached in a similar way, with even less technical assistance.

The problems which face the Faculty of Medicine are those which confront many young institutions. Its faculty, first of all, is young. Of a faculty of 152, 4 are professors, 3 are assistant professors, and 145 are lecturers, assistant lecturers and demonstrators. As an interim measure, the faculty, with support from the grant, has brought in senior faculty members from other universities to teach in certain specialties and to supervise the theses of junior faculty members. This will need to continue until additional senior faculty members are recruited to the permanent faculty or juniors are promoted. In the two departments where expatriates have played a role, there will be a need to identify Egyptian full-time senior faculty in the near future.

This project, to an unusual degree, is seeking to develop systems which will insure not only the long-term staffing needs of the institution, but also its financial requirements. The faculty, with assistance from the Cooperative Agreement, should continue these efforts so as to make adequate provision for funds for the continued support of a high quality program of medical education. What needs considerably more attention is the development of the administrative and management capability of the faculty. The need is to support an intensive effort on an urgent basis to develop the administrative systems and the competence of the staff. This will ensure the smooth functioning of the school over the long run as it expands its role to providing education for the clinical years ahead and to increasing its impact on the health services and health of the community it serves.

III. EDUCATIONAL PROGRAM

The major focus of project activities during this phase has been on the development of the educational program. The achievements are remarkable:

- o a faculty of 152 has been recruited
- o three years of an entirely new curriculum have been developed and the curriculum design for the final three years is underway
- o three classes of undergraduate students have been enrolled
- o three classes of students in a graduate master's program in general practice with the first class having graduated in March 1983
- o a functioning physical plant for teaching basic sciences has been developed, including a microbiology laboratory, medical library and media center
- o twelve off-campus teaching sites in Ministry of Health clinics are in use

This has been a complex and difficult undertaking and it is difficult to break out the individual components which have contributed to its successful progress. The planning, implementation and evaluation of the program are interwoven. A wide variety of actors have been involved. Nonetheless, three major areas can be identified:

- o the development of the curriculum for undergraduate and graduate programs
- o the recruitment, retention and development of the faculty
- o the development of the physical plant, including the supporting facilities for teaching basic sciences

A. CURRICULUM DEVELOPMENT

The Faculty of Medicine undertook a considerable challenge: to develop a curriculum which both drew on experience from diverse sources and yet which was integrated and adapted to Egypt. Under the leadership of the Dean, the faculty has played the principal role in developing this curriculum and preparing the written material which support the classroom and field program. The Cooperative Agreement has facilitated links between FOM/SCU and several other institutions which have made important contributions to the development of the problem based curriculum, notably Limburg University at Maastrichs, Holland and McMaster University in Canada. Several deans and faculty members from these institutions have participated in a consortium on curriculum development which has met on an intermittent basis. In addition, faculty members from Suez Canal University have participated in workshops and longer

training periods at these institutions under the auspices of the Cooperative Agreement. Although the total amount of time spent by consultants on problem based learning has been minimal (see Annex 5.a), the impact has been substantial.

1. Undergraduate Program

The basic features of the FOM/SCU program in all areas of development are 1) community-oriented, 2) community-based, 3) problem-based learning, and 4) evaluation. (For a detailed description of the program, see Nooman, Zohair, et al., "Introducing Community-Oriented, Problem-Based Medical Education in Egypt.") These program features have been incorporated into an educational program that has now been successfully implemented for the first two years.

The six-year undergraduate program comprises three phases: Phase I--Year 1; Phase II--Years 2 and 3; Phase III--Years 4, 5 and 6. The first phase deals with pre-pathogenesis and emphasizes the phases of life and man's interaction with his environment. The second phase of pathogenesis includes the bulk of the basic medical sciences presented as organ-system blocks. The third phase consists of the clinical clerkships. Phases are divided into a series of five or six week blocks with objectives for each. Learning within the blocks focuses on individual or community health problems.

This year the repeated implementation of Phase I for new Phase I students was successful. The objectives and format were maintained and the learning process flowed smoothly.

Phase II students were introduced to the natural history of disease through the organ-system block. This is the first time in Egyptian medical education that a multidisciplinary approach was centered around individual organ systems. Phase II implementation was exacting but proved successful as students adapted to the new educational process. At the end of two years of education, the faculty felt that FOM/SCU students were superior to their Egyptian peers in clinical skills, problem-solving abilities, knowledge of community health problems, and learning abilities. (See General Reports, Second Annual International Conference on Program Evaluation, Ismailia, September 1983.)

The learning activities of students are varied but the central theme is "problem based". There are small tutorial groups in which one problem is covered each week. Laboratory activities, seminars, and learning resources, such as the library and skills laboratory, are linked with the process.

Field training, a vital part of the program, is planned to enable the students to be involved in the community, become aware of public health problems and to develop clinical skills. The field program has three aspects, clinical experience in health centers, family visits and group field projects. Field training takes place in rural or urban health centers for two days a week. The training includes patient communication, observation, history taking, minor intervention procedures, and clinical examination. Students participate in field projects that relate to community health

problems, conducting the community work in small groups. The program is underway although the experience of the first two years reveals a need to improve program organization and preparation of field tutors.

At the end of the first year, the students are required to demonstrate clinical skills such as taking of patient histories and blood pressure before they are allowed to sit for written exams. The students show evidence of their learning experience in the field. They have some familiarity with the clinical problems observed in the rural and urban health centers and communities; they have made home visits and know something of the social, economic, and cultural conditions of the people served.

The students also see some of the limitations of the clinics. The working day for patient visits in many of these settings is compressed into a two-hour period--from 10:00 to 12:00 a.m. This leaves them only a limited period of the day for patient contact. In student evaluation of the field program, several problems were identified. Interviews with staff in the health clinics indicated that the students are generally well accepted.

In general, the students report a high degree of satisfaction with their educational process. Students who were interviewed at the Evaluation Conference were very enthusiastic and eagerly discussed the benefits of their mode of learning in contrast to the traditional system. They felt that the strongest points of their program were the early introduction to clinical work and the problem-based method of learning. At the same time, some students are uncomfortable with the lack of familiar testing and grading systems which would let them know how they are faring vis-a-vis their peers at other institutions. Until this experience has proven itself the students will continue to need reinforcement.

There is a need to promote English language competence among the students. English is currently taught two hours per week. In the majority of classes clinical training is done in Arabic, but English is required for use of the library in reference and literature research. Bilingual education is important for both the students and postgraduates.

A major problem confronting student status and the entire program stems from the ramifications of the unplanned and unexpected increase in the number of third class students expected to be admitted this year. It was agreed by the Supreme Council in Education when the school opened that class size be kept small (50 students) for five years so that implementation would be effective and resources adequate. This is particularly important in an innovative program until the faculty accommodates fully. The first class (1981) has 48 students, the second class (1982) has 67 students, and 99 students were assigned to the school for admission this year. (42 of the assigned students are from the exempted groups.) The Dean and his staff are working hard to lower the number of admissions. At the time of the writing of this report, admissions had been lowered to about 80 with the possibility of a further reduction.

Not surprisingly, the majority of development work has been accomplished by a small group of faculty members who are committed to this type of education.

This contributes to an uneven distribution of workload in the program development. It is expected that this problem will be resolved as faculty gain experience. Other issues relating to faculty development, such as recruitment of full-time members and low salaries, are addressed in the next section.

Student evaluation occurs throughout the learning process: weekly, end of block, and end of phase. Methods used are feedback sessions, self-assessment, and peer and tutor assessment examination of skills, attitude and knowledge.

As a major adjunct to the process of curriculum development, the Cooperative Agreement has funded a substantial effort in evaluation with the Center for Educational Development at the University of Illinois at Chicago. In fact, 75 percent of consultant days in Phase II spent on curriculum-related issues were spent on evaluation (see Annexes 6 and 5.a) and six faculty members have spent 1-4 weeks at CED. With this assistance, an enthusiastic faculty committee has developed a surprisingly extensive program evaluation process, the results of which have been presented at the two annual evaluation conferences.

The FOM/SCU has made extensive and generally effective use of evaluation. The two annual evaluation conferences have been occasions which have focused national and international attention on the accomplishments of the program and have provided a forum for open and candid discussion of problems facing the faculty. (See "Proceedings of the First Annual Curriculum Evaluation Conference". "The Proceedings of the Second Annual International Evaluation Conference" is in preparation.) A local, internal evaluation conference is also held annually to evaluate all aspects of the program. (See Annex 3.)

The evaluation conference attendees, both faculty and international consultants and this team, commend the openness of the evaluation process, but are concerned about the amount of time required of faculty and students. The team is also concerned about the very large portion of technical assistance funded by the Cooperative Agreement focused on this single area. Now that the demonstration of methodologies has been made, it may be wise to free some of this time for other faculty endeavors. Unquestionably, some economies of time can be made since the faculty and students have gained experience in evaluation methodologies. In the future, with the mounting requirements of an expanding program, it would be wise to narrow the focus evaluation efforts to critical areas, such as student clinical performance and program impact on health services. As the students approach the last year of medical school, some consideration should be given to some type of external evaluation, perhaps through the use of external examiners.

2. Graduate Program in General Practice

The graduate program in General Practice was established to provide a core of doctors specialized in primary care and oriented toward community health. It also provides an opportunity for general practitioners in the MOH and others to continue their education. In March of 1983, the first graduates completed their program. (See Annex 4.) Two of these graduates are now directors of health centers in Ismailia where student clinical training

occurs. The evaluation team was impressed with the calibre of these graduates and their enthusiasm for improving the health services.

The GP program is an important link between improving health services and medical education. Efforts should continue to enroll MOH physicians in the postgraduate program, especially those from the Suez Canal area. The MOH should then assign these graduates to positions in the health facilities of the area with priority given to those sites used for teaching students. This will insure adequate supervision of students in clinical sites and achieve rapid impact on community health services.

In addition it will be important to seek ways to support these physicians once they are assigned to health facilities. There is always the danger that, faced by the frustrations of working in a difficult setting, they will be unable to sustain their enthusiasm and plans.

A long-term advisor was made available for one year under the Cooperative Agreement (1982-83) to assist in clinical supervision. Additional technical assistance of an intermittent nature is planned for 1983-84 and may be necessary beyond that date to insure this vital component. Two general practice demonstrators have recently returned from study in England and in time will be able to assume responsibility for clinical supervision and other program elements.

B. Faculty Recruitment, Development and Promotion

The second major area of Cooperative Agreement assistance has been to support the development of a committed and competent faculty resident in the Canal governorates.

The initial problem facing the school was to attract promising faculty members who could help to implement the school's innovative program. It was a challenge to recruit faculty to a new school with a new approach in a town half destroyed by war. In addition, all available candidates had been trained under the traditional system.

Today, a young, innovative faculty has been established which has proved to be creative and resilient in developing and implementing FOM/SCU's program. The faculty is comprised largely of junior members. There are 4 professors, 3 assistant professors and about 145 lecturers, assistant lecturers and demonstrators. There are also 26 resident physicians. Senior faculty members from other universities teach in certain specialties (basic sciences) and supervise the theses of junior faculty members.

To attract and retain faculty, the university has made a wide variety of incentives available to supplement low base faculty incomes, including bonuses, subsidized housing and research opportunities. Two large apartment blocks have been purchased with non-AID funds and made available to FOM/SCU faculty members in Ismailia. Under the Cooperative Agreement, there are funds for the purchase of additional apartments for faculty members.

The Cooperative Agreement has also supported the development of a group practice for faculty members--the first of its kind in Egypt. The group practice has three goals: to provide incentives associated with clinical practice to faculty members; to provide an opportunity for faculty members to practice medicine but, at the same time, deter them from opening private practices which would detract from their commitments to teaching; and to provide a source of ongoing revenues for the school itself through the contribution of a portion of group practice revenues to the school.

The Group Practice opened in November 1982--on schedule--and is functioning in a six-story building which was renovated and largely equipped under the Cooperative Agreement. According to plan, the Cooperative Agreement is subsidizing the group practice for no more than sixteen months after its opening. As revenues have increased, the subsidy has declined (see Table I), however, in recent months, revenues and, as a result, the subsidy has fluctuated. Boston University is monitoring the subsidy issue closely and has estimated that the phase-out is on schedule. This will need continued close monitoring until the subsidy is phased out.

The salary incentives associated with the group practice were viewed in an earlier evaluation report as inappropriate. However, these incentives should be evaluated against their purpose, to attract and retain faculty in the Suez Canal area. The compensation package was intended to replace foregone income. The fact that only a small percentage of the faculty joined the group practice and that attracting permanent qualified senior faculty remains difficult would indicate that the compensation package is not excessive. Furthermore, without the establishment of the group practice early in the program, it is likely that the physicians would have established individual private practices which would not only not have the prospect of contributing to faculty revenues, but could actually detract from faculty commitment to teaching, as has too often been the case in other medical faculties.

Additional group practices have been proposed for faculty members who will reside in Port Said and Suez. At this date, this is premature. The group practice is not yet financially viable. Before any consideration is given to expansion, there should also be an assessment of how effective the Group Practice has been at achieving its goals with respect to faculty retention, faculty availability and the revenue needs of the school.

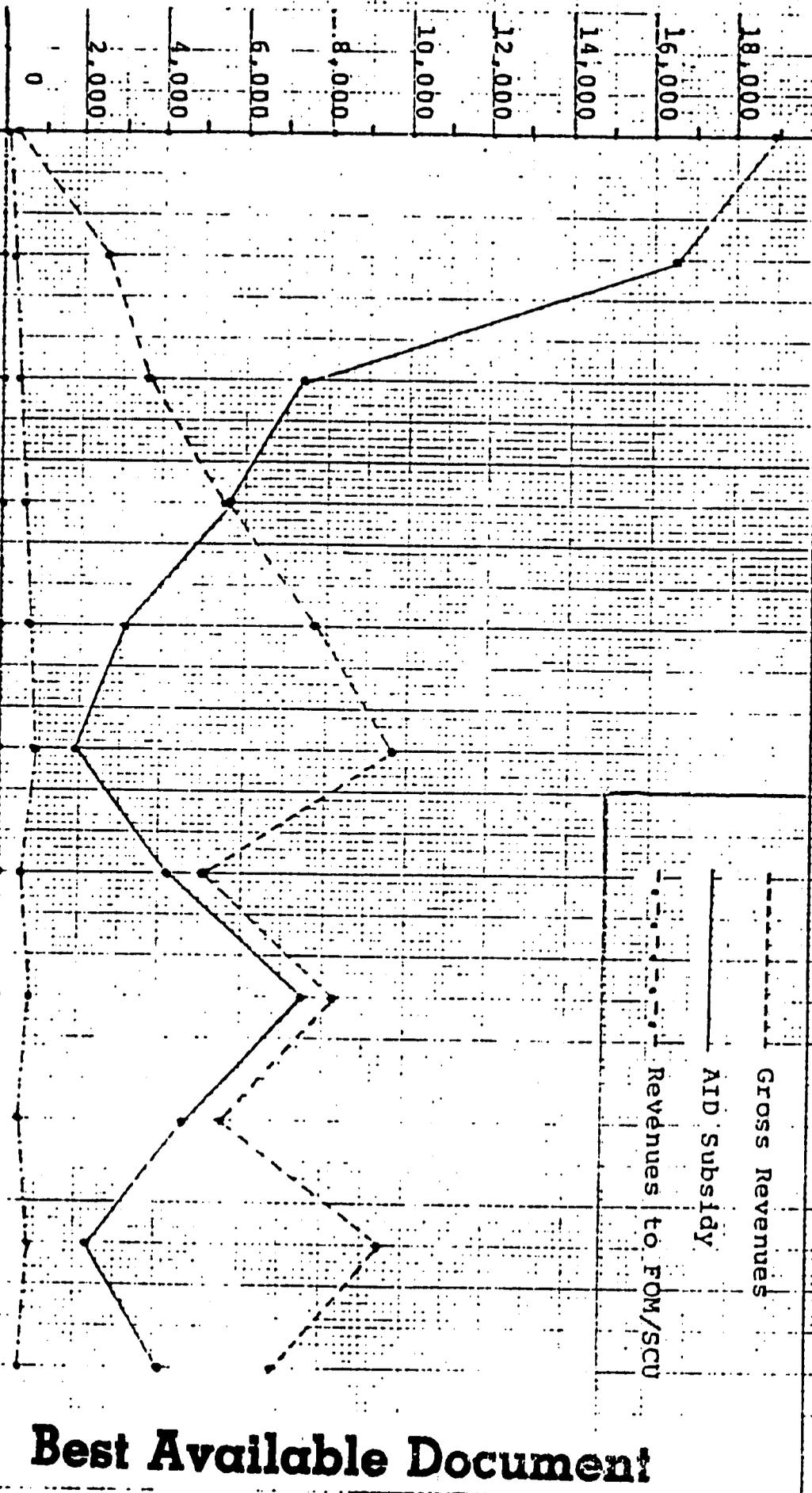
The Cooperative Agreement has provided opportunities for training and continuing medical education for faculty members. More than twenty-five faculty members have had some type of participant training in the last fourteen months. (See Annex 6.) Five junior faculty members are currently on long-term training in the U.S. In addition, the director of the microbiology lab received long-term training under a Peace Fellowship.

