

**ANNUAL REPORT**



**The Johns Hopkins Program of International  
Education in Gynecology and Obstetrics**

**FISCAL YEAR 1980**

**Grant AID/PHA-G 1064**

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JHP I EGO CORPORATION

SIXTH ANNUAL REPORT

October 1, 1979 - September 30, 1980

Grant AID/PHA-G-1064

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## REPORT FORMAT

The JHPIEGO Annual Report is divided into five sections, and includes an appendix. Section I is a description and review of program operations during fiscal year 1980. Not included in this section is the report of in-country activities, which are described in Section II. This section includes a synopsis of each of the JHPIEGO overseas programs implemented in the past fiscal year, and also presents a unified summary of regional activities.

Section III provides a review and summary of major policy or operating changes during the year, while Section IV outlines the JHPIEGO work plan for the current year.

Section V is the fiscal report.

Also included in this Annual Report is an appendix that provides a summary of the recommendations of the JHPIEGO International Council Meeting held in Kenya in March 1980, as well as a listing of recent publications of JHPIEGO staff members.

**SECTION I**  
**REPORT OF THE PRECEDING YEAR'S OPERATIONS**  
**October 1, 1979 - September 30, 1980**

## A. INTRODUCTION

As JHPIEGO enters the new decade, we report with pride that the educational initiatives, developed during the first five years of our program, have taken root. More than 3000 physicians and paramedical personnel, representing institutions in 103 countries, have received training in JHPIEGO programs, both at U.S. and overseas centers. These health professionals are now working in their own countries to solve the problems of reproductive health. Successful completion of this task will improve the lives of millions in the cities and villages of the five continents by providing them with a comprehensive program of reproductive health care.

Of prime importance this year were the negotiations, and formal signing on September 1, 1980, of a cooperative agreement with the Agency for International Development (AID) for continued support of JHPIEGO programs for two additional years. This funding represents a vote of confidence. With it, JHPIEGO can move closer to our goal, the enhancement of the quality of life for women and their families in developing countries. AID's continued funding stems chiefly from its recognition of the accomplishments in our operations, especially those of the past year. Achievement can be identified in all operating areas of the Corporation.

During the year 1979-80, the JHPIEGO strategy of developing collaborative educational programs with overseas institutions became firm. In the previous year, training had been underway in four countries. This program year, training was offered in 13 countries. Educational programs began in Nigeria, Brazil, Indonesia, Malaysia, Pakistan, India, Thailand, Egypt, and Turkey, while existing programs in Kenya, Tunisia, the Philippines and Colombia continued.

Nurse training components were also included in several of the above programs. New nursing programs were conducted in Brazil, Indonesia, Malaysia, Pakistan and Turkey, while the Colombian nurse training program continued. Additionally, an agreement was developed with the Benadir Hospital and the Ministry of Health in Somalia for a program which would provide pragmatic training to physicians who do not have formalized training in obstetrics and gynecology. An additional component of this program is a two-week course for nursing school instructors to develop teaching skills and to introduce concepts of reproductive health.

Reflecting the proliferation of JHPIEGO overseas programs, 377 clinicians and 173 nurses received formal training in these programs.

A new program initiative this year was the development of the Reproductive Health Education Program (REHEP) strategy by the JHPIEGO Latin American region. The REHEP program was designed to upgrade the education of medical and nursing students throughout Latin America and other parts of the world. Didactic lectures, clinical management seminars, and clinical practice tutorials are provided to students with a minimum of 120 hours of instruction. The first REHEP program was initiated in September at the University of Santa Maria Medical School, Rio Grande do Sul, Brazil.

An essential component of JHPIEGO programs are the clinical practice centers in overseas institutions. These supplement the basic instruction offered in didactic courses, both in the United States and overseas. JHPIEGO-trained surgeons provide clinical demonstrations in endoscopic techniques at these centers. Eleven new clinical practice agreements were negotiated during the year, bringing to 43 the number of JHPIEGO clinical practice centers functioning or in the process of development.

Recognizing the essential role of equipment maintenance in the operation of programs, JHPIEGO supported endoscopic maintenance centers in Colombia, Costa Rica, the Philippines, the Dominican Republic, and Malaysia this year. Plans are under way for centers in Peru, Chile, Sudan, Pakistan, and Nigeria. This brings to 10 the number of JHPIEGO maintenance centers functioning or in process of development. Training was also initiated for 15 maintenance technicians.

The expansion of in-country training programs decreased the need for more than one educational and training center in the United States. This year, for the first time since the founding of JHPIEGO, only one U.S.-based program, the one at Johns Hopkins, was operating. Two-hundred and nine physicians and allied health personnel from 61 countries participated in 13 courses at the JHPIEGO educational center at Johns Hopkins. For the first time, physicians from Burundi, the Cape Verde Islands, Guinea Bissau, Mauritania, Mozambique, Martinique, Burma, and the Solomon Islands participated in JHPIEGO programs.

Two new educational programs were conducted at the Johns Hopkins Educational Center this year. "Academic Skills for Medical School Faculty in Reproductive Health", was offered in June and again in July. This course helps to promote indigenous research capabilities within national teaching institutions in developing countries. Twenty young physicians on the faculties of medical schools from 16 countries had the opportunity to participate in this program.

Because of worldwide interest in and growing need for the technique of tubal reanastomosis, JHPIEGO collaborated with the Department of Gynecology and Obstetrics of the Johns Hopkins University in sponsoring two courses in tubal microsurgery. Twelve physicians attended these courses. A

microsurgery course was also sponsored and conducted for the very first time as part of a JHPIEGO in-country program in Bogota, Colombia, in February 1980, and was attended by both Colombian and regional physicians.

This year also saw implementation of the JHPIEGO/Pakistan program, supported by the United Nations Fund for Population Activities. Sixteen physicians and 26 nurses attended courses under the auspices of this program, with continued implementation expected during the next program year.

Under funding received from the Jessie Smith Noyes Foundation, physicians from Bolivia and Mozambique were provided the opportunity to attend JHPIEGO courses. These were physicians from countries not eligible to participate in AID-funded JHPIEGO programs.

In response to numerous requests from the field, JHPIEGO continued to provide educational packages and teaching materials to individuals and teaching institutions overseas. Twelve-hundred and eighty-four JHPIEGO educational packages were shipped, more than 10 times the number provided in the previous year. Additionally, 271 copies of the JHPIEGO films, The Technique of Laparoscopy and Laparoscopy Equipment Care, were donated to educational organizations overseas.

Action was also initiated to prepare educational materials for in-country programs. Manuals on the care and maintenance of laparoscopic equipment were compiled for distribution to all JHPIEGO physicians, nurses, and operating room personnel concerned with endoscopic services.

The JHPIEGO History and Evaluation Unit was responsible for preparing a directory of medical schools in Africa, Asia, and Latin America, which proved very useful in identifying and recruiting candidates for JHPIEGO's U.S. and overseas courses. These manuals represent the most comprehensive directory of medical schools and teaching hospitals in less developed countries available anywhere today.

Administratively, certain changes were instituted to strengthen JHPIEGO's ability to manage a program with a primary focus, overseas training. A Grants Unit was formed to assist with the monitoring of country agreements. Also, a Xerox 860 information processing system was purchased to improve the maintaining and recording of data, particularly on in-country programs. In addition, the relationship of the JHPIEGO History and Evaluation Unit with the Department of Behavioral Sciences of the Johns Hopkins University School of Hygiene was concluded with this unit becoming an integral part of the JHPIEGO core operation. This action is expected to further provide JHPIEGO with additional program information, important for the successful operation of overseas programs.

While we have achieved much during the year, many more challenges lie ahead, requiring a varied and innovative program. The direction of JHPIEGO programs will change as need warrants. As stated in JHPIEGO's cooperative agreement with AID:

It will be the thrust of JHPIEGO's educational efforts to institutionalize in teaching institutions in developing countries, the knowledge and skills necessary for the delivery of comprehensive reproductive health care. The stimulation, development, and establishment of didactic and/or clinical training centers within countries and regions are major elements in this program as is the provision to LDC institutions of medical equipment and technical assistance in faculty and curricula development. Flexibility to meet changing needs in continuing education for physicians and other health professionals is essential in program design. New designs for curricula and for training centers will need to be formulated. For many of the developing countries, their participation often dictates that these new techniques in reproductive health be placed in a broad health context. The basic concept of highly personalized instruction in certain essential technical skills, will continue to be emphasized as a component of the educational program to prepare each trainee to provide clinical services and to provide instruction to other professionals.

To achieve our goal, we must plan with vision and be ready to help change the traditional ways. We must give health workers and communities the knowledge and tools needed for participating effectively in the health

system. JHPIEGO Staff members are confident that in the years ahead we can continue to develop innovative educational and training programs, which will help to make improved health care available to thousands of people in the developing world.

## B. HISTORY AND FOCUS

The JHPIEGO Corporation is the direct outgrowth of a Johns Hopkins University study carried out in 1973 through the support of a planning grant from the Agency for International Development.

The results of the study were presented in December 1973, to a committee of international experts and a Johns Hopkins University Advisory Committee. The Committee jointly recommended that steps be initiated to design the structure and develop the by-laws of a University-affiliated corporation which could organize and implement a Program for International Education in Gynecology and Obstetrics. Its purpose would be to upgrade the knowledge, skills, and technology of obstetricians and gynecologists and other qualified professionals in developing countries, to advance the diffusion of and make a critical evaluation of new reproductive health methods as they develop, and to encourage incorporation of those techniques into the everyday practices of medical professionals.

In June 1974, an AID grant was awarded to the JHPIEGO Corporation to enable this institutional model to serve as the intermediary agency to administer and lead collaborating institutions in the United States and interested developing countries to participate in the Program for International Education in Gynecology and Obstetrics. JHPIEGO was to not only provide educational leadership, but would also serve as a management vehicle to mobilize resources and channel funds and equipment to the educational institutions participating in the program.

A significant event in JHPIEGO's history occurred in September 1980, with the signing by AID and JHPIEGO of a cooperative agreement for continued support of the JHPIEGO program until at least September 30, 1982. This funding will provide JHPIEGO the means to continue to organize educational

programs for the purpose of upgrading the knowledge, skills and technology of obstetricians and gynecologists and other qualified health personnel in developing countries in order to promote the mutual goals of AID and JHPIEGO.

### Focus

From the beginning, JHPIEGO has evolved through a series of stages. Major educational and training programs were conducted by the Department of Gynecology and Obstetrics at the Johns Hopkins University, the Washington University in St. Louis, the American University in Beirut, and by the University of Pittsburgh in collaboration with the Western Pennsylvania Hospital. The Directors of these centers, together with JHPIEGO staff, formed a Council of Associates for the (1) selection of physicians from developing countries to receive training, and (2) consideration of equipment, curriculum, and policy. Cadres of physicians from leading institutions in the developing countries were brought to these JHPIEGO-supported educational and training centers for intensive short-term postgraduate courses, emphasizing high risk pregnancy, the management of fertility and infertility, surgical contraception, and other components of broadly based postgraduate courses designed to improve reproductive health.

When the program began in 1974, it was thought to be possible to provide in addition to didactic training and clinical observation, some personal participation in clinical practice in these institutions. In a short time, this was no longer possible, and the physicians were and continue to be sent overseas to clinical practice centers for technical training and clinical experience following the didactic phase of their course at the Johns Hopkins education center. Upon certification of the competence of the individual physician by the director of the educational and clinical practice center, JHPIEGO sends surgical equipment as appropriate to the physician's home

institution. Shipment of equipment, is followed by Phase III of the JHPIEGO program, a field training visit by a JHPIEGO consultant to install the equipment, observe the physician's ability to use the equipment in his home environment, and to acquaint the operating room staff with the importance of cleaning, care and maintenance of the equipment.

Over the last few years, all of the U.S. based educational centers have ceased operation, with the exception of the Johns Hopkins University center. This has been due to the changing JHPIEGO focus, with the emphasis now being on the development of in-country educational centers to meet the demand for training which has been generated by the large in-country cadre of JHPIEGO-trained physicians, who expressed an interest in developing these programs.

It also should be mentioned that the types of JHPIEGO programs being conducted at the U.S. center, have greatly expanded over the years from the initial clinicians course, conducted only in English and Spanish. In addition to the physicians course, programs are also held on Management of Infertility, Administration, Microsurgery, and Academic Skills. Most of these courses are conducted in Spanish, French and Portuguese, as well as English. A more detailed description of these programs are contained in other sections of this report.

### C. ADMINISTRATION OF THE CORPORATION

The affairs of the JHPIEGO Corporation are managed by a Board of Trustees. The officers of the Corporation include the Chairman of the Board of Trustees, the President of the Corporation, and the Treasurer of the Corporation.

#### Structure and Organization

The Board of Trustees is responsible for the management of the Corporation, and its members are appointed by the President of the Johns Hopkins University. The trustees serve voluntarily without salary reimbursement or consultant fees from the Corporation. There are at present six trustees serving on the Board (Table I).

The Board of Trustees met three times during the reporting period to review the financial status, organization, program, and administrative affairs of the Corporation.

Through periodic mailings, the Board of Trustees also reviews proposed in-country proposals, and other business so that the affairs of the Corporation can continue operating even when the Board does not meet formally.

#### Officers of the Corporation

The President, Dr. Theodore M. King, is the Chief Executive Officer responsible to the Board for the administration of the business and the affairs of the Corporation. The President is selected by the Board of Trustees.

The Treasurer, Robert C. Bowie, has charge and custody of and is responsible for all funds and securities of the Corporation.

The Director, Dr. Ronald T. Burkman, is the Chief Operating Officer, and is directly responsible to the President for program development and implementation.