The Cooperative Agreement also provides funding for junior faculty research. It is hoped that this fund will assist faculty members in carrying out research which will contribute scientifically and also serve as one of the bases for promotion. No funds have been dispersed as of this date, but draft criteria for the use of the fund have been drawn up.

TABLE I
Group Practice, Revenues and Subsidy Trends
(in Egyptian pounds)

Nov. 1982 - Sept. 1983

LE



Best Available Document

24a

Selected professors from other Egyptian medical schools have been hired to supplement the teaching staff in the basic sciences. As additional faculty are recruited and as junior faculty mature and are promoted, this element can be phased out. For the moment it is necessary to complement the full-time teaching staff. It also appears to serve a second function of maintaining links with other Faculties of Medicine and may be important in expanding the impact of FOM/SCU.

C. DEVELOPMENT OF LEARNING RESOURCES AND THE PHYSICAL PLANT

1. Learning Resources

The microbiology, pathology and anatomy laboratories are established and functioning. The hematology laboratory has not yet been developed but is scheduled for completion this year. The microbiology laboratory has been developed through a four-phase plan with consultants from the University of Washington at Seattle. It has a sound functioning administration, quality controls, job descriptions, protocols and trained staff. All of the laboratories have adequate space and with further development will be excellent learning laboratories for students.

The library, with its large study area, is a key resource for students and faculty. The number and type of books seem adequate for this stage of program development. Internal mechanisms for purchasing journals and texts, rearranging space for expansion, and general administration are not present due to the difficulty in recruiting a permanent librarian.

Although great progress has been made in the development of the library, the recruitment of a trained medical librarian remains a central issue which begs for a solution. Every effort should be made to fill this position immediately. As four more classes are enrolled and as off-campus activities expand, the adequacy of the library needs to be considered. With the approach of Phase III, attention needs to be given to access to textbooks and to the literature available in the off-campus, clinical teaching sites. In Years 4, 5, and 6, the students will be spending most of their time at these clinical facilities and the intellectual quality of their work will almost certainly be diminished if library resources are not available.

An Audio-Visual Center has been equipped and core staff has been trained. The staff has begun to develop curriculum materials, slides and other visuals for the program. A video system is in process. The Center, however, lacks an internal management system for administration and coordination of its activities, including a budget. This task is planned and will be the focus of Boston University media consultants in the next few months.

2. Physical plant

a. Building 29

The major renovations of Building 29, which houses the Faculty of Medicine, were completed before the first-year students were admitted (1981). The building is a large three-story structure that was originally

built as part of a factory for dyeing wool and cotton. At the present time there is sufficient space for offices, classrooms, lecture theaters, laboratories, the library and a learning resource unit (A-V media center). However, with a fairly increase in students for the next three years and an increase in faculty members and administrative staff as the school reaches its full capacity, space may be limited and crowded. Planning should begin now for projected needs for space in relationship to increasing numbers of faculty, students and staff.

In 1983, certain improvements were made in Building 29. Accoustical ceilings were installed in eight classrooms, one of the conference rooms and the A-V media center.

b. Equipment maintenance

It was decided to establish a maintenance department to maintain the equipment that is used for medical teaching. The program has encountered several difficulties. Four people were trained in basic equipment maintenance through a subgrant with the Glasgow project in Abassia renewed late in 1982. Of the four who have completed basic training, three have stayed on to work at the school. Since none of them are senior enough to supervise the others, FOM/SCU began recruiting a supervisor, but this has been unsuccessful to date. The Glasgow/Abassia group is reviewing of the situation and plans to submit a proposal to the Dean for a new scope of work.

c. Supporting facilities

Other supporting facilities and learning resources, such as laboratories, A-V media center and library (see previous section), are in various stages of development. All need additional assistance to become fully operational and adequate for expanding educational needs. Each facility should have a functioning administration structure, sufficient resources (equipment, models, books, specimens, etc.), a purchase, supply and maintenance plan, and a budget.

D. RECOMMENDATIONS

1. General Recommendations

a. Class size

Every effort should continue to be made to fulfill the objective of a relatively small class size. If class size increases rapidly, the chances for success are minimized.

b. Faculty recruitment and retention

Efforts should continue to recruit full-time faculty who are resident in the Suez Canal area. The extensive commuting by large numbers of faculty isolates them from local health problems and professionals and makes inroads on their availability for informal contact with students.

The potential solutions are several.

(1) A more comprehensive approach to the eligibility for faculty promotion than is now practiced. This entails taking into account other factors besides scientific research, such as the amount and types of efforts spent in education, research in medical education, and creative or innovative activities done in the school.

(2) Continued efforts to improve incomes for full-time faculty.

(3) Assessment of the need for additional incentives, such as expansion of the group practice to Port Said and Suez, housing or schools for the children of faculty members, to determine the effect of this on permanent retention of faculty.

c. Evaluation and research

In light of the mounting requirements of an expanding program, the team recommends focusing evaluation efforts more sharply on critical areas, including student clinical performance and program impact on health services.

Opportunities and time for research activities are an important faculty issue, as research is required for promotion. The faculty has devoted much of their time and energy to program development yet the system does not generally recognize contributions made in the fields of medical education and community service in considerations for promotion. In a program demanding the development of an innovative curriculum, there is limited time for research. This is a serious problem because it threatens incentives to the faculty to contribute to the educational program. A fund for junior faculty research has been established. However, as of this writing, no criteria has been established for utilizing these funds. This may be an opportunity to involve senior researchers from other universities --researchers in medicine, public health and education--so that the research fund will be accepted as a basis for promotion.

Community-oriented research should, of course, play a major role in a faculty committed to having an impact on community health services and to community-based learning. One would expect that FOM/SCU will emerge as a leader in this type of research in Egypt. This is the moment to review the Faculty's program in this key area to determine what are the future needs. The evaluation team identified epidemiology as an area which needs development and possible technical assistance. The Deans and the faculty may identify other areas. The Dept. of Community Medicine should, of course, play a major role in this process. However, it would seem to be a mistake to confine this responsibility to a single department. Rather, knowledge of the demographic and epidemiological characteristics of the Suez Canal area should suffuse the Faculty, the curriculum and the research program.

d. Epidemiology and biostatistics

The team recommends greater emphasis on the theory and methods of epidemiology and biostatistics, especially in the design and implementation of field studies. The FOM should identify and take steps to strengthen this program component.

e. The curriculum

An additional review by faculty members and consultants may be desirable to explore alternatives in the design of the Phase III curriculum before firmly placing the proposed program in effect.

A community-based program requires a multidisciplinary approach to provide the students with the required observational and analytical techniques as well as to provide the data base for improving health services. Since community-oriented teaching is heavily dependent on the theory and methods of epidemiology and biostatistics, much greater emphasis on teaching in these fields is necessary, as well as environmental health and allied behavioral sciences. These disciplines should be pervasive in the design and implementation of field studies. As a consequence of such teaching, students should develop improved ability to analyze problems and to read the literature critically. The Faculty of Medicine, with the assistance of the Cooperative Agreement, should identify and take steps to strengthen this critical component of the program. Possibilities to be considered include establishment of links with the High Institute for Public Health in Alexandria, recruitment of additional permanent faculty, and selection of intermittent consultants.

f. Library

The recruitment of a trained medical librarian is essential as the program expands. Every effort should be made to fill this position immediately. Attention should also be given to access to textbooks and literature in the off-campus, clinical teaching sites.

g. Graduate program in general practice

The team recommends that FOM/SCU should continue and even intensify its efforts to enroll Ministry of Health physicians in the postgraduate program in general practice. Highest priority should be given to candidates from the Suez Canal governorates, including, in the future, North and South Sinai. The Ministry of Health, in turn, should take all necessary steps to place the graduates of this program in clinical positions in Suez Canal governorate health facilities, giving priority to teaching sites for undergraduate medical students.

h. Technical assistance

The types of technical assistance needed in the remainder of the Cooperative Agreement will change in light of the achievements of the last eighteen months and the need to focus more tightly on priorities. In some

areas such as evaluation, audio-visual teaching methods, and planning for problem-based curriculum, the need for technical assistance may be reduced as the competence of FOM/SCU in these areas is developed and new priorities are established. In contrast, new areas of technical assistance will be needed for the development of the curriculum for the clinical years, the administrative and management needs of a rapidly growing school and the expansion of the program's community focus. The team identified the following areas of priority need:

- (1) management and administration;
- (2) community medicine, epidemiology and biostatistics;
- (3) research methodology.

The team also recommends an increasing reliance, to the extent feasible, on consultants from Egyptian universities and institutes.

2. Recommendations to AID

Support to the educational program in the remainder of Phase II should be focused primarily on priority areas required by the development of the curriculum for the clinical years, by the need for strengthening the community-based program, and for the development of a community-oriented multidisciplinary research program.

IV. HEALTH SERVICES AND COORDINATION WITH THE MINISTRY OF HEALTH

A. OVERVIEW

A remarkable aspect of the FOM/SCU program is its potential for having a rapid impact on the health services available to the communities in the five governorates of the Suez area (The 1976 census reports the following populations of the five governorates: Ismailia, 356,800; Port Said, 400,000; Suez, 196,709; and North and South Sinai, 147,105). The integration of the educational program at FOM/SCU with health services in the Suez Canal governorates is one of the guiding objectives of the school and one of the two stated purposes of this project.

Two of the stated goals of FOM/SCU relate specifically to health services and collaboration with the Ministry of Health.

- a. To qualify physicians whose primary objectives will be to provide health care in a combined hospital/community system with major emphasis on primary care.
- b. To develop and implement with the Ministry of Health, and other health care delivery bodies, an integrated system for comprehensive health care delivery and health manpower development in the Suez Canal area and Sinai.

To attain these two goals, a strong working relationship between the FOM/SCU and the MOH must exist which includes obligations for both. Considerable progress has been made in relating the program to the health services and improving the clinical facilities and personnel. However, much remains to be done.

1. Field Training

In the first two years of their education (1981-83), students were placed in twelve health centers in Ismailia, Port Said and Suez Governorates (see Map I). The evaluation team visited the health facilities in these areas and found a rich complex of services available. (See Annex 7 for list and descriptions.) The health centers were located in rural and urban settings, offering preventive and outpatient treatment services. Most had small laboratories and stocked pharmacies. Four health centers have been renovated for student clinical learning and include a teaching annex. The team visited all of the renovated health centers and found that work at the sites has now been completed. These renovations were plagued with delays and to expedite future construction and renovation, funding is being transferred to the Cooperative Agreement and an engineer has been hired to supervise design and construction.

Interestingly, there appears to have already been some positive impact on health services by virtue of the teaching in health facilities. Patients report strong support for the students' involvement and in some clinics there

MAP
MAADI

PORT-SAID

- * Port Said General Hospital
- Kuwait
- Kabuti

- Health Center Sites Used for Training, 1981/82/83
 - * Proposed Additional Training Sites
-  Teaching Annex

NORTH ↑

80 km.

* Abu Atwa



TO ZAGAZIG

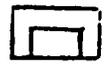
* Abu Suweir



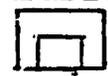
ISMAILIA

- Sabaa Banat
- Hekr
- Shohada
- * Sheikh Zayed

• Sabaa Abar



• Sarabium



TO CAIRO

Abu Sultan Rural Hospital

68 km.

SUEZ

- * Hospital Complex
- Sabah
- Ganaian
- Gabalaet

SCHEMATIC MAP
TRAINING SITES-FOM/SCU

30a

appears to be a marked increase in attendance on the days when students are known to be present. The direct impact of the faculty on health services has the potential of increasing markedly with the placement in health facilities of the first graduates of the general practice master's program.

In discussions with the team, MOH officials and health professionals revealed a willingness to participate in the field teaching program. Some of the centers which have not yet received students were eager for their arrival; those that had students in the past two years wanted to continue despite the extra time and work that the program required of the staff. They requested information concerning the progress of the school program and the plans for the use of their facilities and personnel. Health professionals in these communities have high expectations for involvement in the FOM/SCU program. This suggests the need for collaborative planning by FOM/SCU and the MOH to coordinate the specific participation of each and to upgrade the continuing education program. The governors, other officials and citizens generally have a high interest in making the program work. They view it as extremely important for improving the health status of the people.

As the FOM/SCU students enter their clinical training period, hospital facilities will be needed for student clerkships during the last three years of the program. Hospitals in the area have 250-400 bed capacity each and offer outpatient clinics as well as emergency and inpatient services. In Suez there is a "hospital complex" consisting of a general hospital, an infectious disease hospital and a chest hospital located adjacent to each other.

In contrast to the Suez hospital situation, the general hospital in Ismailia is in extremely poor condition and thought to be "not renovatable". Thus, the FOM/SCU has defined the need for a new teaching hospital in Ismailia and are considering two options that are available: 1) construction of a new hospital, and 2) conversion of a recently constructed, unoccupied police building into a hospital. Technical studies and architectural analysis are underway to evaluate these alternatives. A new teaching hospital facility in Ismailia would be a valuable addition for patient care as well as an important resource for teaching.

In an effort to facilitate medical education and health services integration, the Dean has described a proposed new arrangement for the collaborative administration of clinical teaching resources between the FOM and MOH. This arrangement would occur through a proposed new law to authorize the establishment of a "Teaching Hospitals and Institutions Authority" (THIA). This seems to be a constructive proposal which should be pursued. It has the potentiality for bringing the clinical resources of the three governorates into one orderly administrative arrangement for the hospitals with a total of over 1,000 beds, their outpatient departments and urban and rural clinics available for teaching programs. In addition, it would seem logical to attempt to link the teaching program with the rural health project of the MOH as well as with its projects in oral rehydration, childhood immunizations and family planning.

In addition to the undergraduate field training program, as of September 1983, two new graduates of the general practice master's program have returned

as directors of health centers in Ismailia Governorate and additional general practitioners are awaiting assignment. Both of the centers are used for the clinical teaching program of FOM/SCU. These general practitioners can be expected to act as agents of change in improving the area's health services as well as supervisors and role models for undergraduate students. Continuing these initial steps in assigning FOM/SCU general practice graduates as directors of health centers in the area will extend the school's impact into the community. This will require close coordination and planning with the MOH.

B. IMPACT OF THE EDUCATIONAL PROGRAM ON HEALTH SERVICES

With the early attention and priority on the educational program, the aspects of the project related to health services improvement now need to receive increased emphasis if this important objective is to be realized.

There are substantial opportunities for the Cooperative Agreement to support this important aspect of the program. A number of elements had been foreseen in the Phase II implementation plan:

- o renovation at health centers to accommodate student training (Phase I)
- o seminars and workshops in primary care
- o in-service training for nurses at clinical training sites
- o area-wide provider survey, data collection and information system
- o certification of primary care trainers
- o designs for Ismailia general hospital

As the school is community-oriented, so one of its primary functions is to identify the health problems of the Egyptian community. This is a basic requirement for the Ministry of Health in order to provide a health profile of the country and formulate health policy and plans to solve health problems. Once this is done, the health services will be geared and directed in the proper channel.

Emphasis on primary health care is one of the main goals of the FOM/SCU. The school will graduate doctors trained in primary health care who will administer the large numbers of urban and rural health centers which the Ministry of Health has established. This will have a great impact on upgrading the services these programs are providing, and hence will relieve the burden on the public. Health manpower will be more efficiently utilized.

Allied health personnel in the health centers, particularly nursing, expressed a need for improving their skills to team members. Many of the nurses have not had any continuing education courses since their initial training. They are anxious to improve their skills in order to offer high quality services and to improve their center as a clinical teaching site for

students. The training needs of the non-physician staff vary in each center. Thus, an in-service, on-the-site training program based on an analysis of specific needs would be a practical and effective approach.

Along with training and upgrading skills is the need to provide adequate incentives for nursing staffs and other professional health personnel. The provision of incentives is viewed as an important issue by health center staff. The possibilities should be investigated jointly. One caveat is in order. While it is important to seek ways to enhance health services, it is also important that this fledgling institution not be stretched so far as to impair its ability to carry out its central educational purpose. To the extent possible, it is desirable that activities identified are complementary and additive and do not require extensive additional responsibilities for the deans and faculty.

The group practice is an additional resource that can potentially improve health services. The group practice is functioning and providing services to its clientele through the faculty who work there. It is still in the early stages of implementation, so impact cannot be measured at this time. A random sample of patient records, Table II, shows that the bulk of the clientele, 95%, are from Ismailia. The average age of the patients is 35. Patient occupations show a wide variety; clearly the Group Practice is not serving a limited elite clientele.

It is premature to make a judgment about possible replicability and extension to Port Said or Suez. Close monitoring of its progress over the next year and evaluation of its impact on faculty retention, availability and revenues to the school should guide future expansion or replication.

Integrating the medical school with the hospitals, clinics and health centers of the Ministry of Health, and allowing the faculty members to work in these facilities, will undoubtedly raise the academic standards of all these institutions with benefits to the citizens and patients. As discussed above, initial steps are being taken, but this process has a great deal more potential and should be encouraged. Each party has several potential roles.

1. The role of the school in developing this relationship

a. The school, through a community-based program of education and research, can contribute to improved health services. The faculty and students can help to a great extent by conducting health surveys and field studies in the local community so that a health profile of the community can be made in a sound, scientific way to serve as a basis for directing health services and resources.

b. The students and postgraduates, through their training programs in the rural and urban health centers and hospitals, can offer additional services by working as active members of the health team.

c. Faculty staff can also work in MOH facilities as consultants, offering their skills and experiences, hence upgrading the services.

d. The school, by adopting a community-oriented program, will produce doctors well educated and better trained in solving community health problems. Over the long run, this will contribute to the upgrading of the efficiency and utilization of the manpower component of the health service delivery system.

e. The FOM/SCU can play an important role in the continuing education of area health personnel. This can, in the short term, be as modest as inviting MOH personnel to FOM/SCU lectures and conferences or considering opening library and laboratory facilities to them.

2. The role of the Ministry of Health in developing this relationship

a. The MOH, in accepting students and postgraduates for training in health centers and hospitals, can facilitate their clinical learning experience by providing additional space for teaching and other facilities to the extent possible.

b. MOH and FOM/SCU can develop a system by which MOH doctors share in the training of the medical students and postgraduate trainees and agree on ways for them to be compensated for their services.

c. MOH can upgrade the physical status of the training areas and convert them into suitable training and teaching sites.

d. The MOH can promote complementary programs to upgrade nursing and allied health personnel especially in training sites in collaboration with the Faculty of Medicine.

e. The MOH can assign trained graduates to MOH posts in ways so as to maximize their impact on health services and their contribution to clinical training.

C. RECOMMENDATIONS

1. General Recommendations

a. The need for a high level coordinating council

Since Phase III is so heavily dependent on clinical resources, it seems necessary--in addition to the Permanent Committee which meets infrequently--that a coordinating council of representatives of the FOM/SCU, the governorates, and the MOH be set up shortly.

Because of the well defined population in the region of the Suez Canal, there is the possibility of developing a model system of clinical care, data collection, and improvement of the health of the population through the teaching and research which is associated with the delivery of health services.

b. Coordination of clinical teaching programs in the three centers of Ismailia, Port Said, and Suez

There is a rich complex of services in each of these centers which should be linked to the clinical teaching program. As the programs and assignments for students grow in complexity, there will be a need for some representative of the Dean to be available in each community to assure smooth functioning of the program and plan for continuing medical education.

c. Nursing and allied health personnel

With the project's focus on working in and improving health services, the physicians and students are increasingly aware of the need to upgrade the skill levels of the nursing and allied health personnel in the clinics.

It is recommended that in-service, on-site training be done for each clinical facility where training occurs. A first step in this process should be an analysis of nursing and allied health personnel needs.

Linked with that is the need to provide adequate incentives for the nursing staffs and other professional health personnel. The team recommends that ways be found to address this problem which will not detract from the faculty's focus on the development of its academic program.

It would be well to consider for the future a program in nursing education which would be comparable in its innovations and impact as the program of the medical school.

d. A teaching hospital in the Ismailia region

The FOM has defined the need for a new teaching hospital facility in Ismailia. At least two plans are being considered:

- (1) The construction of a new hospital.
- (2) The conversion of a recently constructed, but unoccupied, police building.

The team did not have the resources to evaluate these alternatives in depth since there are location, design and cost issues involved. We recommend that the technical studies of these options be continued.

e. Teaching Hospitals and Institutions Authority (THIA)

The proposed new law "Teaching Hospitals and Institutions Authority" (THIA) is a constructive proposal for better administration of clinical teaching resources. This proposal should be pursued.

f. Group practice

It is recommended that the Group Practice should be monitored closely for its impact on health services, its effect on faculty retention and its possibility replicability or extension to Port Said and Suez.

2. Recommendations to AID

To strengthen the skills and motivation of nursing and other health personnel, the Ministry of Health and AID, in consultation with the FOM/SCU, should consider including one or more of the Suez Canal governorates in the planned expansion of the Strengthening Rural Health Delivery Project.

V. MANAGEMENT AND ADMINISTRATION

A. OVERVIEW

Medical centers are inherently complex institutions to manage. In the U.S., the challenge of this complexity has resulted in numerous publications (see a recent book: The Sick Citadel, by Lewis and Sheps). The development of the FOM/SCU is no exception.

There seem to be stresses within the system at SCU. These seem to result in part from the unique arrangements bringing together the university administration, the FOM, USAID, Boston University, the MOH and the governorates.

The internal administration and management of the FOM/SCU is governed by the General Egyptian Government Regulations and the Special Regulation of the Management of the Egyptian Universities. According to the Egyptian laws, the school must be administered by nationals (i.e., Egyptians), although foreign consultants and experts can be used for training programs or for certain assignments approved by the President of the University.

The internal evaluation reports and discussions with the Dean reveals that the internal management system is not efficient. This, of course, will have a negative effect on the progress of the school. It contributes to the overburdened workload of the Dean in daily operations of the school.

The Administrative structure of the school consists of:

1. The Dean;
2. Two Vice Deans (for Student Affairs, and Research and Postgraduate Education);
3. The Faculty Council;
4. Fourteen Departments;
5. Thirteen Committees (each has a chairman);
6. Administration support staff;
7. The Secretary General of the School and his assistants;
8. The Registrar for Student Affairs and his assistants;
9. The Registrar for Postgraduate Studies and Research and his assistants;
10. Various non-academic administrative units:
 - a. Purchaser of Supplies;
 - b. Maintenance;

- c. Public Relations;
- d. Transportation;
- e. Students Hostels;
- f. Others, etc.

The administrative framework is generally adequate. It runs fairly efficiently in the other medical schools. Cairo University Medical School, with a similar structure, administers a program with over 20,000 undergraduate students and about 3,000 postgraduates.

However, there are differences with the application of this framework at FOM/SCU. The FOM/SCU's emphasis on an integrated curriculum means that departments have considerably less importance than at traditional universities. Secondly, it is through the committees that most of the work is done. Junior and senior faculty members from all departments work together in the committees and submit their recommendations for approval by the Faculty Council. In this way, the departments work through the committees. There have been problems with this arrangement, but generally the faculty supports it. It is felt that the committees help to decentralize authority and integrate school operations.

One of the main problems that FOM/SCU faces is the centralization of authority. There is an urgent need for delegation of authority to the Vice Deans, the heads of the departments, and the chairmen of the interdepartmental committees. In this way, the Dean can be relieved from the routine daily business of the school and concentrate on policy making and external relations. This requires that the people working for him must seriously accept the authority delegated to them, always be present, and accept the objectives and goals of the school.

The Dean and the two Vice Deans are responsible directly for the educational and research activities of the school. In the past few years, educational activities naturally took most of their time. The Secretary General of the school is a very important figure in operating the school, particularly as he is the head of all support staff. Provided that he is efficient and well trained in management and administration, he can relieve the Dean's administrative burden.

Problem areas of internal management of the FOM/SCU are:

1. The Dean is overworked and needs assistance from a larger number of committed senior and junior faculty members.
2. Some of the faculty members are not committed and act more as onlookers than participants. There is a need for more faculty to participate.
3. The decisions of the interdepartmental committees must be followed and must be binding on the heads of the departments. It is highly advisable to have junior faculty on these committees.

4. The Secretary General of the school, a large number of his assistants, and the majority of the support staff do not come from a university background nor have they participated in appropriate training programs. There does not appear to be a shortage in numbers. It is the same problem--sufficient numbers but a lack of appropriate training, experience and supervision to insure quality.

A number of steps need to be taken to improve school administration. Job descriptions are needed as well as a system of personnel supervision, evaluation and reward. Where incentives are deserved, the required revenues may be generated by the Group Practice, the microbiology lab, etc. Where individuals are non-productive, they should not be retained. Training of staff is important but this needs to be accompanied by administrative changes including improved supervision of the support staff. As an example, three of the maintenance specialists trained at Abbassia have returned to the university but are not currently productive because they lack adequate supervision. Administrative deficiencies are preventing the effective use of trained personnel.

Under the Cooperative Agreement, there have been a number of activities supportive of the development of the university's administrative and management systems. There have been consultancies, training of FOM/SCU faculty and the development of courses in management for senior staff and faculty. Considerable attention has been paid to administrative and management issues pertaining to the Group Practice and, within the university, the microbiology lab. There are both ongoing and planned activities to develop revenue generating activities which will provide continuing sources of revenues for the school.

An example of the latter is the work carried out with the Group Practice. Opened in November 1982, physicians who belong to the Group Practice have agreed to pool their revenues and to contribute ten percent of gross revenues to the Faculty of Medicine. Boston University has assisted the Group Practice in establishing its organizational structure and financial policies and procedures. Group Practice members attended a mobile seminar that visited group practices in the United States. There have been a series of consultancies to assist in developing fee scales, accounting procedures, etc. In the first eight months of operation, the Group Practice generated L.E. 4,307 to be used by FOM/SCU (Table 1). However, to date, there has been no mechanism established by which these revenues can actually be transferred and expended by FOM/SCU.

In general, the focus of the BU project staff has been on developing the budgetary basis for the long term financial viability of the school and the administrative structures for independent units such as the Group Practice and the microbiology laboratory. Assistance with strengthening the faculty's internal management system has proceeded more slowly. Some training in business and administration has been conducted for the support staff, but planned courses and workshops for faculty in administrative positions have not yet taken place. There have been difficulties in recruitment for the senior resident manager who was to have been responsible for line management and for the coordination and provision of technical assistance in the development of management and administrative systems. To date, this position is not filled.

This area requires urgent attention. With the addition of each class of students and the proliferation of clinical teaching sites, the administrative demands grow. This increases the demands on the Dean, since there has not been comparable growth in the administrative staff or administrative arrangements. The Dean underscored this problem in his "Address to the Second Annual Program Evaluation Conference of the FOM/SCU" on September 24, 1983.

The following recommendations, therefore, are in order.

B. RECOMMENDATIONS

1. General Recommendations: Augmentation of the Internal Administrative Structure of the Faculty of Medicine

a. Begin by having a workshop or small conference on "University Administration in Egypt" to be held in Cairo or Ismailia, and to which senior administrators from Cairo, Ain-Shams, Alexandria, etc., Universities are invited together with the administration of Suez Canal University and its Faculty of Medicine. The pattern of Egyptian administration in the universities should be extensively discussed with the focus on improving administration at FOM/SCU.

b. Agree with the older universities to accept some administrators from FOM/SCU for training in the other universities.

c. Agree with the Institute of High Administration in Cairo or some other entity, to conduct training programs for the administrators of the FOM/SCU. The program should be tailored to fit the university pattern.

d. Consider possible recruitment of one or more senior administrators in university administration, such as may be available from the pool of people who have attained retirement age, to assess FOM/SCU's administrative needs and to help develop an administrative plan. Such a person may be from an older university, such as Cairo, Ain-Shams, or Alexandria, who will be willing to give service to FOM/SCU in the capacity of a consultant in administration to the Dean. The University regulations permit this arrangement. This is also consistent with the specification for a Senior Resident Manager in the Cooperative Agreement.

e. Young, promising administrators from FOM/SCU, after passing through training programs in Egypt, could be sent to Boston University or elsewhere for further, more advanced training.

f. Delegate more responsibility to faculty members. While the faculty committee structure seems adequate for conducting the teaching program, an administrative support system to facilitate the functioning of the Dean's office and the faculty should be part of the management plan.

g. The administration of the educational process and the clinical and field training program will pose an increasing administrative burden. Two steps should be taken:

- o Medical Education Center or office should be established, headed by one of the Vice Deans.
- o A similar office for liaison between the school and the Ministry of Health should be established.

2. Recommendations to AID

Support for the development of the administrative, management and financial capability, as well as the financial capacity, of the Faculty of Medicine should be a principal focus of plans and AID monitoring for the remainder of Phase II activity. Targets and performance indicators should be developed to assist in monitoring. As a first essential step, the position of senior resident manager should be filled.

VI. THE FUTURE

A. LESSONS LEARNED

A complex program of this nature has the potential to teach many things. A few of the lessons we have learned are the following:

1. That it is possible to bring into being a complex institutional invention in an incredibly short period of time. Although planning had gone on since 1977, the Cooperative Agreement was not signed until 1980. Yet a third class has just entered the medical school.

In order to accomplish this, the requirements are:

a. An imaginative, inspired, committed leadership with creative, innovative ideas which match the needs of the time.

b. Creativity in administration which provides for a high order of flexibility and a minimum of constraints. While conditions are never truly optimal, the administrative arrangements made possible by the Agreement between the Government of Egypt and USAID and the subsequent Cooperative Agreement with Boston University have been remarkably effective arrangements.

2. That a complex blend of consultation and technical assistance from various sources (example: Boston University and Center for Medical Education of the U.S., McMaster in Canada, Maastricht in Holland) can be brought together quickly and effectively in the service of an innovative program. It is a tribute to leadership and administration and to the skills of the consultants that the effects have been so successful.

3. That it is possible to integrate a program in medical education into the existing health services system for the benefit of both. While these objectives have not yet been fully achieved, an excellent start has been made. If progress continues, a primary goal of the medical school--better health for the people of the region--should become a reality.

4. That a clearly defined set of goals, and a dedication not to deviate from these while retaining flexibility in implementation is basic to successful institutional innovation.

5. That sound educational innovations attract highly talented students who are highly responsive to leadership and to the potentiality for serving their people.

B. FUTURE TRENDS

The innovative program at FOM/SCU represents a significant departure from the system of Egyptian medical education. There is considerable interest on the part of other medical schools in Egypt in the innovations at Ismailia as

evidenced by their broad participation at the recent evaluation conference. Nonetheless, because of the complexity of realizing significant change within a traditional curriculum, it is unwise to expect an early, rapid or extensive adoption of all of the methods used and FOM/SCU. Rather one should look for gradual, incremental change to achieve a long lasting impact on Egyptian medical education

The nine other medical schools in Egypt are well aware of the experiment in medical education being carried out at Suez Canal University. And FOM/SCU has been effective in communicating to others about the program. The Evaluation Conferences and last March's conference on general practice have been occasions with wide Egyptian participation and interest.

The team concluded that the other Egyptian medical schools can't adopt fully the various educational methods used in FOM/SCU, there are areas where one can expect FOM/SCU to have an important impact on medical education in Egypt.

Community-oriented, community-based curricula is an example of a new innovative approach to medical education intended to produce doctors better able to serve the community and solve health problems of individuals, families or the entire community. The older Egyptian medical schools which have a subject-oriented curricula are becoming increasingly aware of community-based education and they have established departments of community medicine. In some schools, field teaching and field training of students are practiced, as in Assiut and Mansoura. These schools, as well as the others, can gain a lot from pooling their experience with that of FOM/SCU.