## TABLE I

## MEMBERS OF THE JHPIEGO BOARD OF TRUSTEES

Dr. J. Richard Gaintner Trustee	Associate Dean of the School of Medicine at the Johns Hopkins University
Dr. Janet B. Hardy Trustee	Director of Continuing Education at The Johns Hopkins University
Dr. John F. Kantner Trustee	Professor of Population Dynamics at The Johns Hopkins University
Dr. Theodore M. King Trustee and President of the Corporation	Chairman of the Department of Obstetrics and Gynecology and Obstetrics at The Johns Hopkins University
Dr. Richard P. Longaker Chairman of the Board	The Provost of the Johns Hopkins University
Dr. Harry Woolf Trustee	Director of the Institute of Advanced Study at Princeton

### International Council of Experts

An International Council of outstanding professionals from other countries is appointed by the President to provide program and policy advice and guidance. The International Council currently consists of the eleven members listed in Table II.

During the past fiscal year, the International Council met in Nyeri, Kenya. This meeting served as a vehicle to discuss the role of JHPIEGO in promoting improved reproductive health care as well as a forum to examine a number of varying international perspectives for reproductive health education. The International Council provided support to JHPIEGO's continued efforts to institutionalize in educational institutions its programs of reproductive health care training. They also encouraged JHPIEGO to continue to be as pragmatic as possible so that educational objectives can be realistically achieved. Council members recommended that JHPIEGO continue to stress the importance of preventive medicine as a means of promoting health and preventing disease rather than education directed solely at therapy and curative medicine.

During the International Council meeting, study committees were formed on the topics of:

- A. Priorities of reproductive health with particular reference to Africa;
- B. Technology and reproductive health training programs; and
- C. Strategies for implementing change in health care education and delivery.

The report and recommendations of each of these committees are located in Appendix A.

The proceedings of the International Council Meeting will soon be published in a volume entitled, "Reproductive Health in the Developing World".

## TABLE II

MEMBERS OF THE INTERNATIONAL COUNCIL OF THE JOHNS HOPKINS  
PROGRAM FOR INTERNATIONAL EDUCATION IN GYNECOLOGY AND  
OBSTETRICS (JHPIEGO)

14

DR. HELIO AGUINAGA  
President, CPAIMC  
(Family Planning Health and Research Center)  
Rio de Janeiro, Brazil

DR. TAHAR ALAQUI  
Professor of Obstetrics and Gynecology  
University of Mohamed V  
Director of Technical Services  
Ministry of Health  
Rabat, Morocco

DR. M.F. FATHALLA  
Dean, Faculty of Medicine  
Professor of Obstetrics and Gynecology  
Assiut University  
Assiut, Egypt

DR. T.D. JAIN  
Chairman, Department of Preventive and Social Medicine  
S.M.S. Medical School  
Jaipur, India

DR. SUPORN KOETSAWANG  
Professor of Obstetrics and Gynecology  
Mahidol University Faculty of Medicine  
Bangkok, Thailand

DR. O.A. LADIPO  
Senior Lecturer, Department of Obstetrics and Gynecology  
University of Ibadan  
Ibadan, Nigeria

DR. JORGE MARTINEZ-MANAUTOU  
Coordinator  
National Family Planning Program  
Mexico City, Mexico

DR. J.K.G. MATI  
Professor of Obstetrics and Gynecology  
University of Nairobi  
Nairobi, Kenya

DR. S.N. MUKHERJEE  
Deputy Commissioner  
Department of Family Welfare  
Government of India  
New Delhi, India

DR. VIRGILIO OBLEPIAS  
Director, Fertility Care Center  
Mary Johnston Hospital  
Manila, The Philippines

DR. FERNANDO TAMAYO  
President, PROFAMILIA  
Bogota, Colombia

#### D. OPERATING DIVISIONS OF THE CORPORATION

##### The Director and Staff

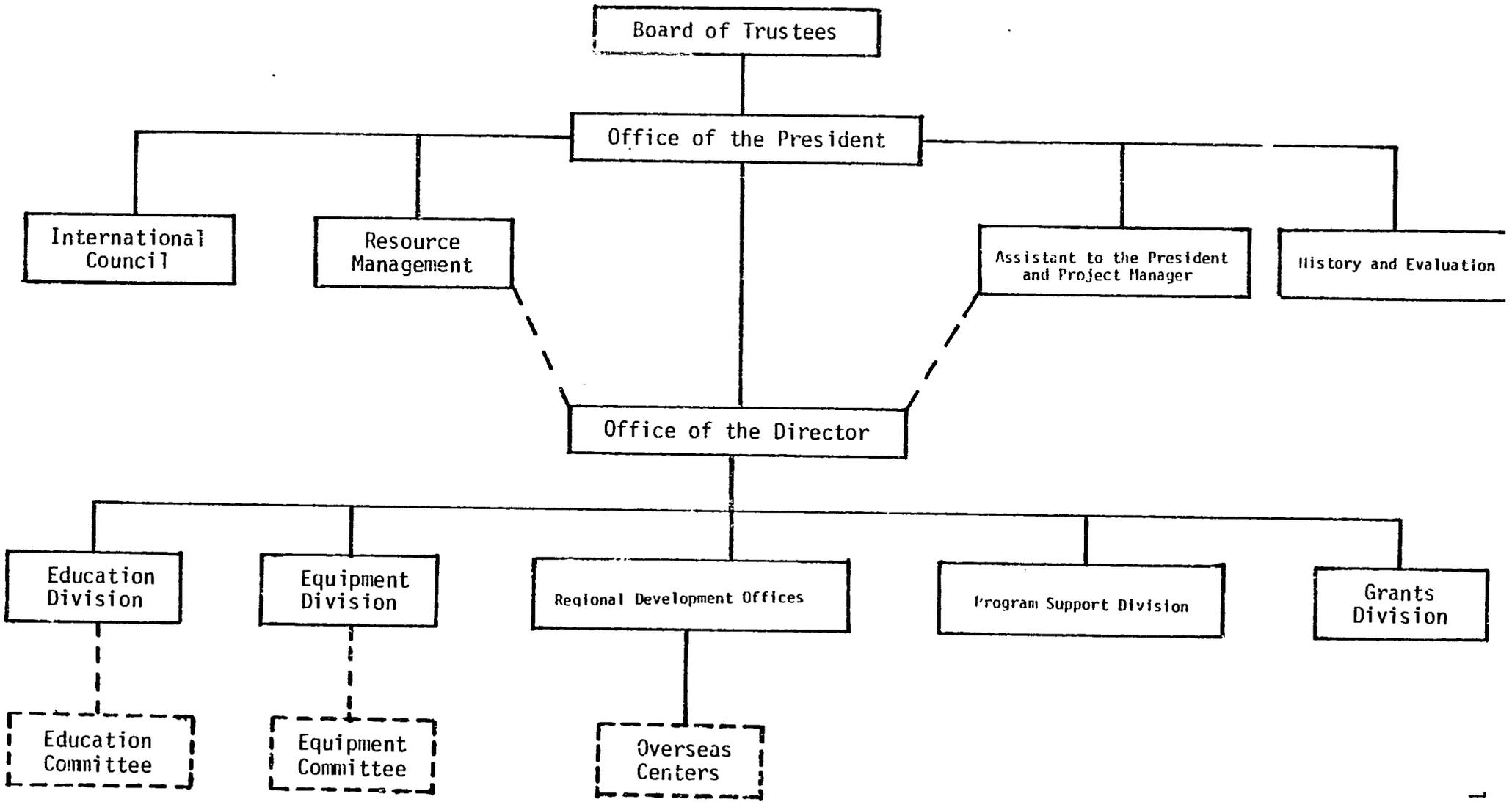
The Director of JHPIEGO is responsible for the development and implementation of JHPIEGO programs. He directs a line operation with supporting functional units. These functional divisions provide program and operational support. A realignment of certain operating divisions occurred during the year in order to facilitate the in-country educational program focus. This included concluding the arrangements with the Johns Hopkins University School of Hygiene for the History and Evaluation Division, and bringing this unit into the JHPIEGO core operation. Additionally, JHPIEGO Travel was moved from the Operations Support to the Program Support Unit. Late in the year, the Operations Support Unit was realigned, whereupon their focus became development of agreements and monitoring of in-country programs. Reflecting this, their title was changed to the Grants Office.

A description of the major activities of each of the major staffing segments of the corporation will be described. Figure 1 provides a table of organization for reference.

##### Office of the President

The Office of the President relates directly to the President and the Director of JHPIEGO and is concerned with policy direction and program management especially as they relate to requirements of AID and the JHPIEGO Board of Trustees. This office was largely responsible, along with the Director and President, for the development of the cooperative agreement with the Agency for International Development.

Figure 1  
JHPIEGO Staffing Pattern



Another major accomplishment during the reporting period was the negotiation and successful resolution of issues raised in the A.I.D. and H.E.W. Audit Reports on JHPIEGO for periods from 1974 through 1979. In addition, this office gave considerable attention to the development within JHPIEGO of a sub-granting capability for in-country programs, with overseas institutions. Three Board of Trustees meetings were covered during the reporting period, and a meeting of the International Council was arranged and held in Nyeri, Kenya, in March 1979.

#### Regional Development Offices

Regional Development Officers for Africa, Asia, and Latin America are responsible for all activities in their region, including stimulation and development of in-country programs, program implementation and analysis, and the monitoring of the programs and fellows trained. Midway in the program year, an additional Regional Development Officer was added to the staff who assumed responsibility for Kenya, Nigeria, Tanzania, and Ghana, as well as monitoring the JHPIEGO/UNFPA grant for Pakistan. The section on country activities and in-country training centers more fully describes activities initiated by Regional Development Officers during the past year.

#### Program Support Division

The Program Support division is responsible for the admissions, travel and central records activities of JHPIEGO. It has responsibility for coordination of information on program and trainee activities in the United States and overseas, to support the director and regional development officers. This encompasses a wide variety of activities and interactions, which include assisting the development of in-country educational programs, scheduling and coordinating field training visits overseas, and organizing national and international conferences and meetings.

- 1). Admissions. This activity assists Regional Development Officers in developing course schedules, recruiting candidates, processing applications, scheduling and assigning participants to U.S. and overseas regional courses. During the reporting period, recruitment was directed to medical schools and teaching hospitals, with emphasis on African countries. New countries reached included Cape Verde, Guinea-Bissau and Mozambique. Recruitment was accomplished in coordination with Regional Development Officers, and other donor organizations. Thirteen meetings of the Selection Committee were convened during the reporting period, for twenty courses, including the Physicians Course (U.S. and regional), the Administrators Courses, and Academic Skills Courses. Applications from four hundred and fifty-eight candidates from sixty countries were reviewed during these meetings. In total, more than 800 applications were processed through JHPIEGO Admissions during the past year.
- 2). Travel. This activity is responsible for planning and processing travel arrangements for all U.S. and overseas regional trainees, as well as all JHPIEGO staff and consultant visits. C.V.'s are also maintained for both U.S. and overseas consultants, and assistance provided in identifying suitable consultants for a specific assignment, as well as new consultants appropriate to training activities. During this reporting period, more than 400 trips were processed for trainees, consultants and staff.
- 3). Central Records. This activity is responsible for maintaining records, reports, and compiling program data. This includes all records and documents relating to an individual's course participation as well as information relating to institutions, equipment provided, and country

background. In this regard, the unit served as a primary source of information and statistics on participants for other JHPIEGO operating units, the educational centers, and the Agency for International Development. At the end of the reporting year, an individual was employed to supervise records management and technical information compilation, and complete the centralization of program records.

The Program Support Division was also responsible for the organization of the JHPIEGO Regional Consultants Meeting held in January in Tunis, Tunisia, which focused on issues relevant to field training in Franco-Phone Africa. This meeting is more fully described on page 53 of this report.

Another activity undertaken during the past year was the development of an "In-country forms package" for use by Project Directors to facilitate reporting to JHPIEGO. This project included revision of the standard individual and institutional application forms to a more concise one page, multi-copy form. The forms package can be adapted to the requirements of each In-country program, and has been translated into French and Spanish.

#### Grants Office

The Grants Office is responsible for writing and processing agreements for in-country projects. Additionally, this office provides back-stop support for the Regional Development Officers for their monitoring of agreements. Other unit responsibilities include maintaining and distributing a control sheet to key JHPIEGO officials on the status of agreements by notifying appropriate JHPIEGO officials of the need for action.

This office also periodically reviews each agreement to ascertain if the documents, forms, and reports required under the agreement have been submitted by the grantee.

Further responsibilities of the Grants Office will be delineated during the next program year.

### History and Evaluation Unit

The History and Evaluation Unit of JHPIEGO has had the responsibility for follow-up and evaluation of JHPIEGO fellows as well as documentation of program progress and achievements. The following are the major activities in which the History and Evaluation Unit was involved during the past fiscal year:

- 1). Maintenance of Data Base - The data base on fellows trained in JHPIEGO programs includes background data on fellows provided by them at the time of application, and records relating to the "processing" of fellows through training programs. The Unit keeps independent records of the status of fellows trained in clinicians' programs at Johns Hopkins, Pittsburgh, St. Louis, American University of Beirut, as well as fellows trained in "on-site" programs in Barbados, Bolivia, Afghanistan and Turkey. It periodically reviews its records with the JHPIEGO staff for the purpose of up-to-date record maintenance and for review of program operations. The data base also includes trainees in the International Nurse Education Program (INEP) conducted at Johns Hopkins (but now discontinued) and trainees in the Family Health and Family Planning Course for Administrators, also conducted at Johns Hopkins. With the exception of certain recent classes of administrators, data on the above group of trainees are available in computer files.