Other elements of the FOM/SCU program--action learning, problem solving and integrated teaching--can be adopted to a certain degree in other Egyptian medical schools. These schools are missing the most important factor for the success of this methodology in medical education; i.e., a small number of students and the presence of full-time faculty members actively involved in teaching of the students.

The evaluation procedures used in FOM/SCU (i.e., self-assessment, peer evaluation, end of block evaluation, end of year evaluation, the feedback process, etc.) cannot be adopted at the present time by the other large medical schools. These methods of evaluation, if conducted well, need time and effort on the part of faculty members, especially the full-timers.

In addition, there is a leading role for FOM/SCU in giving guidance for the planning of two possible new medical schools which will be opened after some time, namely, Minya and Mounofyia medical schools. They can start with the same or similar objectives as FOM/SCU and make use of the extensive experience developed in the establishment of FOM/SCU. It is always easier to start something new than to change something old.

A medical education center established in FOM/SCU will serve a very useful purpose for training junior faculty members from FOM/SCU and other medical schools. This will be an effective way to transfer educational innovations to other schools.

External examiners to FOM/SCU from other medical schools to examine the final year students will help in evaluation. They will be in a position to judge the degree of success of this program in producing good doctors able to solve community problems.

It is not too early to look at the areas of greatest potential impact of the FOM/SCU program on other medical schools. There is evidence of some impact already and the possibilities for future impact are presented in the observations that follow.

1. FOM/SCU has an opportunity to become a leader in linking the health needs of the Egyptian community (urban and rural) with medical education. Emphasis on the study of the health status, frequency and distribution of disease patterns, demography and the social and economic aspects of health could provide a model for other medical schools which may revise their curricula and refashion them to become more relevant to the needs of their communities. Assiut University School of Medicine is working in this line but in a different way.

2. One of the negative aspects of the traditional curriculum in the Egyptian medical schools is the great dependency of the student in gaining his knowledge on lectures and notes written by his teachers. He becomes a passive learner and learns only what he is given. In active learning, which is a basic feature of the FOM/SCU program, the student has to search for knowledge by his own effort and this creates a sense and attitude of independence (or self-dependence), critical thinking, and self-reliance. The old schools can change their educational technology by adopting this mechanism to a great extent. This is very important for the development of the scientific personality of the young doctors.

3. Medicine is a problem-solving profession. The students of FOM/SCU will be more capable in dealing with patients' health problems in actual life than a graduate from the traditional school who will be forced to develop this capacity on his own gradually. There is now an attempt in some of the older Egyptian medical schools to introduce this type of educational technology in their teaching both to the undergraduate and postgraduate students.

4. Knowledge of the health problems of the community will help refashion the research policy and plans in medical schools to be more relevant and realistic. A useful and constructive research that focuses on solving problems of the community will have a beneficial effect on the health services delivery system.

5. The close cooperation between the FOM/SCU and the Ministry of Health is the best example of how to integrate health services with medical education. The traditional schools in Egypt are in great need of this in order to make their curricula relevant and to have additional facilities for training their students and graduates.

6. The methods of evaluation of the students used in FOM/SCU (self-assessment, peer evaluation, end of block/end of year evaluation) are consistent with the process of continuous evaluation and feedback. They are

more solid and reliable than the single end of year examinations in the traditional schools. There may be opportunities to adopt these various types of evaluation methods in the other medical schools.

7. The group practice experience in FOM/SCU may prove to be a demonstration which can be copied in the other schools and will help in solving similar problems prevalent now other medical schools. The experience should be evaluated from this perspective.

The FOM/SCU should continue making its program known to the rest of the medical schools in Egypt, the Middle East, and the world. The school has already developed worldwide connections with other similar schools (through the WHO sponsored network of community-oriented, problem-based medical schools). Locally the school needs to be better known among its sister schools and the rest of the medical profession.

The FOM/SCU should continue to develop its role as a center for innovation and excellence in medical education providing opportunities for training for junior faculty members from FOM/SCU and from other medical schools in Egypt. For the impact of FOM/SCU on the other medical schools to be noticed and effective, more information about the activities of FOM/SCU is needed and a system of closer communication with the other schools should be established. The evaluation conferences are an important aspect of communicating FOM/SCU's achievements. However, there should be a process of two-way communication so that FOM/SCU does not isolate itself from the prevalent system of medical education in Egypt. The school should try to make itself acceptable and an integral part of the Egyptian medical education community.

Local workshops, seminars or small conferences on topics of mutual interest, conducted in Ismailia or elsewhere would be beneficial. Groups of interested and influential medical educators from all the medical schools in Egypt and FOM/SCU can meet and interchange views.

FOM/SCU is currently using some of the senior faculty from other schools as teachers, supervisors of research, and subject matter experts. These faculty members will be a great help in transferring many of the activities of the FOM/SCU to the other schools. Additional exchanges of students as well as teaching faculty will enable the students and faculty members to see and observe what is going inside the school. This will provide strong stimulus for adopting what they will believe to be useful and relevant in their original schools.

Some publications about the objectives and goals of the school should be done. Also, there is a lot of excellent educational material prepared by the faculty of the School of Medicine which could be published in the medical journals in Egypt and abroad. The research projects done by candidates of the master degree in general practice are of great importance to other medical schools and authorities of the MOH and should be made available to them.

It will take time and effort for the impact of FOM/SCU on the other medical schools to become evident. It is not fair to judge it prematurely. The graduates of the school will be the best agents to implement this impact in the future.

ANNEX 1

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK

Project Title: Medical Education and Health Services
for the Suez Canal Area - Phase II

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Program Sector Goal: The broader objective to which this project contributes:</p> <p>To improve the quality of life by making basic health services, particularly those related to primary care, including MCH, nutrition and family planning, available and accessible to the majority of the population of the Suez Area at an affordable cost.</p>	<p>Measures of final achievement:</p> <ol style="list-style-type: none"> 1. The increase in proportion of the population with access to the appropriate primary care services. 2. The change in the relevance of health programs to meet regional health problems. 3. The increased efficiency of utilization of all health resources. 	<ol style="list-style-type: none"> 1. Infant and maternal mortality statistics; school and industrial attendance records. 2. Community health nutrition and population surveys. 3. WHO and IDC communicable disease statistic reports. 4. WHO Demographic and Statistics Yearbook. 5. Special surveys and reports. 	<p>Assumptions for achieving goal targets:</p> <ol style="list-style-type: none"> 1. Local and national Government interested in improving the health status of the population. 2. Assistance in the health sector will be acceptable and will improve health status. 3. That the efficient utilization of trained manpower is a priority.

PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK

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GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
Project Purpose:		Project Purpose:	Conditions that will indicate purposes have been achieved:			
<p>a. Same as logical framework</p> <p>b. Assist in the development of a new curriculum and a new mode of teaching physicians and other health-related personnel to plan, manage and provide preventive and community based primary health services.</p>	<p>a. Same as logical framework</p> <p>b. Same basically as logical framework, but worded differently.</p>	<p>a. Integration of medical education and health services.</p> <p>b. Education and training of primary care physicians as direct providers and health team managers to work effectively within resource constraints.</p>	<p>a. Clinical training emphasizing primary health care is ongoing in support of SCU/FOM undergraduate and postgraduate curriculum at MOH clinical training sites.</p> <p>b. First three years of students have been accepted and trained according to curriculum, and last three years of curriculum developed in detailed outline.</p>	<p>a. Primary care clinical training is occurring in MOH urban and rural health centers and hospitals.</p> <p>b. First three years of students have entered and two years of training has been completed according to curriculum. Design of last three years of curriculum begun.</p>	<p>a. Continue and strengthen clinical training in community sites.</p> <p>b. Continue curriculum development.</p>	<p>a. Cooperation and collaboration between SCU/FOM and MOH needs improvement. (See Section IV.)</p> <p>b. See Output No. 3.</p>

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
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Project Title: Medical Education and Health Services
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GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs:	Magnitude of outputs:			
1. <u>Strengthening Management</u>	1. <u>Strengthening Management</u> 1.1 Detailed written management plan for SCU/FOM, to include financial management and an organizational design. 1.2 A comprehensive analysis of incentive/compensation issues facing the project. This analysis will lead to the development of a comprehensive plan to provide resolutions for the results of the incentive/compensation analysis which will include, as appropriate: a) recipients b) rate schedules	1. <u>Strengthening Management</u> 1.1 Detailed management plan for the SCU/FOM. 1.2 Feasibility study of possible incentive systems and report on implementation.	One written organizational design; one management plan. One feasibility study; one implementation report.	Separate management plan for school not done. Detailed plans are incorporated into the semi-annual implementation plans. (BU/SCU) Analysis of incentive issues done to meet conditions precedent.	Plan for school to be completed. Provide structure for resolutions, including phase-out.	Semi-annual implementation plans serve as vehicle for project management; but SCU/FOM management issues are a priority for remaining LOP.

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

Project Title: Medical Education and Health Services
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GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs:	Magnitude of outputs:			
	c) schedules for phase-out of U.S. Govt. funds within life of project.					
	<u>1.3</u> Action plan for major activities (five per year).	<u>1.3</u> Action plan for major activities.	At least five action plans per year of major activities of Phase II.	Incorporated into semi-annual plan at present time. Some action plans completed in major activities, such as the Group Practice and microbiology laboratory.	Continue and complete action plans for FOM/SCU.	The plans depend on FOM staff who have not been available to work on them.
	<u>1.4</u> Training in management/administration of medical education.	<u>1.4</u> Training in management/administration of medical education.	At least two workshops for training administrative staff in Egypt; medium- and long-term training for four SCU/FOM managers.	One workshop developed and ready. One senior faculty member completed short-term training at BU. One seminar on group practice management completed. Educational management has been done in relation to developing the curriculum.	Continue and complete.	Difficulty in scheduling workshop due to lack of faculty time. Business/Admin. training has been done for about 15 support staff.

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
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Project Title: Medical Education and Health Services
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GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs: 1.5 Decreasing level of project subsidy to SCU/FOM.	Magnitude of outputs: Zero subsidy by year 3-1/2 in all critical areas.	Planning in process.	Complete process.	
2. Action Planning and Program Review which includes program evaluation.	2. Action Planning and Program Review, APPR 2.1 Develop SCU/FOM capability to undertake action planning and program review of projects.	2. Action Planning and Program Review, APPR 2.1 Staff capability to undertake action planning and program review of projects.	One operational staff for APPR within the SCU/FOM. Two staff trained at Master's level. Other staff hired and functioning.	A separate, identifiable unit/staff is not present, but some faculty have assumed responsibility for planning and program review. There is a Faculty Committee of Evaluation, Planning and Follow-Up.	Develop staff capabilities further.	Heavy emphasis on program evaluation.

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Project Title: Medical Education and Health Services
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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs:	Magnitude of outputs:			
	2.2 Projects in Area-Wide Planning: Provider Survey.	2.2 Projects in Area-Wide Planning: Provider Survey.	One survey by end of Year 1.	Survey not done.	Survey will be done, but as part of health services.	A committee to investigate health care services may be formed.
	2.3 Data gathering capability. One statistical report beginning Year 3.	2.3 --		Completed in evaluation exercise of FOM/SCU.		
	2.4 Projects in Program Review (Evaluation): Same as L.P.	2.4 Projects in Program Review (Evaluation): Evaluation design including: faculty, students, GP residents, MOH sites and consumers. Evaluations.	Design completed by Year 1-1/2. By Year 2-1/2, two of six areas evaluated. By Year 3-1/2, four remaining areas evaluated.	Completed in Group Practice, educational development and facilities. Evaluation process is well underway. Skills developed with faculty in evaluation through C.E.D. consultation.	Complete designs and evaluation.	The six areas refer to the six major project activities listed on p. 2 of Cooperative Agreement, Attachment I, Phase II Program Description. This output needs clarification.

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

Project Title: Medical Education and Health Services
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GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs:	Magnitude of outputs:			
<u>3. Educational Development</u>	<u>3. Undergraduate Curriculum</u>	<u>3. Undergraduate Curriculum</u>				
<u>3.1 Undergraduate curriculum development, including library and educational media.</u>	<u>3.1 Students in training. Same as L.F.</u>	<u>3.1 Students in training.</u>	50-100 students per class taught per year.	48 and 67 students in first two classes respectively. Class of 80 students entered Oct. 1983.	50-100 students in each class.	On schedule. Small class size re-emphasized by evaluation.
<u>3.2 Graduate training programs in general practice/family practice/primary care.</u>	<u>3.2 Curriculum consortium functioning.</u>	<u>3.2 Curriculum consortium functioning.</u>	Annual meetings on curriculum development.	Annual meetings held.	Annual meetings continued.	On schedule.
<u>3.3 Continue medical education.</u>	<u>3.3 Curriculum developed. Same as L.F.</u>	<u>3.3 Curriculum developed.</u>	Curriculum for Years 1-4 developed; detailed outline for Years 5-6 completed.	Years 1-3 done; Year 4 in process; Years 5 and 6 outlined.	Curriculum developed.	On schedule.
<u>3.4 Training for infectious disease and epidemiology.</u>	<u>3.4 Media Center developed.</u>	<u>3.4 Media Center.</u>	One Media Center.	Media Center developed and staffed.	Media Center functioning with a long-term management plan and budget.	Management plans and budgeting needed as next focus. (Scheduled for late fall.)

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
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Project Title: Medical Education and Health Services
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GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs:	Magnitude of outputs:			
		Participant training.	Sufficient seminars/workshops and short courses to achieve the above outputs.	Many participants trained. (List in E.U. office files.) (See Annex ____)	Plan and continue training as needed to achieve outputs.	Continued participant training is needed.
		Medical Library.	One Medical Library.	Library open and functioning.	Library functioning and supported by SCU/FOM.	Needs a librarian, management plan, and budget.
3.5 Junior Faculty Research Fund				Jr. Faculty Research Fund established.	Jr. Faculty Research Fund functioning.	No funds dispersed yet. Draft criteria developed.
4. Graduate training programs in general practice/family practice/primary care.	4. Postgraduate Program in Family Practice and General Practice.	4. Postgraduate Program in Family Practice and General Practice.				

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
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Project Title: Medical Education and Health Services
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GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs:	Magnitude of outputs:			
	4.1 Adequate clinical supervision. Same as L.F.	4.1 Adequate clinical supervision for postgraduate training.	Two person years supervision provided in first three years.	One person year supervision done. Second person year not provided yet.	Remainder of supervision provided.	Will need planned additional supervision while staff capabilities are solidified.
	4.2 SCU/FOM faculty and MOH staff trained to teach postgraduate program in general practice.	4.2 SCU/FOM faculty and MOH staff trained to teach postgraduate program in general practice.	Two faculty and two MOH staff complete short courses at Liverpool.	FOM faculty and MOH staff not trained.	Complete training.	Liverpool no longer relevant (for training). Needs discussion to select appropriate training site.
5. <u>Continuing Medical Education</u>	5. <u>Continuing Medical Education</u> Same as L.F.	5. <u>Continuing Medical Education</u> Postgraduate medical education ongoing.	Sixteen faculty and twelve GP residents and/or clinical directors trained.	In progress.	Complete C.M.E.	

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

Project Title: Medical Education and Health Services
for the Suez Canal Area - Phase II

GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs:	Magnitude of outputs:			
6. Training for infectious disease and epidemiology	6. <u>Infectious Disease/Clinical Microbiology</u> Same as L.F. Senior staff of center trained.	6. <u>Infectious Disease/Clinical Microbiology</u> Infectious Disease and Epidemiology Center. Senior staff of Center trained.	One Center building completed and Center staffed. U.S. component of channel system training completed for two M.D. candidates. Two master's completed in microbiology and infectious disease epidemiology.	Center incorporated into SCU/FCM clinical microbiology laboratory. Medical Director trained and working. Laboratory technicians trained "on the job". Training is completed for one candidate through Peace Fellowship.	Complete training. Complete training.	Microbiology lab is operational and excellent. Epidemiology needs greater emphasis. (See Section III in evaluation report.)