A census of fellows trained in in-country programs through September 30, 1980, has been compiled and includes fellows for whom JHPIEGO had been notified of attendance as of this date. The Unit has also maintained a "log" of these fellows and of information relating to the "processing" of fellows through the in-country training programs, as this information becomes available.

- 2). Follow-up Mail Survey Among JHPIEGO Physicians - A major activity of the History and Evaluation Unit is a mail survey among those trained in clinician programs to determine the activities of physicians after they return to their home posts following JHPIEGO training. A minimum of six months is ordinarily allowed after completion of training before the first questionnaire is mailed to fellows.

The first survey of physicians included those trained through November, 1978 at Johns Hopkins, Pittsburgh, St. Louis, AUB, and in on-site programs in Barbados, Bolivia and Turkey. English and Spanish versions of the survey questionnaire were prepared for this survey. This survey was completed by the summer of 1979. During FY 1979-80 data from this survey have been "cleaned" and analysis of data begun. In this survey, 1616 mailings were sent to 789 physicians and questionnaires were received from 517 physicians, a "return" rate of 65%.

A second survey among physicians begun in February, 1979 has continued during FY 1979-80. As of the end of the fiscal year, questionnaires have been sent to 975 fellows participating in training programs at the major educational centers and in on-site programs. The targeted group for the second survey comprises fellows to whom mailings were sent in the first survey, and, in addition, those attending JHPIEGO courses after November 1978. As of September 30, 1980, the Unit has sent 1976 mailings in the second survey and had received questionnaires from 446 fellows. English, Spanish, and French versions of the questionnaire have been used in the second survey.

As the JHPIEGO program has grown and the length of time since training has increased, keeping in touch with fellows through surveys represent a major effort. This effort, however, is of benefit to the operation of JHPIEGO as well as to evaluation efforts. The survey

obtains information relating to changes in mailing address, institutional affiliation, and equipment problems. Many of the returned questionnaires also include additional information in a final section where fellows are invited to write their "comments and suggestions". Included in this section is information relating to the activities of fellows, problems they encounter, and requests intended for the operating staff of JHPIEGO.

Copies of questionnaires are routinely sent to the central records on a weekly basis, and JHPIEGO professional staff members are notified in a memorandum of the questionnaires received. This memorandum also notes the present mailing address ( and indicates changes, if any) of the fellow, and hospital and medical school affiliations. It also notes requests by fellows to be acted upon by the JHPIEGO staff, and reproduces the "comments and suggestions" section of the questionnaire. In its mailings to fellows, the Unit routinely encloses the most recent announcement of publications available from the Population Information Program (also located at Johns Hopkins University) and forwards requests of fellows for publications to this program.

- 3). Survey of Administrators - A survey of fellows attending the Family Health and Family Planning Course for Administrators of programs began in late September, 1980. Questionnaires for this survey will include English, Spanish and French language versions.
- 4). Survey of Medical Schools - During the past year, the History and Evaluation Unit has continued the survey of medical schools in LDC's. This survey was undertaken for the purpose of determining the universe of institutions to which JHPIEGO is expected to relate and for providing information needed for operational purposes.

At the end of the FY 1979-80, the Unit has identified 528 medical schools in LDC's, representing the most complete and up-to-date census

of schools in these countries available. This census has been updated since the last annual report to include medical schools listed in WHO's most recent World Directory of Medical Schools (1979). It includes, in addition, certain medical schools not listed in the WHO directory but obtained through embassies in Washington, D.C., regional compilations of data on medical schools (PAHO and FEPAFEM), JHPIEGO field and trip reports, and interviews with JHPIEGO fellows and foreign students in the Johns Hopkins School of Hygiene and Public Health.

Table III summarizes the status of the medical school survey.

#### Resource Management Office

This office is responsible for financial and administrative management of the Corporation. JHPIEGO functions as both a grantee and grantor, and therefore demands unique services from the business/administrative element. Specific functions of this office include corporate financial reporting; developing, implementing, and monitoring, other than in-country agreements, subagreements and contracts; reviewing of corporate activities for compliance with private and federal grant provisions; assisting in the development of and monitoring the financial requirements for in-country subagreements. This unit also functions as the key element in planning, organizing and developing the most effective use of corporate resources.

During the current operating year, Resource Management has assumed responsibility for the supervision and coordination of the procurement and distribution of educational materials in support of U.S. and overseas training programs.

In order to assure fiscal independence and insure integrity of all corporate fiscal activities, this office reports directly to the President of the corporation.

## STATUS OF MEDICAL SCHOOL SURVEY

Region	(1)	(2)	(3)	(4)	(5)	(6)
	Medical Schools			Teaching Hospitals Known for Schools Where Data Available*		
	Total Known Schools	Data Available	Data Not Available	Total*	Principal Teaching Hospital*	Other Affiliated Hospitals*
Africa	41	36	5	68	41	27
Asia (exc. India)	108	95	13	238	114	124
India	109	74	35	163	90	73
Near East	61	46	15	125	66	59
Latin America (includes Central America and West Indies; excludes Brazil and Mexico)	79	66	13	319	127	192
Brazil	75	71	4	234	70	164
Mexico	55	30	25	178	47	131
Total	528	418	110	1325	555	770

\*Data in these columns refer to the teaching hospitals of medical schools in Column 2.

### Equipment Unit

The Equipment Unit continued, during the reporting period, to carry out its functions in the areas of procurement, shipment, maintenance and repair of the medical equipment used in programs. It also provided certain of these services for the International Project, Association for Voluntary Sterilization and other AID-supported organizations. The Brethren Service Center continued to serve as the warehousing and shipping facility. The Equipment Unit monitored this subcontract and made the necessary shipping arrangements. Transfer of Title from the JHPIEGO Corporation to the recipient institution was documented by the Unit for JHPIEGO provided equipment. The Equipment Unit also provided the necessary repair service, spare parts or modernized components at either cost or no cost, whichever would best achieve the purposes of the program. An additional aspect of this service was coordination of arrangements for training local technicians in the maintenance and repair of the equipment when requested to do so by a national organization, Ministry of Health or USAID Mission. Distribution logs on all equipment and spare parts were also maintained by the Equipment Unit.

During January, 1980 the Equipment Unit assisted at the JHPIEGO Regional Consultants Meeting in Tunisia demonstrating the Laproscator and in discussing Laparoscopic Equipment, Care and Maintenance throughout the Francophone African countries.

During the early part of 1980 the Equipment Unit developed specifications for a Microsurgery Kit consisting of various instruments and suture. These kits will be distributed to selected physicians who successfully complete the Microsurgery courses.

JHPIEGO also asked AID to renegotiate two existing Term Contracts with G.S.A. for maintenance parts for laparoscopic systems. One is in the process

of being renegotiated which expired June 30, 1980 and the other is effective until November, 30, 1980.

During FY '80 it became necessary to establish a Term contract for existing Laproscators. JHPIEGO requested AID to negotiate a favorable contract with G.S.A. This is also in the process of being negotiated and is expected to be awarded by November 1, 1980. At that time JHPIEGO will purchase 400 Laproscators which will be used to fulfill its equipment needs for FY'81.

During January of 1980 the JHPIEGO Equipment unit assisted the International Project, Association for Voluntary Sterilization with establishing an in-country control reporting system in Jamaica at their Repair and Maintenance Center (RAM) which functions under the National Family Planning Board.

During March of 1980 the JHPIEGO Equipment Unit assessed the in-country maintenance program supported by JHPIEGO and administered by the Ministry of Health, Bogota, Colombia. At that time seven (7) additional technicians were trained in Laparoscopic equipment care and maintenance who will function from satellite centers throughout Colombia.

During April of 1980 the JHPIEGO Equipment Unit assessed the needs for a maintenance and repair center at the King Edward Medical College, Lahore, Pakistan under a special grant from UNFPA to JHPIEGO.

During May of 1980 the JHPIEGO Equipment Unit assessed the needs for a maintenance and repair center at the Government Stores Warehouse, Bombay, India. This RAM Center, when established would be administered by the Government of India, Ministry of Health, New Delhi, India.

During June of 1980 the JHPIEGO Equipment Unit assisted CPAIMC, Rio de Janeiro, Brazil and Hospital Mexicc, San Jose, Costa Rica in establishing an

in-country maintenance warehouse for the purpose of repairing and maintaining equipment.

During the reporting year the JHPIEGO Equipment Unit participated in the training of eight (8) technicians in the U.S.A. and seven in-country. The technicians receiving training were from Brazil, Colombia, Malaysia, Turkey, Ghana and the Sudan.

The JHPIEGO Equipment Unit continued to coordinate the procurement requirements for the coming year for JHPIEGO and the AID-funded donor agencies for all major laparoscopic systems and spare parts.

Laparoscopic systems, spare/replacement equipment for continued maintenance and repair of non-functioning parts, and medical kits were procured through the General Services Administration (Table IV).

Parts that needed to be refurbished were handled directly with the manufacturer of the equipment.

During the reporting year, a major portion of this Unit's efforts were directed to meeting the maintenance needs of the equipment previously provided and in use in developing countries, in addition to shipping new equipment as shown in Table V.

Table VI shows equipment shipped since the inception of the program for JHPIEGO programs as well as other AID-sponsored programs.

The JHPIEGO Equipment Unit continued to supply repair kits containing simple tools, as well as spare parts to repair non-functional equipment on-site, to each JHPIEGO consultant making a field training trip. It should be noted that the total dollar value of spare parts shipped during fiscal year 1980 for JHPIEGO and other donor agencies amounted to:

<u>JHPIEGO</u>	<u>IPAVS</u>	<u>OTHERS</u>
\$404,169.68	\$95,492.47	\$28,769.48

TABLE IV

PURCHASE ORDERS PLACED FOR EQUIPMENT FOR  
JHPIEGO, AVS, AND OTHER AID-SUPPORTED ORGANIZATIONS

October 1, 1979 thru September 30, 1980

1.	<u>Maintenance Support:</u>	
	Spare Parts	\$477,213.32
	Misc. (Capital Equipment for In-Country Maintenance Centers - includes Benches, Vises, Arbor, Storage Cabinet, Buffing Wheels, etc.)	3,383.32
2.	<u>Teaching Attachments</u>	110,733.00
3.	<u>Repaired Spare Parts</u>	80,213.85
4.	<u>Microsurgery Kit</u>	50,834.50
5.	<u>CCTV</u>	7,218.00
6.	<u>Major Equipment:</u>	
	System A-1	388,415.82
	Laprocator	1,283,329.00
	<u>TOTAL:</u>	<u>\$2,401,340.81</u>

TABLE V  
LAPAROSCOPIC SYSTEMS  
SHIPPED BY JHPIEGO  
October 1, 1979 thru September 30, 1980

REGION	AGENCY REQUESTING SHIPMENT		
	JHPIEGO	IPAVS	OTHERS
AFRICA	44	1	-
ASIA	150	35	80
LATIN AMERICA	98	29	-
NEAR EAST	65	1	-
TOTALS	357	66	80

TABLE VI

LAPAROSCOPIC SYSTEMS  
 SHIPPED FROM INCEPTION OF PROGRAM  
 THRU SEPTEMBER 30, 1980 FOR JHPIEGO AND  
 OTHER A.I.D. SUPPORTED PROGRAMS

REGION	AGENCY REQUESTING SHIPMENT			
	JHPIEGO	ISTP	USAID	OTHERS
AFRICA	106	-	2	5
ASIA	317	22	246	186
LATIN AMERICA	437	11	48	234
NEAR EAST	149	8	6	31
TOTALS	1009	41	302	456

## E. PROGRAM COMPONENTS

JHPIEGO supports didactic and clinical education and training programs for obstetricians-gynecologists, nurses, and other qualified professionals in reproductive health. The purposes of JHPIEGO programs are to:

- a. Institutionalize the teaching of advances in reproductive health in schools of medicine and other medical training centers in developing countries, so that they become widely available to physicians and their assistants;
- b. Prepare personnel for the provision of reproductive health services, including education in specialized techniques like laparoscopy; and
- c. Increase the number of specialists and other qualified professionals in developing countries who are capable of delivering needed and comprehensive reproductive health services.

In order to meet these diverse educational needs, JHPIEGO organizes a variety of educational and programmatic activities. This includes support of:

- The JHPIEGO Educational Center at Johns Hopkins
- National and Regional Educational Centers
- Clinical Practice Centers
- Maintenance Centers and Training of Maintenance Technicians
- International Conferences, Speakers, and Consultant Meetings
- Educational Resources
- Medical Technology

### Training Activity

As of September 30, 1980, a total of 2459 physicians from 95 countries, representing 1338 institutions have received first generation training under the project (Table VII). Additionally, 293 administrators and 323 nurses have been trained in programs (Table VII). The increase in nurses of 184 over the last reporting period represents more than a 100% increase in nurses trained in JHPIEGO programs, and is attributable to in-country programs.

TABLE VII  
TOTAL  
JHPIEGO PARTICIPANTS  
(ALL PROGRAMS)  
(Inception thru September 30, 1980)

REGION	PHYSICIANS						ACADEMIC SKILLS	NURSES			TOTAL
	(1) NO. OF INST.	(2) U.S. TRAINED	(3) ON SITE	(4) IN- COUNTRY	(5) REGIONAL	(6) ADMINIS- TRATORS		U.S.	IN- COUNTRY	REGION* AL	
Africa	122	124	-	23	49	91	8	34	11	-	340
Latin America	540	434	36	382	13	107	5	10	113	2	1102
Asia	484	280	-	476	1	41	4	51	84	-	937
Near East	192	116	107	411	7	54	3	3	15	-	716
SUBTOTALS		954	143	1292	70	293	20	98	223	2	3095
TOTALS	1338	954	1505*			293	20	323			3095*

2459\*

- (1) Includes only institutions represented by Physician course trainees. Does not include institutions represented by Administrator, Academic Skills, or Nurse trainees.
- (2) Does not include observers does include 26 physicians trained at AUB.
- (3) Courses conducted by Washington University "on-site" Bolivia, Barbados, Turkey, and the didactic program conducted for physicians from Arab countries by the Johns Hopkins Center.
- (4) Courses conducted in-country as follows: Didactic Only - Panama, Dominican Republic, Egypt; Didactic-Clinical - Brazil, Egypt, Kenya, Colombia, Korea I & II, Malaysia, Nigeria, Pakistan, Philippines, Thailand, Tunisia, Turkey; Clinical Only - Jamaica, Afghanistan.
- (5) Tunisia regional course and physicians receiving clinical training in Colombia and Philippines.
- (6) Most participants are also physicians.

\* Includes 92 participants who attended more than one course or program.

JHPIEGO has also shipped 1,009 laparoscopes and laprocaters which are located in 80 countries. (Table VI).

It should be pointed out that institutions in Benin, Burundi, Gabon, Ivory Coast, Niger, Senegal, and Somalia were supplied laparoscopic equipment this year for the very first time.

Table VIII shows training activities at the Johns Hopkins University educational center. It is interesting to note that during FY'80, 209 persons attended courses at the Hopkins educational center. This number was only slightly less than the total of 247 trained (Table IX) at the two U.S. centers in FY'79 (Hopkins and Washington University). The Hopkins center was able to accommodate this number by increasing class size (to approximately 25) and by conducting some courses simultaneously.

The greatest number of Johns Hopkins trainees were recruited from Latin America. Nearly half of these participants (41) were from Brazil, reflecting the emphasis of mobilizing key institutions in that country. The region with the second highest number of participants was Africa; Fifty-seven participants from 23 countries attended courses. This was the largest number of African countries represented in JHPIEGO U.S. programs of any previous fiscal year. This continues to reflect JHPIEGO's continued recognition of the need for training health personnel from throughout Africa in modern techniques of reproductive health.

Table X shows physician training activity in laparoscopy at major U.S., regional, and national training programs from the inception of the program. A total of 964 physicians have been trained in U.S. programs and 777 physicians in overseas programs. Additionally, it should be noted that of the 1338 institutions reached by JHPIEGO (Table VII) 1013 of this total are represented by physicians trained in the use of the laparoscope. The remaining 325

JHPIEGO PARTICIPANTS TRAINED AT  
THE JOHNS HOPKINS MEDICAL INSTITUTIONS

October 1, 1979 thru September 30, 1980

REGION	PHYSICIANS	ADMINISTRATORS	AC. SKILLS	TOTAL
AFRICA	27	22	8	57
LATIN AMERICA	46	39	5	90
ASIA	11 <sup>a)</sup>	4	4	19
NEAR EAST	19 <sup>b)</sup>	21	3	43
TOTALS	103	86	20	209

a) Includes 2 physicians who attended previous U.S. courses.

b) Includes 1 physician who attended a previous U.S. course

TABLE IX  
PROGRAM ACTIVITIES  
JHPIEGO Educational Centers  
(Inception through 9/30/80)

Year	PHYSICIANS						ADMINISTRATORS					I.N.E.P NURSES	JHU Center ACADEMIC SKILLS	TOTAL
	Eng.	JHU			Other Trng. <sup>b)</sup> Centers*	Arab On-Site	Johns Hopkins Center							
		Span.	Port.	French			Eng.	Span.	French	Port.	Turkish			
'73	40													40
'74	49				68									117
'75	32	9			121									162
'76	26	19			99	35 <sup>a)</sup>	15							194
'77	23	42			144		44	14				30		297
'78	21	40			74		10	20	42			35		242
'79	43	17	15		77		28	17	17			33		247
'80	52	36 <sup>d)</sup>	-	15	-		16	17	16	23 <sup>e)</sup>	14		20	209
SUBTOTAL	286	163	15	15	475* 108 <sup>c)</sup>		113	68	75	23	14		20	
TOTAL	479 <sup>a)</sup>				583	35 <sup>a)</sup>	293					98	20	1,508

a) Didactic Program conducted by JHPIEGO for Physicians from Arab Nations.

b) Includes those trained at AUB, Pittsburgh, St. Louis, and Tunisian physicians who received technical training at Baltimore City Hospitals.

c) 108 attended St. Louis On-Site program.

d) One Spanish physician funded by Noyes Foundation.

e) Two Administrators in the Portuguese class funded by Noyes Foundation.

\*Note: Total physicians trained in clinical courses at Educational Centers FY'73-80 = 954. This includes six physicians who participated in two different courses in two FY periods. Adjusted Actual = 948. Also, above courses indicate language of instruction and not necessarily the region of the trainee.

TABLE X  
 PHYSICIANS TRAINED IN LAPAROSCOPY BY TRAINING SITE  
 (Inception thru September 30, 1980)

REGION	Participants Trained at Major U.S. Training Centers and AUB			Participants Trained in Regional and National Programs		
	NO. OF PHYSICIANS	NO. OF PHYSICIANS QUALIFIED	NO. INST. REPRESENTED BY QUALIFIED PHYSICIANS	NO. OF PHYSICIANS	NO. OF PHYSICIANS QUALIFIED	NO. INST. REPRESENTED BY QUALIFIED PHYSICIANS
Africa	129 <sup>a)</sup>	125	79	63	55	43
Latin America	442 <sup>b)</sup>	407	277	201	192	143
Asia	279 <sup>c)</sup>	255	204	152	141	127
Near East	114 <sup>d)</sup>	103	73	361	360	67
TOTAL	964	890	633	777 <sup>e)</sup>	748	380
	for a),b),c) 948 adjusted					

- a) Includes 6 administrators who attended clinical practice and were authorized to receive equipment and/or field visit.
- b) Includes 8 administrators who attended clinical practice and were authorized to receive equipment and/or field visit.
- c) Includes 2 administrators who attended clinical practice and were authorized to receive equipment and/or field visit.
- d) Includes 7 physicians sponsored by USAID/Tunis who received technical training at Baltimore City Hospitals (Baltimore) and Laval University Hospital (Quebec).
- e) Does not include 727 physicians who attended courses unrelated to clinical training in laparoscopy, e.g., update reproductive health courses.

institutions are represented by physicians who attended courses that did not include training in use of the laparoscope, such as reproductive health update courses. It should also be noted that there are a significant number of physicians who attend the administrators course who also are provided with subsequent clinical practice experience.

More administrators were trained (86) during the present fiscal year than ever before. This was a result of adding a course in Turkish and one in Portuguese (Table VIII).

Figure 2 shows country of origin of JHPIEGO administrative trainees.

The following sections describe each of the above program components, with the exception of in-country programs located in Section II.

## 1. The JHPIEGO Educational Center at Johns Hopkins

### Introduction

Prior to this program year, JHPIEGO educational centers were functioning at the Washington University in St. Louis (FY-74-79), and earlier at the University of Pittsburgh (FY'74-76). As of September 30, 1979, the only U.S. based training activity was located at the Johns Hopkins Medical Institutions. This reflected JHPIEGO's intention to focus on in-country training, thereby reducing the need for a second U.S. training center. As of October 1, 1979, most coordination activities previously handled under the subgrant with the Johns Hopkins University were integrated within the administrative core program of JHPIEGO, and a tuition agreement was developed with the Department of Gynecology and Obstetrics of the Johns Hopkins University School of Medicine, to provide faculty and related support for the educational program.



During FY'80 the following courses were conducted at the JHPIEGO Educational Center at Johns Hopkins:

- "Academic Skills for Medical School Faculty in Reproductive Health"
- "Advances in Reproductive Health"
- "The Management of the Infertile Couple"
- "Advances in Reproductive Health for Administrators of Family Health and Family Planning Programs"
- "Microsurgery for Tubal Reanastomosis"

The major objective of all JHPIEGO courses is improvement of reproductive health. To achieve this objective, a core curriculum has evolved which includes:

- Discussions of the concept of reproductive health,
- Discussions of the critical issues of maternal and child health,
- Discussions of the problems of rapid unchecked population growth and its relationship to health, to economic welfare, and to social well-being, and
- Discussions of recent advances in the management and prevention of reproductive failure.

The Microsurgery course was conducted in cooperation with the Johns Hopkins University Department of Obstetrics and Gynecology with the assistance of a grant directly to the Department by the Agency for International Development.

Table XI lists by course title and language, the number of trainees who attended each of the JHPIEGO-sponsored educational programs at Johns Hopkins during the reporting period.

Some of the most significant educational activities which occurred at Johns Hopkins during the reporting period included:

- For the first time, a clinicians course (attended by 15 trainees) was offered in French (Management of the Infertile Couple).

TABLE XI  
 COURSES CONDUCTED AT JOHNS HOPKINS EDUCATIONAL CENTER  
 October 1, 1979 thru September 30, 1980

Title	No. of Courses	Date	Language	No. of Trainees
Infertility	4	October 1979	English	15
		April 1980	Spanish	18
		May 1980	French	15
		September 1980	English	22
Administrators	5	November 1979	English	16
		March 1980	French	16
		March-April 1980	Turkish	14
		June 1980	Spanish	17
		July 1980	Portuguese	23
Advances in Reproductive Health	2	January 1980	Spanish	18
		February 1980	English	15
Academic Skills	2	June 1980	English	8
		July 1980	English	12
TOTALS	13	-		209*

\* In addition, two Microsurgery courses were conducted, funded separately by AID under a different grant, attended by a total of 12 trainees.

- Five administrators courses were conducted during the year, including for the first time, a course in Portuguese, attended by 23 key administrators from Brazil, and other Portuguese-speaking countries, including the Cape Verde Islands, Mozambique, and Guinea Bissau. This was the first time that trainees from the latter three countries had ever attended a JHPIEGO course. In addition, at the request of the Ministry of Health in Turkey, JHPIEGO arranged a special administrators course for key officials from that country. This course was conducted in March 1980, prior to the implementation of the JHPIEGO in-country educational program in Turkey, and is expected to aid the Ministry of Health in developing a cadre of administrators who will assist in implementing the national program.
- A major new JHPIEGO educational program, "Academic Skills for Medical School Faculty in Reproductive Health", was conducted twice, attended by 20 young physicians representing 16 countries.

In addition to the above, a number of changes in the operation of the educational center also occurred. These included:

- The educational center classroom was rearranged to accommodate a larger number of trainees
- Work started on preparation of a short manual for each course which will include all handouts of lectures given in the course. Each handout will contain objectives of lectures, a short summary of the lecture content, and examples of questions used in the pre-and post-test.
- The curriculum for all courses was reviewed and updated.
- One additional classroom was added for use when two courses were being conducted simultaneously, as well as for purposes of small group discussion.

The following is a synopsis of each course offered during the year, beginning with the newer programs. An elaboration of the "core curriculum" is included in the FY'79 annual report and will not be repeated here.

#### Course Offerings - U.S. Centers

##### Academic Skills for Medical School Faculty in Reproductive Health

This course was developed to provide young obstetricians and gynecologists with the necessary skills to enable them to function more effectively in their academic role as investigative and teaching members of a medical school faculty.

The course provides:

1. Refresher seminars in reproductive health and medicine. Emphasis is on preventive health care.
2. Training and research skills required by medical investigators for clinical studies. Epidemiological and biostatistical methods are emphasized, as well as discussion of how to conduct simple studies for improved health services.
3. Lectures in teaching skills for medical school faculty with the goal of providing competent obstetrician-gynecologists with skills enabling them to function in both investigative and teaching roles in their medical schools.

The four-week seminar includes both organized group discussion and practical exercises. Physicians attending the course are junior faculty members who have completed their first five years as faculty members of Departments of Obstetrics and Gynecology.

#### Microsurgery for Tubal Reanastomosis

The JHPIEGO educational center, in collaboration with the Division of Reproductive Endocrinology and Infertility, of the Johns Hopkins University School of Medicine, assisted in organizing two microsurgery courses for obstetricians and gynecologists during the past year, in October 1979, and again in March 1980, attended by a total of 12 participants.

This course was developed in recognition of the fact that voluntary sterilization is the most prevalent method of fertility regulation used worldwide, and although the number of women requiring reversal of sterilization is small, in countries where voluntary sterilization is widely practiced, reversal services should be available. Due to the evolution of microsurgical procedures for the reversal of sterilization pregnancy rates

of 60-70% have been reported. As a result, the technique of microsurgery has received widespread interest with respect to its application to all types of tubal surgery.

The educational program in microsurgery is of two weeks duration and consists of didactic and laboratory instruction, which includes practical sessions in tubal reanastomosis. During the first week, discussion centers on the pathology of the fallopian tubes, and infertility, selection of patients for tubal reconstruction techniques, pre- and post-operative care of patients, endometriosis, and re-implantation of the fallopian tube. In addition, surgery on laboratory animals is carried out. The second week provides each participant with an opportunity to perform the technical exercises necessary to complete a tubal reanastomosis, using microsurgical techniques.

Each course participant was selected from a university center in a country with an existing fertility management program, responsible for a large number of voluntary sterilizations. Each participant was an experienced, highly motivated gynecologist with a specific interest in microsurgery. In addition each participant's center was an institution recognized as an important tertiary care or referral center for that country.

As a result of the initial training program, 16 microsurgical centers for sterilization reversal have been established in universities with existing fertility regulation programs in 15 countries around the world (Figure 3).