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

Project Title: Medical Education and Health Services
for the Suez Canal Area - Phase II

GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
7. <u>Health Services Improvement</u>	7. <u>Health Services Improvement</u> 7.1 Improved health services at clinical training sites. Same as L.P.	Outputs: 7. <u>Health Services Improvement</u> 7.1 Improved health services at clinical training sites.	Magnitude of outputs: Improvement in services sufficient to provide relevant and affordable primary health care clinical teaching experience.	No analysis has been done. Renovations have occurred in health centers to accommodate students and tutors for teaching. On-site inspection done at clinical training sites.	Complete procedures for measurement of improvement of health services at clinical training sites. Provide training.	Base-line data for analyzing content and quality of services is lacking. If planning for measuring improvement cannot be done immediately, this output should be changed or amended. The indicators may not be adequate to obtain desired output.
	7.2 Training support to improve primary health care services.	7.2 Training supporting improved primary health care services.	One mobile seminar in primary care; at least two workshops in primary care.	Seminar and workshops not completed.		

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

Project Title: Medical Education and Health Services
for the Suez Canal Area - Phase II

GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
		Outputs:	Magnitude of outputs:			
	7.3 Improved basic nursing skills.	7.3 Improved basic nursing skills.	At least 12 nurses have completed in-service training on-site with document improvement in basic skill.	In-service training not completed.	Provide training.	The indicators may not be adequate to obtain desired output. (See Section IV and recommendations.)
8. <u>Group Practice Development</u>	8. <u>Primary Care Group Practice</u> Same as L.F.	8. <u>Primary Care Group Practice</u> Ismaillia Group Practice operating and self-sufficient.	One Group Practice operating at better than break-even by end of Year 3 or sooner.	Group Practice renovated, equipped and operating. Break-even status not attained at present.	Self-supporting Group Practice	Will need continued monitoring.
9. <u>Facilities Development</u>	9. <u>Facilities Development</u>	9. <u>Facilities Development</u>				
1) Facility development: Building 29	9.1 Same as L.F. -- as requested by GOE.	9.1 Architectural programs and preliminary design of FOM/	Designs ready for at least four rural health units, and	Some plans and preliminary designs are in process.	Complete architectural programs and designs.	FRA funds are to be transferred into the Coopera-

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

Project Title: Medical Education and Health Services
for the Suez Canal Area - Phase II

GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
(cont.)		Outputs:	Magnitude of outputs:			
amelioration, an infectious disease and epidemiology center, clinical training site improvements, faculty housing, Ismailia General Hospital out-patient department (studies only).	Detailed design Ismailia General Hospital Out-patient same as L.F.	MCH facilities designated for renovation and construction (and funded through FMA). Staff housing purchased (FRA). Detailed design Ismailia General Hospital Out-patient Department.	one infectious disease and epidemiology center. Two apartment blocks. Architectural plans, equipment list, cost estimate.	Renovation of Building 29 classrooms. Two apartment blocks purchased and occupied. "On hold".		tive Agreement. A construction engineer has been hired to oversee this area. Other developments regarding the building of a new hospital in Ismailia have occurred which may preclude renovation of Ismailia General Hospital.
2) Equipment purchase: SCU/FOM administration and curriculum, infectious disease laboratory.					May not be renovated.	

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

Project Title: Medical Education and Health Services
for the Suez Canal Area - Phase II

GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS	PRESENT STATUS	PLANNED EOP STATUS	COMMENTS
(cont.)		Outputs:	Magnitude of outputs:			
10. <u>Equipment Maintenance</u>	10. --	10. <u>Equipment Maintenance</u> Equipment repair and maintenance center functioning.	One equipment repair and maintenance center, staffed with trained technical personnel by Year 3.	Four people were trained in basic equipment repair and maintenance by Abbassia Group (Greater Glasgow Health Board). Three are working in the school.	Continue training and establish center on firm basis. Recruitment of a supervisor.	There have been difficulties establishing a working unit. New proposal being submitted to Dean by Abbassia Group.

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PROJECT DESIGN SUMMARY: LOGICAL FRAMEWORK
(Continued)

Project Title: Medical Education and Health Services
for the Suez Canal Area - Phase II

GRANT AGREEMENT	COOPERATIVE AGREEMENT	NARRATIVE SUMMARY PROJECT PAPER	OBJECTIVELY VERIFIABLE INDICATORS
See Budget	See Budget	<p>Inputs:</p> <ol style="list-style-type: none"> Technical expertise: <ol style="list-style-type: none"> Primary care and nursing Curriculum development Health planning & management Public health Facility design Evaluation Faculty of Medicine & MOH staff. Selected support & construction materials. Project support in Boston & Egypt. 	<p>Magnitude of inputs:</p> <p>See below.</p>

AID	(\$000)
1. Technical Assistance	\$1,635
2. Training	681
3. Equipment	410
4. Other Direct Costs	1,039
5. Overhead	1,358
6. Facilities and Renovations	1,252
7. Evaluations	50
TOTAL:	\$7,800

OBJECTIVELY VERIFIABLE INDICATORS	SCU	MOH
<u>GOE</u>	(LE 000)	
1. Personnel Salaries	1,368	1,889
2. Certain Construction Costs	1,000	--
3. Renovations	500	--
4. Land Costs	1,000	1,228
5. Building	4,000	1,668
6. Operating Expenses	3,500	684
7. Equipment	4,000	890
8. Vehicles	300	--
TOTAL:	LE 15,668	LE 6,279

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ANNEX 3

Faculty of Medicine
Suez Canal University
Ismailia, Egypt
September 1983

LOCAL CONFERENCE

RECOMMENDATIONS OF SESSIONS DISCUSSING
ADMINISTRATION, ORGANIZATION & EXTERNAL RELATION ISSUES

POST GRADUATE PROGRAM

1. Better use of MOH facilities, and efforts should be directed to establish a new teaching hospital in Ismailia.

SCHOOL COMMITTEES

2. Each committee should have regular meetings and committee affairs and decisions should be enrolled in the Faculty Council who should monitor the activity of these committees. The Dean points out the importance of affirming the decision in the committee before it is approved upon by the School Council.
3. There should be coordination between the activities of the different committees.

EXTERNAL RELATIONS

4. The relations between the school and the Ministry of Health should be developed and given formal shape.
5. Developing and coordinating the administrative relations with the University Central Administration and activating the relation with the Suez Canal Authority.
6. Explaining the school philosophy to other medical schools with exchange of visits with them at the level of both faculty members and students.
7. Those external relations of the school which are already excellent should be promoted further for support of the school program.

GENERAL RECOMMENDATIONS

8. The student number should be kept within limits suitable for the educational system in the school.
9. Responsibilities carried out by school leaderships should be shared by a larger number of faculty members.
10. A system should be planned for incentives given to faculty members.

LOCAL CONFERENCE
EVALUATION

RECOMMENDATIONS OF SESSIONS DISCUSSING THE FACULTY ISSUES

FACULTY ISSUES

1. Establishing a unit for manpower for faculty members.
2. Detailed and thorough evaluation of the center should be done to include:
 - (a) How consistent is the present center with its original objective as far as the time spent by the faculty and quality of participating personnel.
 - (b) Study the administrative weaknesses and the impediment.
 - (c) Study how to involve the colleagues who did not get the chance to participate.
 - (d) How can the center be best used for improving scientific and financial conditions of the faculty.

POSTGRADUATE PROGRAM

3. Stop registration for the whole year of postgraduate students for both faculty members and other graduates, both in academic and clinical branches, except for the general practice degree.
4. Each department should have a defined postgraduate educational program before starting registration under the supervision of the postgraduate committee of the school.
5. More involvement of the consultant from the other Egyptian Universities in supervising postgraduate training and in contributing to research programs within the school system.

RESEARCH WORK

6. There should be a general plan for research work for the whole school within the frame of the general school objectives and system. This plan should be ready and approved by October for every department to participate.
7. There should be a training program for research methodology for the faculty members.

EDUCATIONAL ASPECTS

8. Adopting the problem solving approach for postgraduate studies.

POSTGRADUATE STUDIES AND RESEARCH

9. Identifying service programs by faculty members and building up a teaching hospital in Ismailia. Faculty members should be given adequate living facilities as well as adequate scientific and research opportunities.
10. Devising structured, integrated, and binding programs for upgrading postgraduate studies and research.
11. Making available a sufficient number of senior staff for supervising postgraduate studies and research.

GENERAL RECOMMENDATIONS

12. A system should be planned for incentives given to faculty members.
13. Evaluation of activities and performance of faculty members in the light of criteria cited in the "Dean's Paper".
14. The Medical Education Committee of the Supreme Council for Universities is recommended to establish a sub-committee for evaluating medical education research.
15. Emphasizing the importance of enforcing the second item of Article 69 of the Law for Universities, concerning the promotion of staff members who have contributed significantly during the foundation period.
16. An annual scientific meeting is recommended to be held simultaneously with the annual evaluation conference.
17. Issuing a scientific periodical by FOM/SCU in which there will be opportunity for publishing medical education research will be arranged.

ANNEX 4

GENERAL PRACTICE MASTER DEGREE STUDENTS
FACULTY OF MEDICINE, SUEZ CANAL UNIVERSITY

Class of 1985 (First year students)

1. Raouf Hamed Osman
2. Mahmoud Hassan Said Ahmed
3. Mohamed Hassan El Hawary
4. Ahmed Mohamed Mohamed El-Saeedi
5. Sala Fathy Mohamed Ahmed
6. Yehea Zein El-Abedeem
7. Mourice Henery Botross
8. Zaki Mohamed Zaki
9. Magdi Abd El-Fatah El-Kholy
10. Nesseem Albert Nesseem
11. Mohamed Mohamed Hassan Hamed
12. Elamira Mohamed Youssef Salem
13. Faten Moawad
14. Salwa Mohamed Ali Elsawaf
15. Ibrahim Elsaid Ahmed Elzayat

Class of 1984 (Second year students)

1. Osama Mohamed Eid
2. Helmy Khalil Soliman
3. Nagwa Ibrahim Ahmed
4. Mahmoud Abd El-Moneim Mahmoud
5. Zaki El-Atar Moustafa
6. Ismail Ibrahim Mohamed
7. Samir El-Sayed Hassan
8. Abd El-Wahab Abdalla Hessein
9. Sawsan Mohamed El-Sayed
10. Ali Mohamed Ali El-Ogeizi
11. Ibrahim Ragab Soliman
12. Essam Eldeen Mohamed El-Sayed
13. Mohamed Abd El Khalek Ali
14. Sami Mohamed Halawa
15. Ibrahim Hassan Ali
16. Emad Mohamed Zaki El-Khodeiry.

Class of 1983 (Graduated March 1983)

1. Ahmed Abd el-Hamid Ali
2. Abd El-Sadek Mohamed Farid
3. Youssef Mohamed Ali Eid
4. Eisha Ahmed Ibrahim Fayad
5. Saber Mohamed Ali Nancy
6. Afaf Ibrahim Abou-Zeid
7. Shawki Botros Ghaly
8. Omran Abd-Ellatif Mohamed
9. Saeed Mostafa Mohamed
10. Mohamed Awad Mohamed Osman
11. Youssef Ali Abdalla
12. Saad Mohamed Ali El-Maghreby
13. Mohamed Yehya El-Srudy
14. Mekhail Labib Eissa

Cooperative Agreement: Technical Assistance

ANNEX 5.a

COOPERATIVE AGREEMENT CONSULTANT DAYS BY TOPIC AND INSTITUTION, MARCH 1980 TO JUNE 1982
 PHASE II, INCREMENT I, 12 MONTHS (JULY 1982 - JUNE 1983)

	CURRICULUM			VIABILITY			MOH						
	: Eval.:	: Other:	: Total:	: G.P.:	: Micro:		: Serv.:	: Fclty:	: Dev.:	: Captl:	: Adm.:	: Other:	: Total:
					: biol.:	: Other:							
: BU - HPI	: 4	: 3	: 7	: 78	:	:	:	:	: 14	:	:	: 110	: 209
: BU-CONSULTS	: 0	: 26	: 26	: 6	:	: 29	: 35	:	:	:	: 28	: 14	: 103
: CED	: 134	: 3	: 137	:	:	:	:	:	:	:	:	:	: 137
: McMASTER	: 5	: 18	: 23	:	:	:	:	:	: 7	:	:	:	: 30
: MAASTRICHT	: 5	: 5	: 10	:	:	:	:	:	:	:	:	:	: 10
: SEATTLE	:	:	:	:	: 334	:	: 334	:	:	:	:	:	: 334
: OTHER	: 2	: 2	: 4	:	:	: 5	: 5	: 35	: 7	:	:	: 16	: 67
: TOTAL	: 150	: 57	: 207	: 84	: 334	: 34	: 452	: 56	: 7	: 138	: 30	: 890	

PHASE I, 27 MONTHS (MARCH 1980 - JUNE 1982)

	CURRICULUM			VIABILITY			MOH						
	: Eval.:	: Other:	: Total:	: G.P.:	: Micro:		: Serv.:	: Fclty:	: Dev.:	: Captl:	: Adm.:	: Other:	: Total:
					: biol.:	: Other:							
: BU - HPI	:	:	: 3	:	:	:	:	:	:	:	: 596	:	: 599
: BU-CONSULTS	:	:	: 67	: 67	:	: 40	: 107	:	: 12	:	:	: 20	: 206
: CED	:	:	: 33	:	:	:	:	:	:	:	:	:	: 33
: McMASTER	:	:	: 56	:	:	:	:	:	:	:	:	:	: 56
: MAASTRICHT	:	:	: 84	:	:	:	:	:	:	:	:	:	: 84
: SEATTLE	:	:	:	:	: 24	:	: 24	:	:	:	:	:	: 24
: OTHER	:	:	: 71	: 88	:	:	: 88	: 86	: 20	:	:	: 47	: 312
: TOTAL	:	:	: 314	: 155	: 24	: 40	: 219	: 86	: 32	: 596	: 67	: 1314	

Cooperative Agreement: Technical Assistance
ANNEX 5.b

List of Regular Consultants to the BU/SCU Project in Phase II

9/83

<u>NAME</u>	<u>AFFILIATION</u>	<u>PROJECT ACTIVITY</u>
<u>Boston University</u>		
Samir Ahmed	Surgeon, Malden Hospital	CME - Surgery
Kenneth Bloem	Asst. Academic Vice President for Health Affairs	Group Practice Development
Jerry Glickman	Director, Ed. Media, BUMC	AV Center Development
Fred Delorey	Sr. Medical Photographer	" " "
Terry Field	Instructional Designer	" " "
Herbert Kayne	Professor of Biostatistics	Research Methods
John Sandson	Dean, School of Medicine	Policy and Planning
Raymond Koff	Professor of Medicine	Research Methods
<u>Center for Educational Development, University of Illinois/Chicago</u>		
Michael Seefeldt	Asst. Prof. of Med. Education	Evaluation
Christine McGuire	Professor of Medical Education	"
Betty Risley	Instructor, Medical Education	"
<u>McMaster University, Faculty of Health Sciences (Hamilton, Ontario, Canada)</u>		
Vic Neufeld	Chairman, MD Program	Problem-based Curriculum
Ron McAuley	Professor of Family Medicine	" " "
Mahmoud M. Ali	Prof. of Pathology & Medicine	" " "
<u>University of Limburg (Maastricht, the Netherlands)</u>		
J. M. Greep	Dean, Faculty of Medicine	Problem-based Curriculum
Peter A. Bouhuijs	Dean of Education	" " "
Henk G. Schmidt	Educational Psychologist	" " "
<u>University of Washington, Seattle and Seattle V.A. Hospital</u>		
James J. Florde	Prof. of Medicine and Chief, Infectious Diseases Section and Microbiology Section of Clinical Labs (V.A. Hosp.)	Infectious Disease/ Clinical Microbiology
Jo Ann Gates	Supervisor, Microbiology Lab	" "
Sam Eng	Clinical Technologist	" "
Fred Tenover	Chief Fellow, Department of Laboratory Medicine	" "
Larry Carlson	Clinical Microbiologist	" "
LaDonna Carlson	Microbiologist	" "
<u>West of Scotland and Health Boards--Dept. of Clinical Physics and Bio-Engineering (sub-grant)</u>		
David Porter	Chief Advisor to DME Abbassia	Equipment Maintenance
J.M.A. Lenihan	Glasgow-based Proj. Director	" "

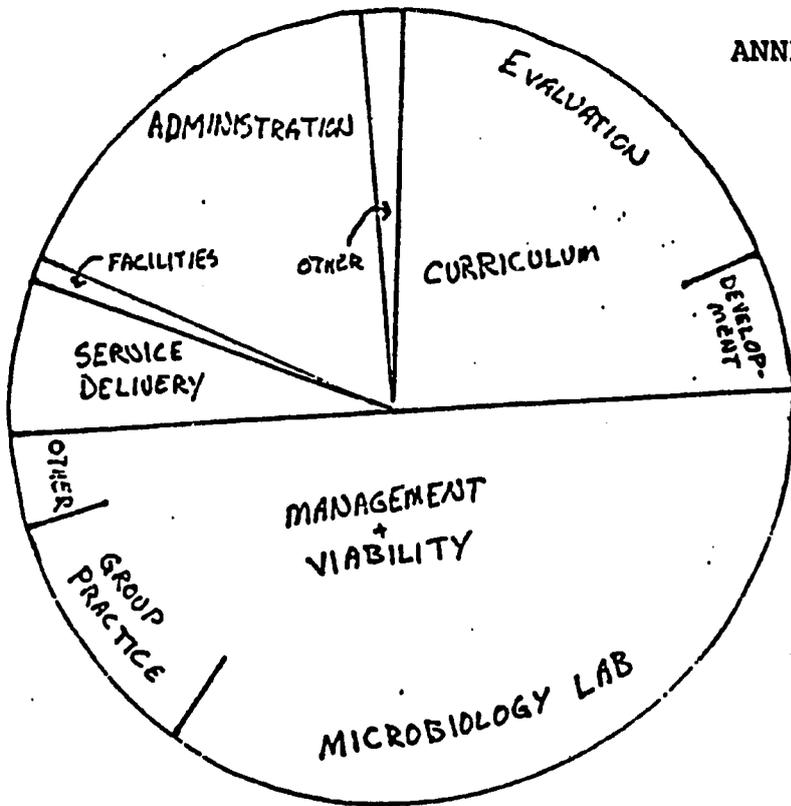
<u>NAME</u>	<u>AFFILIATION</u>	<u>PROJECT ACTIVITY</u>
William A. Dann Jeanette Morton	W. A. Dann & Associates W. A. Dann & Associates	Management Management, Group Practice Development
M. Y. Heshmat	Professor of Community Health and Family Medicine, Howard University	General Practice Graduate Program
Julius Richmond	Professor of Health Policy, Harvard University	Policy and Planning
Susan C. Shaw	Consultant in Program Plan- ning and Facility Design	Facility Design
Eugene Farley	Chairman, Department of Family Medicine and Prac- tice, Univ. of Wisconsin	Family Practice
Scott Obenshain	Asst. Dean, Undergraduate Med- ical Education, University of New Mexico	Problem-based Curriculum, Family Practice
Nefissa Abdel Rahman	Deputy Librarian, American University/Cairo	Library Development
Professors Dowidar, Rakhawy, El-Batawy, Kamel, Rifaat, Abdel-Kader, El-Bagoury, and Ghaleb from Cairo, Ain-Shams and Al-Azhar Universities - Consultants in the Basic Sciences		
English Language Teachers	American University/Cairo	English Language Training

Consultants to BU/SCU Project--One-time or occasional visistors who may have a future role:

<u>NAME</u>	<u>AFFILIATION</u>	<u>PROJECT ACTIVITY</u>
N.R.E. Fendall	Prof. of Tropical Medicine and Public Health (retired), Liverpool School of Tropical Medicine	Policy and Planning, Health Manpower
Steven C. Joseph	Pediatrician, UNICEF, NY	Medical Education, Policy and Planning, Public Health
Moshen Ziai	Pediatrician	Medical Education, Policy and Planning
Dr. Sabri	Regional Director, Public Health, NW Region, Tunisia	Public Health and Community Medicine
Peter Higgins	Professor, Royal College of Gen. Practitioners, London	General Practice
Rodney Turner	Professor, Royal College	General Practice

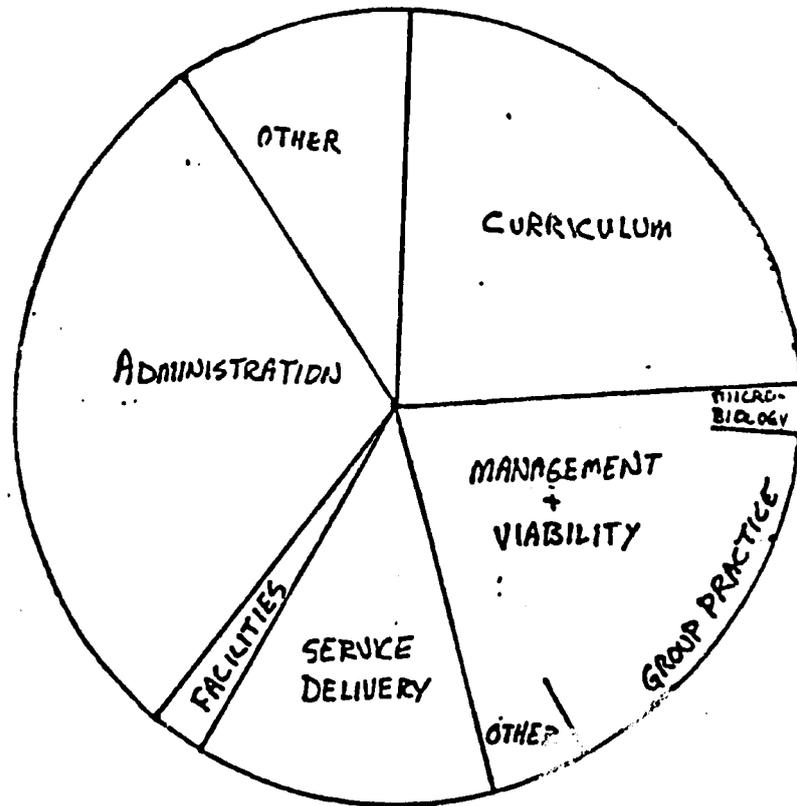
Prepared by Boston University/Health Policy Institute

COOPERATIVE AGREEMENT
TECHNICAL ASSISTANCE:
DISTRIBUTION GRAPH
(Including Administration)



PHASE II - INCREMENT I
TECHNICAL ASSISTANCE
JULY 1982 - JUNE 1983
890 DAYS

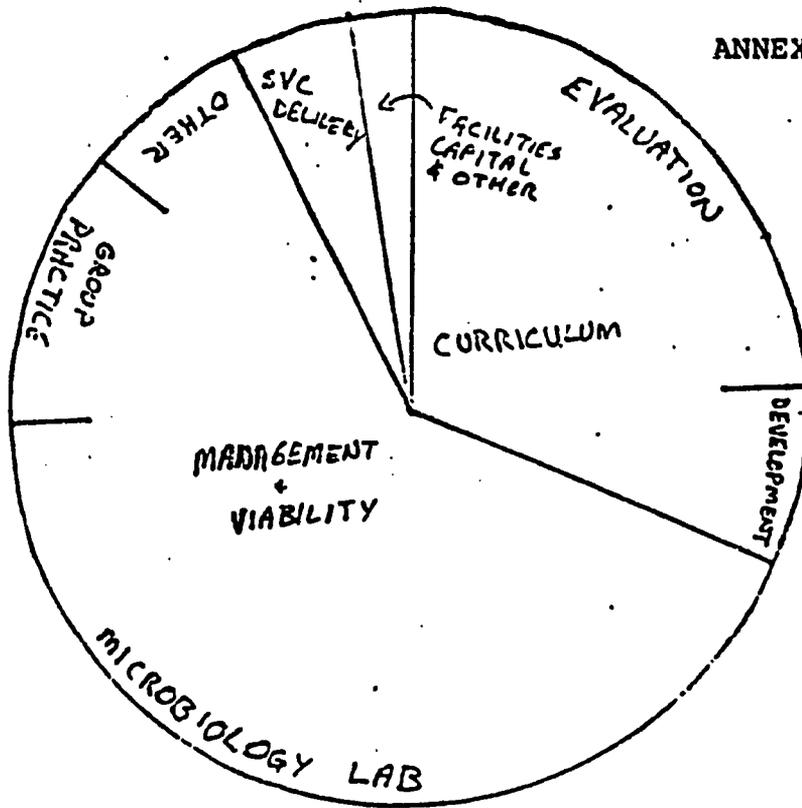
PHASE I
TECHNICAL ASSISTANCE
MARCH 1980 - JUNE 1982
1314 DAYS



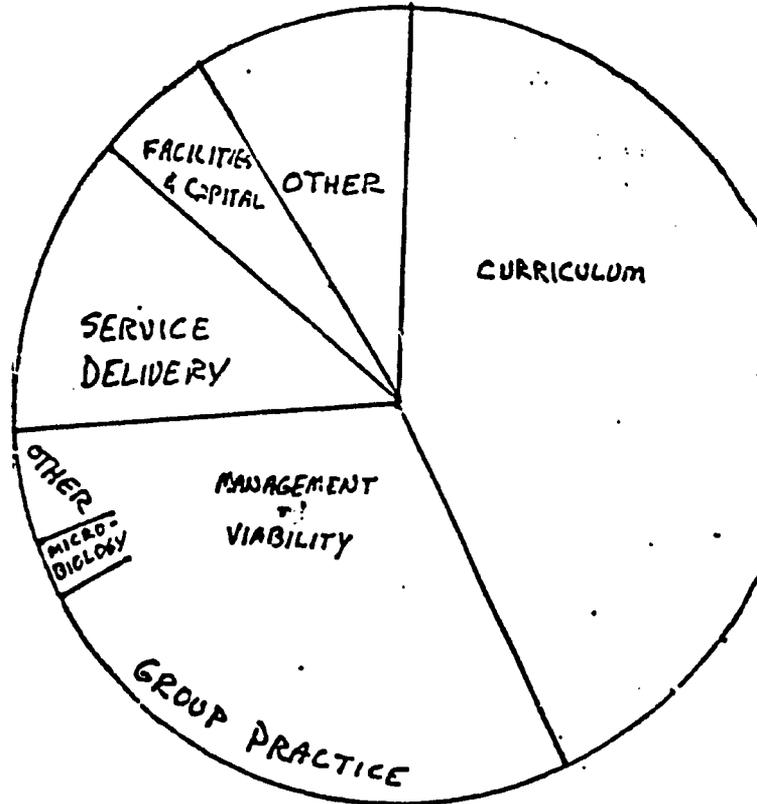
ANNEX 5 d

COOPERATIVE AGREEMENT
 TECHNICAL ASSISTANCE:
 DISTRIBUTION GRAPH
 (Excluding Administration)

PHASE II - INCREMENT I
 TECHNICAL ASSISTANCE
 EXCLUDING ADMINISTRATION
 JULY 1982 - JUNE 1983
 752 DAYS



PHASE I
 TECHNICAL ASSISTANCE
 EXCLUDING ADMINISTRATION
 MARCH 1980 - JUNE 1982
 718 DAYS



Cooperative Agreement: Training
ANNEX 6

BU/SCU PROJECT

Phase II

PARTICIPANT TRAINING - JULY 1, 1982 - SEPTEMBER 30, 1983
(in numbers of weeks)

Participants	Boston		McMaster		Maastricht		CED	
	CME	Other	Fellowships	Workshops	Tutor	Other	Training	Other
Ibrahim Rakha	4				1			
Ossama El Okda	12			1				
Mohamed Saleh	12			1				
Assam			4					
Mostafa			4					
El Deib		4						
Azhar		4						
Feriha		4						
Fathalla Hassan		3						
Hoda Wadie	4							
Selma Ghandour	4						1	
Alaa Zeitoun	4			1				
Hashem	12	2		1				
Adel Sabry					1-2			
Youssef					1-2			
Nabil El Khodary							4	2
Ossama El Okda							4	
Amr Abbaas	4		4				1-2	
Fatma			4				1-2	
Tymoor Khattab	4					1-2		2
Mamdouh El Mezein	12							1
Ahmed Atef						2		
Fathy Makladi	4	2				2		
Hossam Handy						2		
Sayad El Zayat	12	2						
Adel Nessim	4	2						
Abdel Mohsen		2						
Atef El Ahras		2					3	
TOTAL	92	28	16	4	4	8	15	5
JR. FACULTY								
FROM BOSTON ---								
Salah El Driny				1				
Nader Morad				1				
Sherif Helmy				1				
Nadia Reda				1				
Aly El Haq				1				
TOTAL				5				

TOTAL OF 167 WEEKS

NOTE:

- o This list does not include 52 weeks of training for Dr. Farid in Microbiology (Peace Fellowship), University of Washington.
- o Dr. Khalifa will work in State Lab, Mass., in Laboratory Management - Infectious Disease (Peace Fellowship).

[Prepared by Boston University/Health Policy Institute]

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ANNEX 8

CLIENTELE OF THE GROUP PRACTICE

Average Age: 35

Sex: 47% female
53% male

Residence: 95% from Ismailia
5% from elsewhere

Occupation:	<u>No. of Cases</u>	<u>Percentage</u>
Professional (teacher, engineer, nurse)	3	2.6%
Employees	35	30.0
Drivers	5	4.0
Workers	3	2.6
Self-employed	13	11.0
Housewife	26	23.0
Students	18	16.0
Peasants	4	3.5
Retired	4	3.5
Other	4	3.5
Total:	<u>115</u>	<u>99.7%</u>

Patient characteristics derived from a random sample of 115 patient records for year 1983. Prepared for the evaluation team by Dr. Maged, Assistant Lecturer.

PORT-SAID

- * Port Said General Hospital
- Kuwait
- Kabuiti

80 km.



* Abu Atwa



ISMAILIA

- Sabaa Banat
- Hekr
- Shohada
- * Sheikh Zayed

TO ZAGAZIG

* Abu Suweir



• Sabaa Abar



TO CAIRO

• Sarabium



Abu Sultan Rural Hospital

68 km.

SUEZ

- * Hospital Comple
- Sabah
- Ganaian
- Gabalaet

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- Health Center Sites Used for Training, 1981/82/83

- * Proposed Additional Training Sites



Teaching Annex

SCHEMATIC MAP

TRAINING SITES-FOM/SCU

ANNEX 10

SITE VISITATIONS
PROGRAM EVALUATION TEAM

Wednesday, September 28, 1983

Ismailia Governorate

- 1) Sabaa Banat Urban Health Center
- 2) Sabaa Abar Rural Health Center
- 3) Sheikh Zayed Urban Health Center
- 4) Shohada Urban Health Center
- 5) Ismailia General Hospital

Thursday, September 29, 1983

Port Said Governorate

- 1) Kuwait Urban Health Center
- 2) Kabuti Urban Health Center
- 3) Port Said General Hospital

Saturday, October 1, 1983

Suez Governorate

- 1) Suez Hospital
- 2) Fever (Infectious Disease) Hospital
- 3) Chest Hospital
- 4) Sabah Urban Health Center

Ismailia Governorate

- 1) Abu Atwa Rural Health Center
- 2) Abu Suweir Rural Health Center
- 3) Sarabium Rural Health Center

Sunday, October 2, 1983

Ismailia Governorate

- Police Barracks Building

SITE VISITS - ISMAILIA GOVERNORATE

Sabaa Abar Health Center Rural Ismailia

The Director, Dr. Mohamed Atef, states there are approximately 50 patient visits daily, 20 of which are child visits. The staff consists of 1 physician, 1 dentist and 3 nurses. The area serves a population of about 10,000; the usual outpatient services are provided. The nurses are called to homes for deliveries.

The Director states that having students at the center is time consuming, but he does like to have them. Renovation of the Health Center was done in Phase I and consists of a "teaching building" with an exam room, a small laboratory and a conference/teaching room. A small working library and other teaching materials need to be added. This setting is appropriate for clinical training of students if there are sufficient patients; over time the staff will probably become more adapted to teaching.

Shohada Health Center in Ismailia

The Director, Dr. Mohamed Yehya El-Srugy, is a general practitioner and a 1983 graduate from SCU/FOM. This site is used by graduate students in general practice and by undergraduates. The facility is three years old and offers the full range of outpatient care. It has an attractive design.

The health center has adequate space for accommodating students and the staff supports the clinical training program. This center should continue to be used as a clinical site for students. Library and other teaching aids should be made available.

Sabaa Banat Health Center in Ismailia

The Director, Dr. Sarak, is a general practitioner (M.A.). There are five doctors on the staff. Approximately 100 patients register for care each day. The main activities are for outpatient care; i.e., immunizations, oral rehydration, maternal-child health, minor surgery, family planning, etc.