Figure 3



Figure 3. The locations of the international microsurgical centers for tubal anastomosis established by the participants completing the course at the Johns Hopkins Hospital.\*

\* Copyright 1980 by Houghton Mifflin Professional Publishers, Inc. Reprinted from "An International Program for the Assessment of Tubal Anastomosis by Microsurgical Technique: A Preliminary Report", by John A. Rock, M.D., Ronald T. Burkman, M.D., Rene Genadry, M.D., and Theodore M. King, M.D., Ph.D., by permission of the publishers.

A data registry has now been established for microsurgical procedures as a result of this training program. The composite data, assessing the results of this international microsurgical training program, will be the subject of a future collaborative report between JHPIEGO and the Johns Hopkins University School of Medicine.

### Advances in Reproductive Health

This course combines both didactic sessions and technical training. In accepting candidates, preference is given to physicians specializing in gynecology and obstetrics who have current teaching responsibilities in medical schools or in teaching hospitals involving programs of education and training for medical students or graduate physicians.

The course is typically conducted in a three-phase sequence. Phase I is a two-week didactic program carried out at the Johns Hopkins Hospital. Phase II consists of demonstration and supervised instruction in clinical techniques relating to reproductive health, including endoscopy, which is based in a JHPIEGO clinical practice center in an overseas institution. At the completion of this second phase, each participant is evaluated as to demonstrated competence with a laparoscope. Final recommendations for the provision of equipment are based not only on the participant's surgical ability and experience, but also on institutional criteria. Equipment donations are made to the institution where the participant has been and is expected to be working. Delivery of instruments is accompanied by an on-site visit by a team of JHPIEGO consultants (Phase III), in most instances.

Two sessions of this course were offered at Johns Hopkins in the period covered by this report attended by 33 physicians.

### Management of the Infertile Couple

This is a two-week course for gynecologists with a special interest in management of infertility. This program includes a review of recent research and technology pertaining to the management of the infertile couple. The course also provides opportunity in the operating room to view demonstrations of the current methods of diagnosis, as well as medical and surgical management of the infertile couple. As a supplement to this course, selected

participants have opportunity to gain clinical experience in the use of laparoscopy. Such selected candidates en route home may attend a one-week clinical practice session at a designated JHPIEGO clinical practice center, in which they gain practical experience in endoscopic techniques, stressing both the diagnosis and management of infertility.

Four infertility courses were conducted during the reporting period for a total of 70 participants. The large majority of these participants were from countries in Africa where infertility is a major reproductive health problem.

#### Advances in Reproductive Health for Administrators of Family Health and Family Planning Programs

This course is designed for physicians or non-medical health officials who hold supervisory positions in family planning and/or maternal and child health programs. The curriculum provides administrators with information pertaining to advances in and the promotion of reproductive health services, various systems of health care delivery, and the administration of family planning and maternal and child health programs.

As noted earlier, five courses for administrators were given in the last 12 months, attended by 86 trainees.

## 2. Clinical Practice Centers

Of continued importance to the JHPIEGO educational efforts, are the smooth and efficient functioning of clinical practice centers located in overseas institutions, which serve to supplement the didactic instruction offered in courses both in the United States and in national and regional centers. Clinical demonstrations in surgical endoscopic techniques with minilaparotomy for back-up are carried out at these clinical practice

centers. In most cases, physicians conducting training at the clinical practice centers are JHPIEGO graduates.

Beginning in the last fiscal year, JHPIEGO formalized its relationships with many of the clinical practice centers in order to provide a tuition payment to the center which provided for the subsistence of the candidate attending clinical practice. Formal clinical practice agreements had been concluded with 25 institutions in eight countries. During the past fiscal year, 11 new clinical practice agreements were negotiated and signed. The centers in El Salvador and Dominican Republic were inactive for internal reasons in those countries.

Late in the reporting period, the JHPIEGO Board of Trustees approved 7 clinical practice centers proposals for Brazilian institutions. It was expected that early in the next program year, formal agreements would be developed with these institutions.

It should be pointed out that in addition to physicians, nurses and anesthesiologists may in some instances receive training at clinical practice centers.

The total number of persons processed by JHPIEGO to attend clinical practice centers during the year was 140. This does not include physicians and nurses who received clinical training as a result of in-country courses. Table XII notes the location of JHPIEGO clinical practice centers.

### 3. Maintenance Centers and Training of Maintenance Technicians

JHPIEGO continued to emphasize development of maintenance centers in countries around the world. During this program year, JHPIEGO supported maintenance centers in Colombia, the Philippines, The Dominican Republic, Malaysia, and Costa Rica. Centers for which agreements had been negotiated, but where actual implementation are still pending are Peru, Chile, Sudan,

AFRICA/CARIBBEANGHANA

University of Ghana/Korle Bu Hospital  
Accra, Ghana

Ghana Police Hospital  
Accra, Ghana

NIGERIA

University College Hospital  
Ibadan, Nigeria

JAMAICA

University of West Indies  
Kingston, Jamaica

TUNISIA

Office of Family Planning and Population  
Ministry of Health  
Tunis, Tunisia

LATIN AMERICABRAZIL

CEPECS  
Minas Gerais, Brazil

SMIRH  
Rio Grande do Sul, Brazil

CLAM  
Parana, Brazil

SAMEAC  
Ceara, Brazil

MCO  
Bahia, Brazil

PIO XII  
Rio de Janeiro, Brazil

CPAIMC  
Rio de Janeiro, Brazil

Hospital das Clinicas da Faculdade de Medicina de Ribeirao Preto  
Sao Paulo, Brazil

CME  
Sao Paulo, Brazil

CPAIM  
Para, Brazil

COLOMBIA

PROFAMILIA/Barranquilla  
Barranquilla, Colombia

PROFAMILIA/Bogota  
Bogota, Colombia

PROFAMILIA/Bucaramanga  
Bucaramanga, Colombia

PROFAMILIA/Cali  
Cali, Colombia

PROFAMILIA/Cartagena  
Cartagena, Colombia

PROFAMILIA/Manizales  
Manizales, Colombia

PROFAMILIA/Medellin  
Medellin, Colombia

PROFAMILIA/Periera  
Periera, Colombia

LATIN AMERICA

(continued)

COSTA RICA

Hospital Mexico  
San Jose, Costa Rica

DOMINICAN REPUBLIC

Maternidad Nuestra Senora de la Alta Gracia  
Santo Domingo, Republica Dominicana

EL SALVADOR

Asociacion Demografica Salvadoreana  
San Salvador, El Salvador

Hospital de Maternidad  
San Salvador, El Salvador

GUATEMALA

Asociacion Pro Bienestar de la Familia de Guatemala APROFAM  
Guatemala, Guatemala

HONDURAS

Asociacion Hondurena de Proteccion de Familia  
Tegucigalpa, Honduras

MEXICO

Hospital Ignacio Morones Prieto  
Monterrey, Mexico

Hospital de Gineco-Obstetricia No. 3 (Centro Medico la Raza)  
Mexico City, Mexico

Hospital Civil  
Guadalajara, Mexico

PANAMA

Hospital Jose Domingo de Obaldia  
David, Panama

NEAR EAST/ASIAEGYPT

University of Assiut/Mabarrah Hospital  
Assiut, Egypt

Ain Shams University Hospital  
Cairo, Egypt

International Islamic Center/AI Azhar University  
Cairo, Egypt

University of Alexandria Hospital/Shatby Maternity Hospital  
Alexandria, Egypt

KOREA

Yonsei University/Severance Hospital  
Seoul, Korea

Ewha Women's University  
Seoul, Korea

Korea University of Medicine  
Seoul, Korea

Seoul National University  
Seoul, Korea

National Medical Center  
Seoul, Korea

PHILIPPINES

Mary Johnston Hospital  
Manila, The Philippines

Pakistan, and Nigeria. In Nigeria, JHPIEGO, for the first time, developed a maintenance center agreement with a private company. It is expected that this center would begin functioning in early 1981.

An important component of the development of maintenance centers is the training of a technician for a one to two-week period, followed by an in-country visit by a JHPIEGO staff member or consultant to assist the technician in developing an inventory and organizing his shop. This year JHPIEGO sponsored the training of 8 maintenance technicians in the U.S. Also, 7 Colombian technicians were trained on-site in Bogota, Colombia. Those trained in the U.S. included technicians from Ghana, Sudan, Brazil, Colombia, Malaysia, and Turkey.

#### 4. JHPIEGO Participation in International Conferences and Meetings

JHPIEGO places a great deal of importance in responding to requests from Ministries of Health and obstetrical and gynecological societies from around the world for staff and consultant participation in conferences and regional, national, and international meetings. It has repeatedly been found that these meetings help to further the dissemination of updated information regarding reproductive health, and thereby assist JHPIEGO in meeting its objectives.

JHPIEGO staff and consultants participated in 15 major meetings during the reporting period, as shown in Table XIII. This included seven in Latin America, four in Africa, three in the Near East/Asia, and one in the United States. Of these 15 meetings, eight were national obstetrical and gynecological society meetings or congresses.

In some cases, JHPIEGO also provides support to the host country or obstetrical society for the sponsoring of a meeting. This was the case in Kenya and Tanzania.

## JHPIEGO PARTICIPATION IN INTERNATIONAL CONFERENCES AND MEETINGS

COUNTRY	MEETING/CONFERENCE	JHPIEGO REPRESENTATIVE	DATES
<u>U.S.</u>	IFRP/Tulane University Seminar on High Risk Pregnancy	Dr. Hugh Davis Dr. Roberto Santiso	May 8-11, 1980
<u>LATIN AMERICA</u>			
COLOMBIA	XII Colombian Obstetric and Gynecology Congress	Dr. Theodore Baramki Dr. Anibel Acosta Dr. Jack Weed	December 2-8, 1979
BRAZIL	Brazilian National Society for Human Reproduction	Dr. Ronald T. Burkman	December 4, 1979
CHILE	XVIII Chilean Congress of Obstetrics and Gynecology	Dr. Anibel Acosta	April 17-25, 1980
PARAGUAY	Paraguay Congress of Obstetrics and Gynecology	Dr. Anibel Acosta	May 6-8, 1980
ECUADOR	Ecuador Federation of Obstetrics and Gynecology	Dr. Francisco Pardo	July 23-26, 1980
DOMINICAN REPUBLIC	VI Latin American Congress of Obstetrics and Gynecology	Dr. Alberto Alvarado	February 7-10, 1980
<u>AFRICA</u>			
BENIN	IPPF Conference on Infertility	Mr. Wilbur Wallace	December 7, 1979
GHANA	Ghana Association of Obstetrics and Gynecology	Dr. G. Arqueta Dr. O.A. Ladipo	January 31, 1980
KENYA	Kenya Obstetrical and Gynaecological Society	Dr. Theodore M. King Dr. Ronald T. Burkman Dr. Leo Dunn Dr. Virgilio Oblepias Dr. Suporn Koetswang Dr. O.A. Ladipo Dr. M.F. Fathalla	February 28-29, 1980

(page 2)

TABLE XIII  
JHPIEGO PARTICIPATION IN INTERNATIONAL CONFERENCES AND MEETINGS

<u>COUNTRY</u>	<u>MEETING/CONFERENCE</u>	<u>JHPIEGO REPRESENTATIVES</u>	<u>DATES</u>
<u>AFRICA</u>			
TANZANIA	Postgraduate Seminar in Obstetrics and Gynecology (KCMC)	Dr. Samir El Sahwi Dr. Kevin Kearney Dr. Douglas Huber	May 23-31, 1980
<u>NEAR EAST</u>			
Egypt	7th Annual Meeting: Egyptian Fertility Care Society	Dr. Douglas Huber Dr. John Rock	June 25-28, 1980
<u>ASIA</u>			
India	1st Congress of Indian Association of Gynecologic Laparoscopists	Dr. Ronald T. Burkman Dr. John Rock	October 14-15, 1979
Japan	Federation of International Societies of Obstetrics and Gynecology	Dr. Ronald Magarick Dr. John Lesinski	October 23-31, 1979

During this reporting period, JHPIEGO also held one major regional meeting in order to provide orientation to regional consultants. The following is a more detailed description of this meeting.

#### JHPIEGO Regional Consultants Meeting

In January, 1980, JHPIEGO held a three-day conference in Tunis, Tunisia for regional consultants from Africa and the Near East. This meeting was attended by 15 consultants from seven countries, as well as officials of L'Office National Du Planning Familial et de la Population (O.N.P.F.P.). The purpose of the meeting was to provide an orientation for newly appointed consultants in field visit protocol and logistics, patient preparation and post-operative care, equipment installation and maintenance procedures with an emphasis on instruction of operating theater nurses and support staff, and to evaluate common problems experienced during field visits and recommend resolution. Tunis was chosen as the site for this meeting as it is a major JHPIEGO training site for physicians from Francophone Africa and Near Eastern countries which the consultants will be visiting. In addition to providing an orientation to the training program, it also provided consultants the opportunity to gain practical experience in the use of the laproscator. The program consisted of presentations by JHPIEGO staff and two expert consultants, audiovisual presentations, roundtable discussions, and demonstrations of equipment assembly and disassembly. During the last two days of the meeting, clinical observation and procedures were scheduled each morning at El Ariana Clinic, the practical training site of the Tunisian program. In addition, the maintenance manuals for the laproscator and major systems being developed by JHPIEGO were presented for review and comment.

Some of the recommendations made by the consultant participants are as follows: -

- 1) The length of a field visit in most circumstances, should be no less than three days for one trainee; four days for two trainees, at the same institution.
- 2) Patient selection is extremely important in the teaching situation. Patients should be thin, low risk patients.
- 3) Lectures to other medical and support staff of the host hospital are important components of a field visit; lectures should stress all uses of laparoscopy and include other topics of particular interest and relevance for the specific country, as well as broad reproductive health issues.
- 4) It is the responsibility of the consultant to thoroughly instruct support staff as well as the host physician in proper care and maintenance of the equipment at the time of the field visit.
- 5) National and Regional Maintenance Centers should continue to be established to expedite minor repairs and supply of spare parts.
- 6) Actual experience with 100 cases of laparoscopy, diagnostic or therapeutic, is probably the minimum criteria for designation as a consultant.

#### 5. Educational Resources

An increasingly important component of the JHPIEGO program is the development and provision of educational materials for use in both it's U.S. and in-country training programs. The deficiency of educational materials in developing countries has been repeatedly pointed out to JHPIEGO. It is considered to be of utmost importance that accurate materials be provided to all training centers, and physician and nurse participants in JHPIEGO programs.

JHPIEGO supports its educational programs by provision of educational resources utilizing several approaches. This includes:

- Distribution of educational packages to in-country training centers and trainees;
- Distribution of the three-volume teaching manual, Manual of Human Reproduction
- Development of new educational materials;
- Translation of material into foreign languages;
- Maintenance of a library for use by international training center course participants and JHPIEGO staff;
- Publication of the JHPIEGO newsletter; and
- Providing an exhibit for display at regional, national, and international meetings.

An overview of the educational components follow:

#### Educational Packages

Further development and increased distribution of educational packages took place during FY'80. These packages consist of pamphlets, films, and other teaching materials which aim to increase or improve the teaching of reproductive health in institutions, or improve the quality of service provided by an individual physician. Physicians' packages in English, French, and Spanish were expanded, and nurse packages in French and Spanish were identified.

A total of 1284 educational packages were shipped during the year. Of these, 769 were in English, 168 Spanish, and 347 in French.

#### Educational Center Materials

The director of the JHPIEGO educational center, in collaboration with JHPIEGO senior staff, has developed packets of educational materials which are provided to all course participants. These textbooks, slides, and other designated materials have been selected according to curriculum covered in the course and language of participant.

The educational resources provided by JHPIEGO are reviewed on a regular basis by an educational advisory committee. During this meeting, recommendations are also made as to new types of materials which should be developed, or existing materials that might be provided. The last meeting was held in August 1980.

#### The Manual of Human Reproduction

In 1978, JHPIEGO assumed responsibility for distribution of the three-volume teaching volume, Human Reproduction, edited by Dr. Howard C. Taylor. It is distributed to, and used by professors of obstetrics and gynecology, to assist them in preparing lectures on topics relating to reproductive health and fertility management. During FY'80, 45 copies of the teaching manual and accompanying slides were distributed to teaching institutions in the developing world.

Late in the year, a survey was conducted by Dr. Ronald Magarick of the JHPIEGO staff and Dr. Taylor in order to analyze the effectiveness of the Manual of Human Reproduction. One hundred questionnaires were returned from 100 heads of teaching departments, chiefly of obstetrics and gynecology, in developing countries. These represented 32 countries widely distributed throughout the developing countries of the world. The most significant finding was that more than 30,000 students, mainly of medicine and other health professions, were reached with the 100 manuals.

The questionnaire also pointed out that a new, revised manual is needed, and therefore steps were taken late in the year to seek funding for the second edition of this publication.

Results of this survey will be published in 1981 in the International Journal of Gynaecology and Obstetrics, in a paper, "An International System for the Education of Students of Medicine and Other Health Professionals in Human Reproduction".

JHPIEGO Films, Educational Materials, and Publications

During FY'79, JHPIEGO collaborated with George Washington University in the development and production of two training films, "Techniques of Laparoscopy", and "Laparoscopic Equipment Care". The first film emphasizes current technique and practice relative to the use of the laproscator for both diagnostic and therapeutic endoscopy. The second film emphasizes proper preventive care and maintenance of laparoscopic equipment. Both films are available in English, Spanish, French, and Portuguese.

Two-hundred and seventy-one films were distributed by JHPIEGO primarily to training centers and educational institutions in developing countries during the program year. The following indicates that the demand for the films were about equal, with the English and Spanish translations being the most widely distributed.

	<u>Techniques of Laparoscopy</u>	<u>Laprosopic Equipment Care</u>
English	57	57
Spanish	36	36
French	22	22
Portuguese	21	20
	<u>136</u>	<u>135</u>

Recent JHPIEGO equipment committee meetings, including the Tunisia meeting, as well as the Key Biscayne, Florida meeting, held in September 1979, both had as recommendations that JHPIEGO should develop manuals on maintenance of the laparoscope. In recognition of this, two equipment manuals were produced this year entitled, "Laprocator<sup>TM</sup>: Preventive Care and Maintenance", and "Advanced Laparoscopic Systems: Preventive Care and Maintenance". These manuals are to be provided to operating theatre personnel as a guide to preventive care and maintenance of laparoscopic equipment so as to ensure proper functioning and a longer lifespan of the equipment. Both manuals will be available in FY'81 in English, French, and Spanish.

Late in the fiscal year, plans were underway for the printing of the proceedings of the JHPIEGO Key Biscayne conference entitled, "Surgical Equipment and Training in Reproductive Health". This book represents the results of the deliberations and recommendations of conference participants.

In addition to the above publications, a number of JHPIEGO staff have been active in writing articles regarding JHPIEGO programs published in international and national journals, as well as in monograph form. Appendix B is a listing of some of the JHPIEGO publications and presentations, the majority of which have been published the last two years.

#### JHPIEGO Library

JHPIEGO maintains a reproductive health library which contains over 1000 books and journals, as well as extensive audio visual materials (audio cassettes, video cassettes, slides, and 16mm films). This library is used by International Training Center course participants and JHPIEGO staff as well as by JHPIEGO consultants and visitors.

#### JHPIEGO Newsletter

The JHPIEGO Newsletter continues to be an important communication tool for providing information on recent reproductive health advances to the JHPIEGO trained network of physicians. The Newsletter is published quarterly in English, French, and Spanish and is distributed to all JHPIEGO graduates as well as JHPIEGO friends with a total circulation of about 2,400 per issue.

#### JHPIEGO Exhibit

The JHPIEGO exhibit, which focuses on the basic theme of reproductive health, was displayed at two meetings this year.

In November 1979, the exhibit generated much attention at the meeting of the International Federation of Gynaecology and Obstetrics (FIGO) held in Tokyo. The exhibit also was displayed at the meeting of the National Council for International Health in Washington, D.C. in June 1980.

SECTION II

REVIEW OF COUNTRY ACTIVITIES

July 1, 1979 - September 30, 1980

## A. REGIONAL SUMMARIES

### Introduction

FY'80 was significant for JHPIEGO, highlighted by major implementation of its in-country educational strategy. Agreements were signed, and training was either begun or in the planning stages for programs in Morocco, Sudan, Turkey, Brazil, Egypt, Malaysia, Indonesia, India, and Pakistan. In some countries, more than one program was developed, as was the case in Brazil and Egypt. Furthermore, agreements JHPIEGO had previously entered into with institutions in Tunisia, Kenya, Nigeria, Thailand, the Philippines, and Colombia, were amended and training continued.

Late in this reporting period, the JHPIEGO Board of Trustees approved a new program to be conducted in Somalia, as well as a revised program for Colombia, whereas the grantee would be shifted from the Ministry of Health to PROFAMILIA.

Implementation of training centers in these major regions of the world, continues to demonstrate JHPIEGO's goal of developing a training network in countries overseas to meet the demand for reproductive health training. This rationale is based on the fact that during the past several years, a number of new clinical techniques in obstetrics, gynecology, and related disciplines have been developed whose application can have a powerful effect upon the reproductive well-being of individuals. A serious deterrent to the beneficial application of these advances is the gap which exists between medical knowledge and technology at the level of medical school faculty and curriculum in developing countries and that in the developed world. In some instances it may be caused by faulty organizational problems, or by faculty failure to recognize new knowledge, while in others it is a lack of facilities and equipment to apply new knowledge or a combination of all these. It is known that the widespread use of preventive measures, and the care and

treatment of reproductive health matters can make an important contribution to the overall well-being of families. To effectively reach the women and children, a sufficient number of obstetricians/gynecologists and other qualified personnel are needed in the developing countries who are capable of providing these health measures. This calls for the establishment of an international network of training centers for obstetrics and gynecology and other qualified professionals and for the ultimate institutionalization of training in the field of reproductive health in schools of medicine and other institutions so that the most recent information becomes available to physicians and their assistants through undergraduate study and continuing education.

It is JHPIEGO's philosophy that if women and their families are to receive the benefits of improved health measures, the basic medical information about these technical advances needs to be part of medical education and clinical practice. The mainstream of the obstetrical and gynecological profession must therefore be involved.

#### Theme of In-Country Programs

All JHPIEGO programs emphasize, as a goal, improvement of reproductive health of women and children. Preventive, as opposed to curative medicine, is the major emphasis of these programs. Stress is also placed on the "team" approach to health care, especially in relationship to surgical skills. In programs where laparoscopic equipment is provided, preventive maintenance is thoroughly discussed, and its importance underscored.

To carry out the objective of in-country project development, implementation, and monitoring, JHPIEGO staff and consultants visited 46 countries during this reporting period.

Table XIV provides a capsulized overview of in-country training activity in all JHPIEGO in-country programs during FY'80. Three hundred seventy-seven physicians received training, which is nearly triple the number of physicians who were trained in in-country programs during the previous year. In addition, six microsurgeons, 10 anesthetists, 173 nurses, and 19 additional physicians and nurses attended reproductive health update courses.

A more detailed review of activity of JHPIEGO in-country physician training from the program's inception is located in Table X.

With the continued development, growth and expansion of in-country programs, it is anticipated that the number of trainees will continue to grow in the years ahead.

The following are regional summaries of JHPIEGO activities in Africa, Asia, and Latin America.

TABLE XIV  
CAPSULE SUMMARY  
JHPIEGO PARTICIPANTS  
NATIONAL & REGIONAL PROGRAMS  
October 1, 1979 thru September 30, 1980

REGIONAL COUNTRY	PHYSICIAN COURSES <sup>a)</sup>			NURSES <sup>a)</sup> COURSES	UPDATE COURSES <sup>b)</sup>	
	CLINICIANS	MICROSURGEONS	ANESTHESIOLOGISTS		PHYSICIANS	NURSES
<u>AFRICA</u>						
Kenya: National	4	-	-	-	8	11
Regional	1	-	-	-	-	-
Nigeria: National	7	-	-	-	-	-
<u>LATIN AMERICA</u>						
Brazil: National	28	-	10	11	-	-
Colombia: National	70	4	-	61	-	-
Regional	2	2	-	2	-	-
<u>ASIA</u>						
India	27	-	-	27	-	-
Indonesia: National	-	-	-	17	-	-
Malaysia: National	14	-	-	14	-	-
*Pakistan: National	16	-	-	26	-	-
Philippines						
National	57**	-	-	-	-	-
Regional	1	-	-	-	-	-
Thailand: National	62	-	-	-	-	-
<u>NEAR EAST</u>						
Egypt: Al Azhar	10	-	-	-	-	-

(page 2)

TABLE XIV  
CAPSULE SUMMARY  
JHPIEGO PARTICIPANTS  
NATIONAL & REGIONAL PROGRAMS  
October 1, 1979 thru September 30, 1980

REGIONAL COUNTRY	PHYSICIAN COURSES <sup>a)</sup>			NURSES <sup>a)</sup> COURSES	UPDATE COURSES <sup>b)</sup>	
	CLINICIANS	MICROSURGEONS	ANESTHESIOLOGISTS		PHYSICIANS	NURSES
NEAR EAST (continued)						
Tunisia						
National	24	-	-	-	-	-
Regional	27	-	-	-	-	-
Turkey: National	27	-	-	15	-	-
TOTALS	377	6	10	173	8	11

a) Didactic and clinical training components. Includes physicians who attended clinical training only.  
Adjusted actual: 376 didactic trainees and 372 clinical trainees (Table XI).

\* UNFPA-funded

\*\* 11 physicians participated in refresher course.

## B. IN-COUNTRY EDUCATIONAL PROGRAMS

### AFRICA AND THE CARIBBEAN REGION

JHPIEGO activity continued to expand in Africa. Physicians from Burundi, Cape Verde Islands, Guinea Bissau, Malawi, Mauritania, and Mozambique were accepted for the first time for JHPIEGO-sponsored courses in the United States, Tunisia, and Kenya. Also, an obstetrician/gynecologist from Makerere University in Uganda attended a course in the United States, the first participant from that country since early 1976.

In Nigeria, the JHPIEGO in-country training program began this past July to acquaint Nigerian physicians to broad areas of reproductive health such as infertility and management of high risk pregnancy. Negotiations were also underway for the development of a laparoscopic equipment maintenance center in Lagos which would assume the responsibility for maintenance of all JHPIEGO laparoscopic equipment in Nigeria.

In Tunisia, the highly successfully endoscopy training course for Tunisian physicians and for physicians from other French-speaking African countries was in its third year. Moreover, a proposal for nurse training as a component of the Tunisian program was also developed, for training of nurses from both Tunisia and other Francophone African countries. JHPIEGO also assisted in Tunisia in development of a microsurgery center to provide reversibility services for those patients who require such procedures.

The JHPIEGO Kenyan program continued with four physicians attending a two-week didactic and clinical training seminar in female reproductive health, with particular emphasis on diagnostic and therapeutic endoscopy. In addition, a total of 19 physicians and nurses participated in a two-week post-graduate course in family planning and maternal and child health care. The course provided training in such areas of reproductive health as pelvic

examinations for cervical cancer, diagnosis and management of infertility, and family planning methods.