Students are at the center for training four days a week: two students from the first year class for two days and two from the second year class for two days. The Director of the Health Center and a faculty member from the medical school supervise the students. There is a large room designated as the training room for students.

The clinic is old and somewhat crowded, but suitable for student teaching if experiences are selected and closely supervised. With some renovation, the setting could be made much more attractive. The Director states that the staff like to have students training at the center.

Sheikh Zayed Health Center in Ismailia

The Director, Dr. Mohamed Awad, is a 1983 graduate of the General Practice Program of SCU/FOM. The center opened in May 1983 and offers outpatient services; i.e. MCH, school health, immunizations, nutrition education, family planning, minor surgery, etc. It is a new facility, spacious and well maintained. Dr. Awad is very capable and enthusiastic. His associate, Dr. Majed, has recently returned from England where he trained in general practice.

This site is proposed to be a teaching site for both graduates and undergraduates. A room has been designated for student teaching and a small library and AV material are planned for it.

Average patient visits per month are 2500-3500 (90-132 per day). Family Planning visits from January to August 1983 numbered 4,300. An oral rehydration center is not organized yet, but one nurse has been sent to Cairo to be trained. A family record system is being developed based on a geographical survey of 1,000 families in the area adjacent to the health center. Much thought has gone into this; the staff has developed a high order of sophistication on record development, data gathering, and survey methods.

The Nursing Director, Galela Michael, is very eager to assist in the training program and requests nursing skill and communication training for her staff.

This center has excellent leadership and, therefore, has great potential as a clinical teaching site.

Ismailia General Hospital

This general hospital has 300 beds and has been associated with FOM/SCU for the past two years through the faculty of medicine staff and residents. No medical students are assigned to the hospital yet.

The hospital is very poorly maintained and hygiene is poor. There is evidence of poor administration and lack of essential supplies. In its present condition, it is not a suitable site for clinical training. Extensive renovation, administrative reorganization, and professional staff development would be required in order to meet the requirements for a teaching program.

Abu Atwa, Rural Ismailia

Abu Atwa is a rural health center--kilometers from Ismailia. It serves a population of 40,000 with a patient load estimated between 120-200 per day. The physician, Dr. Mohamed Nassry, is from Ismailia and has worked in rural health units in the governorate for four years. He gives two reasons for the increasing willingness of MDs to serve in the rural areas: the rising number of medical school graduates which makes it difficult to establish oneself in urban areas, and the rising standard of living in Egypt's rural areas.

The health unit is cramped, lacking in particular an adequate MCH Center. The physician complains of a chronic shortage of drugs. Even the amount of contraceptive pills is inadequate. Despite the physician's request for increases, the number of cycles allocated to Abu Atwa, 223 per month, has not changed in the three years he has been there.

The new training center stands next to the health unit. It has been completed and is waiting for final inspection and payment before being turned over to the school. The first students will be trained at this site in 1983-84. The physician is looking forward to working with them and expressed an interest in knowing more about the program of FOM/SCU and what the center's involvement will entail. He was interested also in being invited to seminars or lectures at the facility.

Sarabium, Rural Ismailia

This rural health center serves a rural village of 14,000. There is a staff of 12, including 2 nurses and a midwife who is currently on leave. When we arrived, the doctor, Dr. Atef Abdel Hamid Solyman, had

just returned from governorate offices where he was trying to get additional drugs for the center. Current supplies are nearly exhausted. The center was moderately clean. The doctor reported a patient load of 60 per day.

Dr. Atel was assigned to Serabium last May, so his exposure to students has been limited. He reported that students came on Saturdays and Sundays during the school year. He welcomed them and said that they did not disrupt the clinic. Since upon occasion a tutor did not accompany them, he said he tried to teach them and show them things. He too would welcome an orientation to the program and its aims.

Abu Suweir, Rural Ismailia

Abu Souer Rural Health center sits in a stand of eucalyptus trees in an agricultural village of 25,000. When we arrived, more than 100 patients, many being women with children, sat in the shade waiting for the doctor. The staff is comprised of 1 MD, 4 nurses, 4 dentists, 2 midwives, a registrar, and 6 sanitarians. Like other rural health units, the patients pay 3 pt. (about 4¢) per visit, including the required drugs as available. The training extension stands some 50 feet from the clinic. It has been completed and is awaiting final inspection before being turned over to the faculty. Electricity and water have not yet been connected. The building is virtually identical to the other three training centers.

Police Barracks Building - Ismailia

This building is being considered as a possibility for a university hospital. The building is located about seven kilometers northwest of Ismailia. It was built one year ago as a police barracks but never used. The design is double-cross shape with five floors and a basement. The floors contain large open rooms originally intended to be sleeping areas for police staff.

The initial impression is that the building has potential for conversion to a hospital. Extensive architectural, engineering and cost analyses for renovation potential must be the next step.

SITE VISITS - SUEZ GOVERNORATE

General Comments

The four sites visited in Suez represent four different types of health facilities. The three hospitals (general, chest, and infectious disease) and the urban health center all offer important resources for training medical students. The three hospitals are situated in one location and are within walking distance of one another, resembling a "medical complex". There is ample land available for any needed expansion.

The staff at all of the sites are interested in participating in the FOM/SCU medical education program. They welcome medical students in their facilities for clinical experience. The utilization of these resources will help provide the clinical base needed for Phase II clerkships.

Suez General Hospital

This hospital of approximately 400 beds is the only general hospital serving the nearly 1/2 million people of Suez Governorate. It is located in Suez City which has a population of about 300,000. (These population figures were provided by MOH officials.)

The hospital provides in-patient and out-patient services. The medical staff consists of specialists, residents and house officers. According to Dr. Badr el Dun, a general surgeon and consultant to Dr. Z. Kourra (MOH Director General of Health--Suez), additional medical specialists and house officers are needed to provide adequate health care. A three-year nursing school exists, but there are very few students. Nurses are borrowed from other districts to staff the hospital.

There is a high volume of patients; in 1982 admissions from the out-patient department were 4,283 and admissions from the Emergency department were 15,332. Accidents, trauma and burns are common medical emergencies. The surgery department is very busy with about 15,500 surgical cases in 1982.

One of the most impressive units in the hospital is the small pediatric intensive care room. It contains two working and well-maintained incubators. The unit is staffed with a nurse who received special training in Cairo. It is evident that she manages the unit very well.

The building is old and could use some paint and basic repairs. The design allows for good use of space. Small tutorial classrooms/conference rooms could be arranged for medical students.

Fever Hospital (Infectious Disease) - Suez

Dr. Yousef, Director of the Hospital, reports a 70% occupancy rate of this 120-bed hospital. Diseases treated are varied and include tetanus, meningitis, encephalitis, typhoid, scarlet fever, hepatitis, etc. Two of the most commonly treated diseases are hepatitis and pneumonia.

There are four M.D. specialists on the staff. The "hospital" consists of six small buildings: two each for men and women patients, a reception/outpatient unit, and an administrative building. There is a small laboratory and pharmacy. Most laboratory specimens are sent to the Suez General Hospital laboratory. Dr. Yousef reports the need for an adequate laboratory on the premises. There is also a large morgue that is used for dissections (post-mortems). The hospital compound is large with garden areas between each building. Adequate space for teaching rooms and a small working library could be arranged.

Chest Hospital - Suez

This 140-bed hospital is well maintained and attractive. The occupancy rate is about 60% or approximately 80 in-patients. Diseases, such as tuberculosis, pneumonia, asthma, cancer, emphysema, etc., are treated through in-patient and out-patient services. The hospital also operates a mobile screening unit.

The medical staff includes two specialists and three residents. Chest surgery is not performed; cases are transferred to Cairo.

The hospital is a U-shaped design with large patient wards. There is adequate space for arranging student teaching rooms.

Sabah Health Center - Suez

This three-year old health center is located in a new housing development area in Suez. It serves a population of approximately 50,000 and provides the usual out-patient services. During the past year, medical students have received clinical training in this center.

Daily patient visits average 100 to 150, most of which are mothers and children. The staff includes about 20 doctors (both specialists and general practitioners), 20 nurses (3 are midwives) and 2 dentists. An average of 10 deliveries occur at the center daily; follow-up home visits are made by the midwives.

The building design is spacious. A partial second floor contains rooms for staff on duty. It was suggested that a new section be added to the second floor to provide teaching rooms, a working library and A-V materials for the students.

Address to the Second Annual Program
Evaluation Conference of the Faculty
of Medicine at Suez Canal University
(FOM - SCU)

September 24-26, 1983

Ismailia, Egypt

by Dean ZOHAIR NOOMAN

Distinguished Guests, Friends and Colleagues,

Welcome to the Second Annual Program Evaluation Conference of our School. This year, the Conference has been split into two sections: " Local " and "International". The former was held from 12 to 15 September and was attended by the University, faculty and students. It was a remarkable meeting in which members of the Family shared a deep insight and arrived at a general consensus regarding the relevant issues revealed by the evaluation of our performance during the last year. We expect that this International section of the Evaluation Conference will achieve the following tasks:

- a) To critically assess the evaluation reports to be presented.
- b) To critically assess the recommendations of the Internal Conference.
- c) To advise us on the most appropriate and feasible solutions/decisions to address the most pressing problems revealed by the evaluation and those highlighted in this presentation.

In your evaluation, we expect you to consider the age of this school. By the next month, October 83, FOM-SCU will be:

- Entering the seventh year since the onset of the planning phase in October 1977.
- Entering the fourth year since we started the implementation of the Post-Graduate Masters Program in General Practice.
- Entering the third year since admitting the first undergraduate class.

- How did FOM-SCU fare during the year 82/83?
 - Did we follow the proper direction to achieve our Goals?
 - Did we honestly maintain the basic features of our program?
-

The Institutional Goals of FOM-SCU are:

1. To qualify physicians whose primary objectives will be to provide health care in a combined hospital-community system with major emphasis on primary care.
2. To relate medical education to the needs of the society so that the physicians will be able to diagnose and manage the community health problems.
3. To develop and implement with the Ministry of Public Health and other health care delivery bodies, an integrated system for comprehensive health care delivery and health manpower development in the Suez Area and Sinai.
Such systems consider the limits of the national per capita health expenditure at present and in the foreseeable future. The regional health service facilities will be used as the locus for education and training.
4. To develop and provide for health personnel programs of post-graduate training and continuing education.
5. To develop research programs that address primarily the actual health needs of the community.

The basic features of FOM-SCU program are summarized in table I.

The educational process will be reviewed in subsequent presentations in this meeting. Following is an outline of the curriculum for the sake of this presentation.

The six years curriculum comprises three phases (Fig. 1, a,b,c).

The first Phase (year I) deals generally with normal Man and normal Environment. (Pre-pathogenesis).

The second Phase (years II and III) deals with the bulk of "basic" medical sciences presented mostly as organ-system blocks.

The third Phase (years 4,5, and 6), the Clerkships.

Phases are divided into a series of 5-6 week blocks. The objectives of each phase determine the number, sequence, themes and topics of the contained blocks. Learning within the blocks is centered around problems which represent common and relevant individual or community health problems.

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Highlighting Some Important
Issues and Events

1. The Students' Status:

- * The performance of the students in the First and Second Year of the undergraduate program remains satisfactory, even outstanding.

We have witnessed with great interest the positive role played by the second year students towards their newly admitted first year colleagues. This helped the latter to ease their way into the educational system with a minimum of anxiety and concern. Objective evaluation of various aspects of the student status in FOM-SCU is giving us increasing confidence in both our educational system and our students as well as their compatibility with each other.

An alarming issue however, is our inability to control the number of students enrolled every year into our school.

We are operating under a decision passed by the section of Medical Education of the Supreme Council of the Universities in 1980 which stipulated that as a condition for allowing us to open the school, the student enrollment should be limited to 50 per year for five years, to allow us time to develop the human and physical resources required for our innovative program. Yet our first year class climbed up from 50 in the 1981 to 66 in 1982, and we are faced in October 1983 with 99 students. 44 among the latter, almost 50%, are students derived from those special groups who are exempted from the need to attain top marks in their secondary school certifying examination. Considering the increasingly mounting load we are facing by adding a new class every year, planning for Phase III, developing suitable relationships with the Ministry of Health training facilities and the very nature of our educational program which calls for intensive training of teachers and other personnel, let alone close monitoring and evaluation; considering all these factors, it would be absolutely irresponsible and positively

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destructive on the part of our University and Faculty to accept more than 75 students during the Academic Year starting in October 1, 1983.

Our human and physical resources simply do not permit that.

2. Faculty Issues:

* There is a notable growth in the number and quality of well trained faculty members who are capable of carrying out the various demands of FOM-SCU program. The critical mass needed however for the further development and maintenance of the school is far from being reached .

* The Limited Number of Senior Faculty:

Planning and implementation of Phase III of the curriculum together with the needs of the post-graduate program call for a sizable increase in the number of our senior faculty at the professor to lecturer grades. An open advertisement for all grades of senior faculty in all specialities resulted in only 13 applicants of whom only one lecturer was appointed within a full year. Junior faculty mature slowly and we have a generation gap.

There are many reasons underlying our lack of ability to recruit sufficient numbers of senior faculty, some reasons are real, a few are factitious and reflect narrow short-sighted self interests. We have some remedial proposals.

** The Lack of Qualified Applicants: The Supreme Council of Universities has issued a rule in 1980, by which holders of the Membership of the Royal College of Physicians and equivalent diplomas would be eligible for appointment as assistant lecturers where as previously they were eligible for appointment as senior faculty. There are hundreds of Egyptian colleagues holding those diplomas working abroad who wish to return back and serve their country. Many of them are very well trained and have excellent publications but are being deterred by this rule, being too senior to accept appointment as assistant-lecturers. A Proposal to increase the pool of applicants to our school would be to exempt FOM-SCU from applying the above

rule for one or two years until we have satisfied our tremendous needs.

** The low salaries of full-time Faculty: Apart from Egypt there is hardly any country in the world that depend almost exclusively on part-time Faculty to operate medical schools. This has a devastating effect. To solve this knotty problem, we opened the Group-Practice. In spite of its undoubted success as a practice, it is only modestly effective as a solution of this problem. A proposal that would almost remedy the situation without unduly straining the national budget would be as follows:

a) To substantially augment the salaries of 100% full-time faculty several folds and to restrict the senior posts as professors and department heads to this category.

b) To freeze the salaries of those who opt to work part-time and make it a function of the actual time they devote to their duties as faculty. After all they currently derive at least 90% of their total income from private practice. Promotion to senior posts should be limited or prohibited.

Faculty Promotion and Evaluation of Faculty Performance:

A major source of anxiety among many members of our faculty is the unfair distribution of work load and an equally unfair reward and promotion system. Those among us who care for the system, whose commitment to the school and what it stands for is driving them to work almost day and night in an attempt to satisfy the insatiable needs of the FOM-SCU program and those are the people who are really building the school-cannot help being frustrated by a set of unfair and counter productive faculty evaluation promotion practices. On the other hand those among us who opt to take it the easy way and care for themselves rather than the system, enjoy a lighter load of work and reap the benefit of the porous evaluation practice. Moreover they have ample time to create problems (for the school, not for learning).

The last meeting of the Faculty Council and the subsequent "Local Evaluation Conference" adopted a series of decisions to address these serious faculty concerns:

1. Urgent steps to be taken to ensure that research in medical education would be considered at least as important as other areas of medical and scientific research for the purpose of faculty evaluation for promotion. The University Council, the Section of Medical Education and the Supreme Council of the Universities should be urged to make appropriate decisions.

2. The Faculty Council and the Dean, supported by the University Council and the President, should start immediately enforcing the pertinent articles in Law 42/1972 (the existing University Organisation Law) that deal with the duties and obligations of faculty members and the various parameters for their eligibility for promotion. Those parameters place faculty performance and attitudes at the same level as published research.

There is no need for new laws. The need is for us to observe the existing law. We are civilized enough to do that.