As discussed earlier, the JHPIEGO International Council hosted a five-day international conference in association with the Kenyan Obstetrical and Gynecological Society in March 1980. The conference addressed a wide range of obstetrics and gynecology and fertility management issues, including a presentation of health care in Kenya by a panel of Kenyan health officials, physicians, and scientists. JHPIEGO's role in international fertility management and reproductive health programs, was also discussed.

In Somalia, near the latter part of the fiscal year, a proposal was developed for a three-week course in family planning and reproductive health which would provide pragmatic training to physicians mainly working in rural areas, who did not have formalized training in obstetrics or gynecology. An additional component of this program is a two-week course for nursing school instructors to develop teaching skills and to introduce concepts of reproductive health.

In May 1980, more than 160 Tanzanian physicians attended a JHPIEGO-supported post-graduate seminar in obstetrics and gynecology at the Kilimanjaro Christian Medical Center. JHPIEGO also provided three speakers and will support the publication of 600 copies of the conference proceedings. Early in the next fiscal year, Dr. Michael Spence of the Department of Obstetrics and Gynecology of the Johns Hopkins University School of Medicine will participate in the annual meeting of the Tanzanian Obstetrical and Gynecological Society. During Dr. Spence's visit, discussions will be held regarding development of an in-country training program for hospital nurses working with physicians at regional hospitals. Also, consideration will be given to developing a proposal for training in the detection and prevention of

sexually transmitted diseases with the Muhimbili Hospital. The need for this has been identified in previous JHPIEGO consultant visits, since tubal occlusion, due to pelvic inflammatory disease, is a major contributing factor to the large infertility problem in Tanzania. The role of modern contraceptives in preventing STD will be incorporated in such a program.

In Morocco, an agreement was signed this year with the Ministry of Public Health in which a national center of reproductive health, endoscopy, and laparoscopy would be established at the Rabat Maternity Hospital. The major objective of this program is to train physicians, nurses, and technicians, both from Morocco and other Francophone African countries in endoscopy and reproductive health care. In addition, 50 Moroccan and regional nurses would also be trained in family planning skills as a separate component of the project. It is anticipated that this program would commence in FY'81.

The Minister of Health from Zimbabwe visited JHPIEGO this year, and as a result, considerations are being given to the training of physicians from this country.

Due to pressing internal problems, activities in Ghana were delayed. A trip was made, though, by the Regional Development Officer to discuss the possibility of developing a maintenance center proposal with the Police Hospital. Discussions are still underway concerning activities in this country.

In Jamaica, a clinical practice agreement was signed this year between JHPIEGO and the University of the West Indies. In Haiti, JHPIEGO has been of assistance to the Ministry of Health by equipping endoscopy centers in Port-au-Prince, Cape Haitian, and Les Cayes. Consideration will be given during the next year to supporting nurse training.

Despite certain existing policies in many of the African countries which do not permit implementation of active family planning programs, many governments and national medical teaching institutions have responded favorably to JHPIEGO training programs in reproductive health, including management of infertility. Reflecting this, JHPIEGO has trained physicians from 38 countries in Africa. It is anticipated that in the next program year, JHPIEGO activities on this continent will continue to grow.

The following is a brief overview of each JHPIEGO in-country program in the African region which has been implemented during this past year.

#### AFRICA In-Country Educational Programs

COUNTRY: Tunisia  
 PROJECT TITLE: Tunisian National Educational Program for  
 Obstetricians and Gynecologists  
 GRANTEE: ONPFP

In June 1978, a letter of agreement was signed with the Tunisian National Office for Family Planning and Population for this project. The objective was to provide didactic training followed by clinical practice in fertility management techniques, including laparoscopy for Tunisian and Francophone African obstetricians and gynecologists.

The sixth and final session under this letter of agreement was completed in February 1980. During that period, a total of 51 Tunisian doctors and 40 physicians from other Francophone African, Near Eastern, and Caribbean countries received training. The foreign countries represented were Benin, Cameroon, Chad, Comoro Islands, Gabon, Ivory Coast, Madagascar, Mali, Mauritius, Morocco, Nigeria, Rwanda, Senegal, Togo, Upper Volta, Zaire, Haiti, Cyprus, Syria, Turkey, and Yeman. In 1980, amendment number 1 to the original letter of agreement was executed to continue in-country reproductive health training under which 40 Tunisian and 40 regional obstetricians/gynecologists, and surgeons would receive training in diagnostic and therapeutic laparoscopic techniques with the ultimate goal of improving maternal and child health care in their countries, thereby reducing maternal mortality and morbidity.

As part of the above agreement, 34 Tunisian and 18 other Francophone African, Caribbean, and Near Eastern country nurses will be trained in assisting in endoscopy and laparoscopy and mini-laparotomy and in provision of preventive maintenance and care to surgical equipment.

Training sessions for physicians, attended by 12 Tunisian and 20 Francophone African physicians, were held in May and September of 1980.

The level of Tunisian participation fell short of the project goal because of difficulties in releasing potential Tunisian participants from their hospital duties to attend, particularly from rural areas. However, program officials have now promised a more concerted effort to select physicians well in advance of proposed courses to assure their release.

Information available on JHPIEGO-supplied equipment, indicates that as of September 1980, 39 laparoscopes/laprocators have been placed in Tunis and in each of the 18 health regions. Laparoscopes have also been provided to the three medical schools at the Universities of Tunis, Sousse, and Sfax.

In September 1980, JHPIEGO and ONPFP signed an agreement for clinical training of obstetricians, gynecologists, and surgeons who are qualified to learn laparoscopy, and who are recommended by JHPIEGO for clinical practice training at one of eight Tunisian government hospitals following completion of a JHPIEGO Clinicians, Administrators, or Management of Infertility course at the Johns Hopkins Hospital.

During the next fiscal year, it is anticipated that the agreement will be amended again in order to continue the physician and nurse training in reproductive health, and additional negotiations will be held between JHPIEGO and ONPFP for a nurse training program which will include IUD insertion for both Tunisian and regional nurses.

COUNTRY: Morocco  
 PROJECT TITLE: Moroccan National Educational Program in Reproductive Health, Endoscopy, and Laparoscopy  
 GRANTEE: Ministry of Public Health

An agreement between JHPIEGO and the Ministry of Public Health was signed in April 1980 to support the development of an in-country training program for obstetricians/gynecologists, surgeons, nurses, and nurse midwives in techniques relative to reproductive health. Trainees would come from other countries of Francophone Africa and the Middle East, as well as Morocco. This program would be conducted at the National Training Center in Reproductive Health in Rabat. Renovations to the hospital delayed implementation of the project. It was anticipated that during the first year of the project, four courses for physicians, a nurse trainer workshop, and 8 courses for nurses would be conducted. Plans now call for the nurse trainer workshop to be conducted in December 1981, with the additional training to be completed by the end of 1981.

COUNTRY: Kenya  
 PROJECT TITLE: Human Reproduction Training Center  
 GRANTEE: University of Nairobi/Kenyatta National Hospital

This program, aimed at improving maternal and child health and lowering Kenya's high rate of infant, childhood and maternal mortality, provides multi-level training to a broad spectrum of health care providers. The

agreement for this project was signed in April 1979, with the first course conducted for clinicians in August 1979. During this project year, four additional clinicians were trained and 19 nurses and physicians participated in an update course in reproductive health. An international conference on reproductive health was also held in March 1980, which the JHPIEGO International Council participated in.

Future plans call for training 20 additional physicians and nurses in an update course in reproductive health, training a minimum of 12 additional physicians in endoscopy, and to conduct another International Reproductive Health seminar in February 1981. Considerations are also being given for conducting a maintenance workshop on laparoscopic equipment, and for development of a proposal which would provide training in reproductive health and mini-laparotomy for physicians and related personnel in each of the 50 district hospitals throughout Kenya.

COUNTRY: Nigeria  
 PROJECT TITLE: University of Ibadan Endoscopic Training Project  
 GRANTEE: University of Ibadan

The objective of this project is to improve the reproductive health of Nigerian women, through the training of physicians in diagnostic and therapeutic endoscopy. The first course was conducted in August 1980, attended by 7 physicians. It is anticipated that the second course will be held in January 1981, and that by the end of the next fiscal year, 24 Nigerian physicians would be trained in endoscopy and reproductive health care.

Also during this reporting period, a proposal was developed with the Femope Marketing Company in Lagos, in order to establish a maintenance center for all JHPIEGO laparoscopic equipment in Nigeria. It is anticipated that this center will become active early in 1981. Additionally, a JHPIEGO Regional Development Officer will visit Ibadan early in the year, to discuss a possible training program at that institution in the diagnosis, treatment, and prevention of sexually transmitted diseases.

#### Project Under Development

COUNTRY: Somalia  
 PROJECT TITLE: Somalian Reproductive Health Program  
 GRANTEE: Benadir Hospital

A proposal, submitted by the Benadir Hospital in May 1980 was approved by the JHPIEGO Board. The Benadir Hospital, in collaboration with the Ministry of Health and Ministry of Higher Education, Mogadishu, proposes to provide pragmatic training in high risk pregnancy, infertility, gynecologic infection, child spacing, and pediatrics to 80 primary health care physicians from rural areas during the initial one year period. The course is designed to be conducted over a three-week period, four times a year, and will include didactic lectures, clinical management seminars, and clinical tutorials. In addition, a nurse update seminar will be conducted to update nursing instructors from the two Somalian nursing schools (Hargesia, and Mogadishu) in reproductive health and teaching methodology. The agreement for this

project will be signed in November 1980, and the first physicians course will be conducted in December 1980.

### ASIAN REGION

Growth and expansion of the JHPIEGO in-country projects in Asia continued. Agreements were signed for two programs in Egypt, as well as for programs in the Sudan, Turkey, Malaysia, and Indonesia. In addition, the agreement for the JHPIEGO/Pakistan project was finalized, with funding provided by the United Nations Fund for Population Activities. Also, the JHPIEGO agreements in Thailand and The Philippines were amended, and programs continued.

In addition, 10 clinical practice agreements were operating in this region (Table XII). These 10 clinical practice centers in Asia greatly expand the JHPIEGO capacity for clinical training.

Regarding equipment maintenance, activities of the center in the Philippines continued. Furthermore, agreements were signed for maintenance centers in Malaysia and The Sudan, with functioning anticipated in FY'81.

To assist in mobilizing the maintenance centers, technicians from centers including those in The Sudan, Malaysia, and Turkey received training in the United States in equipment maintenance and repair. On-site training was provided for the Philippines technician. A summary of other activities which occurred in Asia during this reporting period follows.

In October 1979, in India, the JHPIEGO Director participated in the first National Congress on Endoscopy where he spoke on "The Johns Hopkins Experience with The Techniques of Laparoscopic Sterilization". Two recently completed JHPIEGO films were shown at this meeting, one on The Techniques of Laparoscopy, and a second on The Maintenance of Laparoscopic Equipment. During this visit, discussions were held by the JHPIEGO Director with

officials of India's Ministry of Family Welfare, regarding that organization's three-year endoscopy training program. The program's objective is to provide assistance in training physicians in diagnostic and therapeutic laparoscopic techniques for India's 300 medical schools and other major teaching hospitals. JHPIEGO is providing surgical equipment to the Ministry of Family Welfare for this program. This year, 27 Indian physicians and 27 nurses received training as a result of the JHPIEGO/Ministry of Health and Family Welfare initiative. Visitors to JHPIEGO from India included Ms. Serla Grewal, Additional Secretary for Family Welfare.

In Bangladesh, the proposed JHPIEGO endoscopic training program was not implemented, pending further negotiations with the USAID Mission in Dacca and the proposed Project Director, Dr. T.A. Chowdhury. In Nepal, a JHPIEGO consultant conducted a field visit during the year, and identified a number of obstetricians/gynecologists who will participate in JHPIEGO courses in the United States. During the next fiscal year, the JHPIEGO Regional Development Officer is expected to visit Nepal to assess the feasibility of a nurse training program.

From Burma, JHPIEGO received four physicians who participated in its U.S. courses. This was the first time in 10 years that there had been any participation in any AID-sponsored program, and JHPIEGO personnel were pleased by the opportunity to work with physicians from this country. Those attending courses received clinical practice training in The Philippines. Installation of laproscators and field visits are pending, as JHPIEGO is awaiting government approval for the visits, which is anticipated during FY'81.

Trainees from New Guinea and from the Solomon Islands participated in JHPIEGO training programs. This year two physicians from Papua New Guinea

attended a U.S. course, were field visited, and received laproscopists. A site visit is planned to this country in early 1981 by the Regional Development Officer to explore the possibility of in-country training for nurses. The physician from the Solomon Islands participated in the JHPIEGO program in The Philippines.

While the Sri Lankan Minister of Health, Dr. G. Jaya Surya visited JHPIEGO this past year, and there was hope that the JHPIEGO in-country project in that country would be implemented, further delays were experienced in Sri Lanka due to construction of operating room facilities which must be completed before clinical activity can begin. In addition, a hold on U.S. intermediary activities was instituted by the AID mission.

Among the many recent visitors to JHPIEGO, have been members of various Chinese study missions on the organization and management of higher medical education. During these visits, interest was expressed by Deans of a number of the Chinese medical schools to further the collaboration between JHPIEGO, and their institutions. The JHPIEGO Director was extended an invitation to visit China for the purpose of developing a working relationship with various institutions in that country, and this trip is planned for December 1980.

The following is a brief overview of each JHPIEGO program in the Asian region, which has been implemented during the past year.