3. Relationship with the Ministry of Health (MOH).

Almost immediately after the previous Annual Evaluation Conference and acting on its recommendation to establish a legal frame for the FOM-SCU/MOH relationship, a working paper was presented to Dr. Sabri Zaki, the Minister of state for Health and to the five Governors of the region. This paper proposed five options for action. The Minister and the Under Secretaries selected the option which would set the collaboration between the FOM and MOH service facilities within the framework of the "Teaching Hospitals and Institutions Authority (THIA)". During the last year a committee of three persons: Dr. Saad Fouad, first Undersecretary of MOH, the Legal Councillor of the Minister of Health and the Dean of FOM-SCU was given the task of assisting in drafting a new Law for the reorganization of THIA which included three major developments to suit the needs of FOM-SCU/MOH collaboration:

- a) Establishment of partially autonomous regional "branches" for the THIA, a "branch" would cover five Governorates of Suez Canal Area and Sinai as one region.
- b) Incorporation of Teaching Urban and Rural Health Units besides Hospitals.
- c) Possible inclusion of University-affiliated Teaching Hospitals within THIA.

At present, this draft has been revised and is ready to be submitted to the Board of the THIA before being processed in the Government and presented to the People's Assembly.

A further development is that the Local People's Council and the Governor of Port-Said Governorate have already formally requested from the Minister of Health and from the University the affiliation of Port-Said General Hospital to FOM-SCU as a THIA Hospital.

Related to this, the University is presently seeking funds to build -or renovate- a new 350 bed hospital in Ismailia to supplement or replace the old, inadequate Ismailia General Hospital.

In order to provide for the educational/service/research requirements of Phase III of the under-graduate curriculum, in which implementation will start only one year from now, and the subsequent years including the needs of post-graduate training, FOM-SCU faculty members should be adequately and effectively delivering service in "clinical space" of 800-900 bed by 1985. This means most of the large hospitals in the Suez Canal Area including the proposed new Ismailia General Hospital. This is apart from the equally vitally needed rural and urban health units to support the primary care component of the under-graduate program and the General Practice Training program.

It follows that the following necessary steps should be taken:

- a) The new THIA Law should be urgently processed.
- b) Appropriate interim measures should be taken by

FOM-SCU, Ministry of Health and the local governments in the region to consolidate existing relationships until the law is made effective.

c) A program for up-grading the service pattern in the concerned hospitals and units should be started within the next year, well before the arrival of the students. This step involves joint expenditure by the University, the MOH and the local governments, particularly to up-grade medical recording, support laboratory facilities, libraries etc.

d) Start building or renovating the new Ismailia Teaching Hospital as a contribution from the University to the larger education/service complex.

e) Recruit enough faculty members to support the above needs.

OTHERWISE, WE FACE A CRISIS ONE YEAR FROM NOW.

4. Relationship With Other Medical Schools - The Issue of Replication.

A wise wait-and-see attitude characterizes the attitude of other Egyptian medical schools toward FOM-SCU. They have to experience the quality of our graduates before ceasing to look upon us rather curiously. Even newer schools in other universities, yet to open in Menya and possibly in Menoufiah Governorates, have expressed no desire to follow our track for understandable reasons. The reason for our present misfortune with the extra number of students to be admitted this year is that in the previous two years other medical schools have been forthcoming in relieving us from the extra load, by taking in a few more students each. This year, we have received a firm NO from Cairo University and almost the same from Ain-Shams University. We are not blaming them, they have the right to protect their medical schools against congestion. The blame falls on the baneful "exempted groups" system. It is shameful and unfair and should simply disappear.

It is too premature to call for replication of FOM-SCU program in other medical schools in Egypt. Replication, astonishingly, is about to happen in a totally unexpected direction. Suez Canal University is currently seriously considering the adoption of a COMMUNITY - ORIENTED PROBLEM - BASED APPROACH in the new Environmental Studies Institute in AL-AREESH, Capital of North-Sinai. This will be a notable additional break-through by our pioneering University.

5. Where We Have Gone Astray: Post-graduate Education:

Our indulgence in Post-graduate Education (PE) was out of good will. But during the last year we realize that we have stepped into quicksand. This does not apply to our Masters program in General Practice which is judged to be the best in the Country inspite of our feeling that there is still much room for further development and improvement. The issue deserves some explanation.

Several years back, we have witnessed with great alarm the dangers of sending our Junior Faculty for post-graduate training to obtain their Masters and MD Degrees in other medical schools where they would spend most of their formative years in a totally different environment, where they would be estranged from the school's community orientation and educational methodology. Moreover, they were needed for sharing in the innumerable tasks demanded by the innovative program. It was decided therefore to shift the training of the majority of our junior faculty to FOM-SCU and we supplemented our faculty with contracted professors from other Universities to help in their training.

There were undoubted benefits from this policy:

a) Laboratory, research and library facilities have developed at a satisfactory speed to an acceptable standard.

b) A major load of the school program is being conducted by the junior faculty.

Many of them have accumulated high levels of proficiency in education and are extremely well-versed in the various aspects of the educational program. Certainly they are committed to the school and the University and they would in few years contribute to the required critical mass.

Opening the door to post-graduate education in our school however put us under heavy pressure from our colleagues working in the Ministry of Health hospitals and units in the Suez Canal Area, with whom we are closely affiliated and whose training needs we are obliged to satisfy. We yielded under this pressure and admitted them to our post-graduate programs side with our Junior Faculty. Our experience during the last year has proved beyond doubt that we were probably mistaken in indulging so prematurely in post-graduate education at a time when we are still struggling with developing an extremely demanding under-graduate program and with extremely limited number of senior faculty who - however talented - cannot cope with such a load. Moreover, we were under the continuing feeling of inconsistency, as we were adopting in the post-graduate program an educational methodology completely unrelated to our under-graduate one. Consequently, this issue was thoroughly discussed during the Local Evaluation Conference and the unanimous recommendation was to SUSPEND for a period of one year any new registration for post-graduate Masters Degrees EXCEPT for the Masters in General Practice. A few from our faculty are eligible for registration of MD and PHD degrees. These will be registered with appropriate heavy supervision by visiting professors from other medical schools both from Egypt and from abroad utilizing the "Channel" system. During the "suspension" year we will develop our human and physical resources and develop appropriate programs that would match our style and level of excellence in under-graduate program. Also it is during this year that the whole system of post-graduate medical education is being overhauled all over the country by the Section of Medical Education of the Supreme Council of Universities.

6. The International Arena.

The mere presence of this distinguished gathering of leading experts in medical education from various centers in the world speaks for the prosperity we are enjoying in the international area and the great interest the FOM-SCU program has created all over the world. One of our distinguished guests, Professor Ronald Richards, has kindly described the FOM-SCU program as "one of the most important efforts in the world to make medical education more responsive to the basic health needs of the people". We are infinitely grateful to USAID, whose grant, executed through our collaborators from Boston University, had made it possible for us to benefit from the widest and most relevant expertise in the world as required by various aspects of our program, including this Conference. The British Government has fully supported the training in UK of two junior faculty members who successfully obtained the membership of the Royal College of General Practitioners and one of whom has already returned. The second is due in a few weeks time.

The Event of the year however, was the election of the Dean of FOM-SCU as Chairman of the Network of Community Oriented Educational Institutions for Health Sciences. This took place in the Third General Meeting of the Network held in Havana, Cuba in July, 1983. The next General Meeting will be held in Ismailia in April, 1985.

Distinguished Guests and Colleagues:

Our duty as physicians is to arrive at the diagnosis that describes the real status of the patient, however disconcerting that may be to the patient or his family. We are anxious but not afraid of hearing the truth expressed by your wisdom. Be sure that we are more comfortable living with a painful truth than in a fool's paradise.

Thank you and Good Luck.

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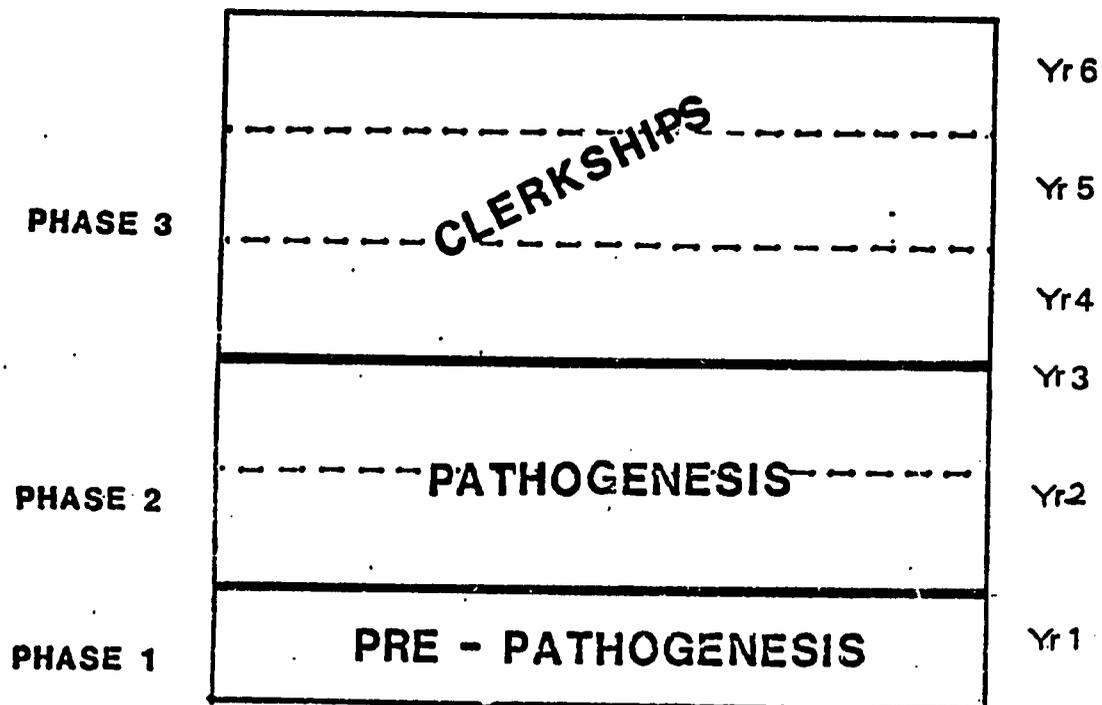


FIG 1 OUTLINE OF CURRICULUM . A
(DETAILS IN TEXT)

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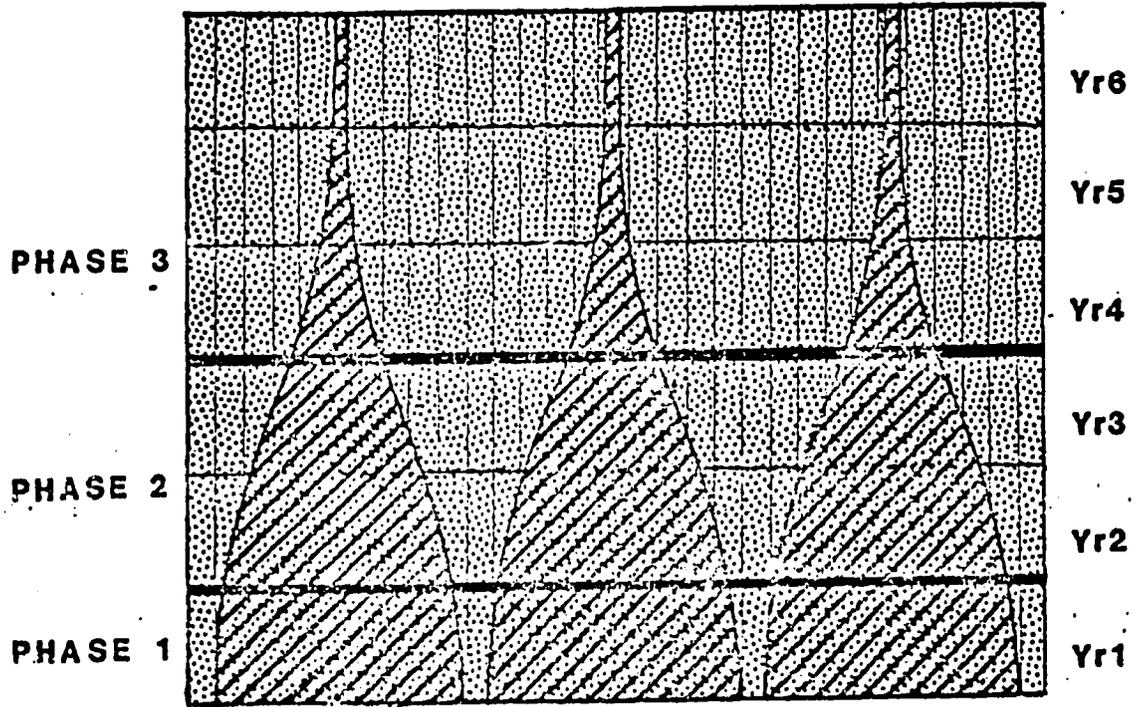


FIG 1 OUTLINE OF THE CURRICULUM -B
(DETAILS IN TEXT)



BASIC SC.



CLINICAL SC.



COMMUNITY MEDICINE

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THE FRAMEWORK OF THE CURRICULUM

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PHASE III	VI	SURGERY 2w		MEDICINE 3w		OBSTETRICS & GYNAECOLOGY 1w	PAEDIATRICS 1w	EMERGENCIES MED. SURG. 1w	COMMUNITY PROJECTS 2w	GENERAL PRACTICE 6w	PHASE EXAM
	V	SKIN 4w	OPHTHALMOLOGY 4w	E.N.T. 1w	ENTRANCE 1w	ENTRANCE 1w	ENTRANCE 1w	GENERAL PRACTICE 4w	COMMUNITY PROJECTS 4w	ELECTIVE 1w	
	IV	MEDICINE 6w		PAEDIATRICS 8w		OBSTETRICS & GYNAECOLOGY 8w		SURGERY 8w		COMMUNITY PROJECTS 1w	ELECTIVE 6w
PHASE II	III	DIGESTIVE SYSTEM & NUTRITION 6w		ENDOCRINE SYSTEM METABOLISM 6w		REPRODUCTIVE SYSTEM 6w		SPECIAL SENSES 5w	NERVOUS SYSTEM 6w	PSYCHOSOMATIC DISEASE 6w	PHASE EXAM.
	II	INFECTION & INFLAMMATION 6w		TUMOUR 6w		CARDIORESPIRATORY 6w		BLOOD AND BLOOD VESSELS 6w	KIDNEY AND HOMEOSTASIS 6w	LOCOMOTOR 6w	
PHASE I	I	INTRODUCTION TO MEDICAL STUDIES 5w	HUMAN AND HIS ENVIRONMENT 5w	PREGNANCY AND NEONATE 5w	INFANCY AND CHILDHOOD 5w	ADOLESCENCE AND ADULTHOOD 5w	THE ELDERLY 5w	ACCIDENTS AND EMERGENCIES 5w		PHASE EXAM	

Fig 1-C

FOMSCU PROGRAM: BASIC FEATURES

<u>COMMUNITY - ORIENTED</u>	<u>COMMUNITY-BASED</u>	<u>PROBLEM BASED LEARNING</u>	<u>EVALUATION</u>
<ul style="list-style-type: none"> - Curriculum based on / derived from major health needs of Community & Optimum Performance of Egyptian Physician. - Educational process centered on working with common individual and major community health problems along the concept of Natural History of Disease . - Teaching/learning process incorporates a service component. - Research directed to major community health problems. - Close collaboration with Ministry of Health aiming at integration of learning and service. 	<p>Clinical & Field Training occur in hospitals, urban & rural health units, schools, factories, homes etc.spreading over SUEZ CANAL AREA & SINAI (5 Governorates):</p> <p>Population:</p> <ul style="list-style-type: none"> - Urban - Rural - Beduin - Industrial - Agricultural - Marine. 	<p>Educational Process Characterized by:</p> <ul style="list-style-type: none"> - Learning acquired by working at understanding and resolution of problems. - Student-centered - Following faculties fostered: <ul style="list-style-type: none"> - self-learning - Critical thinking - Critical appraisal of self and others . - Problem solving - learning / working in a team. 	<p><u>A- STUDENT</u></p> <ul style="list-style-type: none"> - knowledge - skills - attitudes <p>[</p> <ul style="list-style-type: none"> - content - process <p>]</p> <ul style="list-style-type: none"> - Self-conducted - Teacher conducted <ul style="list-style-type: none"> - Weekly - End of Block - End of Phase <p><u>B- PROGRAM:</u></p> <ul style="list-style-type: none"> - Current - Product <p>[</p> <ul style="list-style-type: none"> - Internal - External <p>]</p>

TABLE I - Basic Features of FOMSCU Program

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