#### ASIA In-Country Educational Programs

COUNTRY:	Indonesia
PROJECT TITLE:	Course in Human Reproduction for Paramedics
GRANTEE:	Department of Obstetrics and Gynecology, University of Indonesia

This project for the training of nurses was finalized and the agreement signed this past year. The purpose of the project was to train trainers in reproductive health care and educational methodology. A three-week course, attended by 17 participants from Indonesia's maternal and child health care centers, participated in the course, held at the Faden Saleh Clinic in Jakarta in August. JHPIEGO educational methodology specialist, Dr. Flora Roebuck, provided consultation for the course, which proved to be highly successful,

resulting in requests for additional programs by the Indonesians. It is anticipated that proposals for another nurse training program, as well as a seminar on infertility will be finalized during the next fiscal year.

COUNTRY: Egypt  
 PROJECT TITLE: Reproductive Health Training Center  
 GRANTEE: The International Islamic Center for Population Studies and Research

This three-year regional program, conducted under the auspices of the Al Azhar University, is expected to train 30 Egyptian physicians and 10 physicians from other African countries in therapeutic and diagnostic endoscopy. The agreement was signed and training commenced in June, with the conducting of the first didactic course attended by ten physicians. Thereafter, trainees will receive clinical practice at one of JHPIEGO's four clinical practice center throughout Egypt. During FY'81, it is expected that three additional courses will be conducted, and that an agreement for the continuation of the program for the second year will be finalized.

COUNTRY: Egypt  
 PROJECT TITLE: Human Reproduction Training Center  
 GRANTEE: Department of Obstetrics and Gynecology, Shatby University Hospital, Alexandria University

The agreement for this project was also finalized this past fiscal year. Components of the project include providing didactic and clinical training in female reproductive health, with an emphasis on diagnostic and therapeutic laparoscopy, to 30 Egyptian and 10 non-Egyptian physicians through five courses of three weeks duration. Equipment would be provided to the institutions of successful trainees. In addition, five one-week courses would be conducted for a total of 40 Egyptian and non-Egyptian nurses to update their knowledge in reproductive health, as well as on proper care and maintenance of laparoscopic equipment. Additionally, one five-day international conference dealing with different aspects of reproductive health would be held during the program year. It was anticipated that the initial physicians and nursing courses would be held in November 1980.

COUNTRY: India  
 PROJECT TITLE: National Endoscopic Training Program for India  
 GRANTEE: Ministry of Health and Family Welfare

This training program, developed over a two-year period, is to provide endoscopic training to physician/nurse and technician teams from all the 109 Indian medical schools and approximately 300 major provincial hospitals in that country.

JHPIEGO's support consists of consultation, laparoscopic equipment and spare parts. This program represents the only major educational effort of its type by an AID intermediary in India. Initial efforts have led to the training of 27 teams from medical schools across India.

Distribution of equipment and further training, however, has been put on hold until the resolution of certain technical issues among AID, JHPIEGO, and the Ministry of Health and Family Welfare.

Initial training efforts are being conducted at medical schools located in Baroda, Bombay, and New Delhi, with plans for training centers to be eventually located in every state of India.

In addition, a system for equipment distribution and repair is under development.

COUNTRY: Malaysia  
 PROJECT TITLE: Malaysia Reproductive Health and Endoscopic Training Program for Physicians and Nurses  
 GRANTEE: National Family Planning Board

This agreement was finalized and signed this year with the Government of Malaysia/National Family Planning Board. The project grew out of the need to provide post-graduate training in reproductive health and endoscopy to physicians and nurses in Malaysia who staff rural district hospitals and outpatient family planning facilities of the National Family Planning Board and the Federation of Family Planning Associations. The first didactic course was conducted in August 1980, and was attended by 28 physicians and nurses. Dr. Neil Rosenshein, JHPIEGO consultant from the Department of Obstetrics and Gynecology, Johns Hopkins University School of Medicine, participated in the program. Clinical practice training of physicians who attended the didactic sessions was being conducted in The Philippines or Korea.

In addition to the above activities, JHPIEGO assisted in the establishment of an equipment maintenance center in Kuala Lumpur. The maintenance technician for this center was trained in the United States. Additionally, a central microsurgery facility providing surgical reversibility services has been established under the National Family Planning Board following the training of Dr. Hamid Arshat at the Johns Hopkins Hospital.

COUNTRY: Pakistan  
 PROJECT TITLE: National Endoscopy, Surgical Contraception, and Reproductive Health Program  
 GRANTEE: Ministry of Health

The JHPIEGO/Pakistan program is funded by the United Nations Fund for Population Activities (UNFPA). The goal of the program over approximately three-year period is to train a total of 800 physicians and 800 nurses in 17 training centers throughout the country.

Training is being conducted in short one and two-week courses at selected hospitals. Personnel trained in the program will serve in hospitals and health centers throughout the country. Curriculum content includes didactic and practical training in diagnostic and therapeutic endoscopy, minilaparotomy, equipment care, patient education, maternal and child health, infertility, and other reproductive health topics. During the past fiscal

year, 16 physicians attended training programs, and steps were underway to complete their clinical training. In addition, 26 nurses received training in techniques of surgical asepsis, principles of minilaparotomy and maintenance of laparoscopic equipment. The course also addressed infant and child care, contraceptive technology, and delivery of community health services. In addition to the above activities, JHPIEGO has also provided assistance for the development of a maintenance center in order to service the approximately 160 laparoscopes (most of which were provided by AID) and 54 laproscators provided under the current UNFPA project.

During the next phase of the project, training focus will shift to minilaparotomy, and reproductive health. The Government of Pakistan, together with JHPIEGO and the UNFPA, will determine the 1981-82 level of training activity. A tri-partite review meeting is scheduled for January 1981 in Islamabad.

COUNTRY:                   The Philippines  
 PROJECT TITLE:           Philippines Endoscopy Training Program  
 GRANTEE:                   Mary Johnston Hospital

The Philippines program was established to meet a number of objectives. These included training Philippine and regional physicians in techniques of therapeutic endoscopy, to establish, equip, and operate a repair and maintenance center for donated endoscopy equipment, and to establish and maintain a system for identifying, collecting, and redistributing previously donated laparoscopes in need of repair. The training consisted of one-month courses for physicians who had no experience in laparoscopy, and a two-week refresher course for physicians with laparoscopic experience. The institutions with inactive scopes were invited to send trainees to the Fertility Care Center at the Mary Johnston Hospital. During the past year, 58 physicians attended training courses at the Mary Johnston Hospital, including one regional physicians from the Solomon Islands. This marked the first time that a participant from the Solomon Islands had attended a JHPIEGO program.

The maintenance center which had been established at the Mary Johnston Hospital during the past fiscal year continued to operate successfully. The center has repaired and serviced 43 laparoscopes and allied surgical equipment. Twenty-nine machines have been re-distributed, and 14 are awaiting assignment.

There were three JHPIEGO consultant visits to the program during the year, and Dr. Oblepias, Director of the Project, visited Nepal to train Nepalese in the use of laproscators.

The Philippines agreement has been amended a number of times this year to extend the date of the agreement, as well as add additional funds to the project as certain inflationary costs were identified. In the coming year, a renewal proposal with the Mary Johnston Hospital will be finalized. In addition, two physicians from The Philippines will attend the JHPIEGO microsurgical course in order to serve as a cayalyst for the development of a microsurgical center at the University of The Philippines. Also, the University of The Philippines is currently considering development of a reproductive health education program proposal to be submitted to JHPIEGO for funding.

COUNTRY: Sudan  
 PROJECT TITLE: Continuing Education in Reproductive Health for  
 Medical Officers  
 GRANTEE: Ministry of Health

The purpose of this project is to provide information in maternal and child health care, family planning, and primary health care, to approximately 75 Sudanese physicians working in rural health centers. Another major program objective is assisting the Government of Sudan in institutionalizing a system of continuing education in reproductive health within the Ministry of Health. In addition, under a separate agreement, a maintenance center will be developed at the Medical Stores/MOH, which will assume responsibility for maintenance and repair of all donated laparoscopic equipment in that country. The agreements for both of the above programs were signed in April 1980, and the JHPIEGO Regional Development Officer visited Khartoum in July for purposes of consultation and implementation of the program. In November 1980, a trainer workshop will be held in order to develop a curriculum for the continuing education project, as well as a workshop on maintenance of laparoscopic equipment. It is anticipated by early 1981 the first continuing education program would be conducted.

COUNTRY: Thailand  
 PROJECT TITLE: Thailand National Endoscopy Educational Research  
 Program  
 GRANTEE: Ministry of Public Health

The purpose of this project is to train physicians from provincial hospitals in performing therapeutic endoscopy, as well as in assessing the effectiveness, safety, and acceptability of female sterilization by the laproscator technique. The agreement for this program was signed late in the previous fiscal year. The first didactic session was held in January in Bangkok. Dr. Ronald T. Burkman, JHPIEGO Director was the keynote speaker at this session. A total of 50 physicians and 12 residents attended this course. The four-day program included sessions on the use of laparoscopy, laparoscopic technique, anesthesia, tubal sterilization procedures, diagnostic laparoscopy, care and maintenance of equipment and other related subjects. During the year, clinical practice training and field visits of those who attended the didactic program continued. To fulfill the terms of this project, during the next fiscal year, a two-day conference will be held at the Siriraj Hospital, for all physicians who have been trained in order to review the status of the laparoscopic program, including the number of laparoscopies performed, complications, and how well the laproscators have functioned. Additionally, a continuation proposal for year two will also be finalized during FY'81.

COUNTRY: Turkey  
 PROJECT TITLE: Turkish National Endoscopy Program for Obstetricians  
 and Gynecologists  
 GRANTEE: Ministry of Health

An agreement was signed in early April to inaugurate an endoscopy training program in Turkey which will train 375 physicians, operating room

nurses, nurse trainers and technicians over the next three years.

Under the supervision of the General Directorate of Population Planning of the Turkish Ministry of Health, 120 gynecologists are to be trained in diagnostic and therapeutic laparoscopy, and reproductive health. In addition, 15 nurse trainers are to be given instruction in a two-week workshop and 240 operating room nurses will receive training to develop the skills needed to assist physicians providing endoscopy; training and to maintain equipment. The trained personnel will increase the effectiveness and efficiency of the delivery of family planning services within the country's health infrastructure.

The course for nurse trainers was held in August 1980, attended by 15 nurses. Ms. Connie Husman, Program Development Officer, participated in this course. In September, JHPIEGO President, Dr. Theodore M. King, and Dr. Francis Grumbine, of the Department of Obstetrics and Gynecology of the Johns Hopkins University School of Medicine, served as consultants for the first physicians course attended by 27 physicians.

Prior to initiating the in-country program, JHPIEGO sent equipment, plus a team of laparoscopists to Turkey in late Spring to install equipment at five clinical practice centers (two in Ankara and one each in Izmir, Istanbul, and Eskisehir). Two Turkish technicians were on hand for the field visits, and received two weeks of training in the U.S. in late June. Their training dealt with the repair and maintenance of laparoscopic equipment to prepare them for assisting in the equipment training aspects of the September course. Additionally, as mentioned in other parts of this report, in support of this major in-country training effort, JHPIEGO organized and conducted a special course for Turkish administrators which was conducted at the JHPIEGO educational center at Johns Hopkins in March 1980. This was the first JHPIEGO course to be given in Turkish.

Continued implementation of the above in-country training program is planned during the next fiscal year.

#### LATIN AMERICAN REGION

The Latin American region was responsible for the planning, development, coordination, and implementation of activities in 15 Latin American countries, plus Spain and Portugal during FY'80. A total of 104 trainees from the Latin American region were identified, recruited, and processed during the year via the Latin American office to attend either a U.S.-based or in-country course.

There were 16 clinical practice centers in the Latin American region active during FY'80 in support of both in-country and Johns Hopkins Training

Programs. There were a total of 208 surgical trainees, 10 anesthesia trainees, and 78 nursing trainees programmed through these centers during the year.

Agreements to renew and formalize collaborative educational activities were concluded with 11 clinical practice centers during FY'80 in the Latin American region. Proposals were developed for the mobilization of 10 new clinical practice centers in Brazil, which will greatly increase training capability in that high priority country.

The following is a brief status review of activities which occurred in this region during the reporting period.

In Argentina, one physician was trained and a site visit was conducted by a JHPIEGO consultant for the purpose of installation of equipment. In Bolivia, one physician was trained under the auspices of the Noyes Foundation grant. Limited additional training is planned for FY'81 due to governmental constraints. In April 1980, Dr. Anibal Acosta, a JHPIEGO consultant from Chile, provided a lecture on in vitro fertilization at the Eastern University of Chile. During FY'81, it is expected that a REHEP program will be activated at the Hospital Salvador, in Santiago.

In Costa Rica, JHPIEGO sponsored the formation of a laparoscopic equipment maintenance center under the medical equipment section of the Caja Costarricense de Seguro Social. Inventory systems were developed, preventive maintenance schedules implemented, and maintenance storage and workshop facilities activated. Continued support of the maintenance center is planned in the next fiscal year.

In Ecuador, a JHPIEGO consultant, Dr. Francisco Pardo of the Javeriana University, Bogota, Colombia, participated in the national obstetrical and gynecological meeting held in Guayaquil. Also, the Pan American Health

Organization procured, shipped, and installed four laparoscopic systems during FY'80, the actions of which were stimulated by JHPIEGO. During the coming year, a REHEP program for medical and nursing students may be mobilized at the Obstetrics and Gynecology Hospital in Guayaquil at the request of Dr. Luis Torres.

In Honduras, limited training support is being considered in view of active in-country capabilities. JHPIEGO is planning with ACHONPLAFA (The Honduran IPPF affiliate) to activate a clinical practice center for JHPIEGO-trained physicians.

During FY'80, Mexico was visited three times by JHPIEGO staff. The first was by Dr. Ronald Burkman, JHPIEGO Director, who attended an obstetrical and gynecological conference in Guadalajara. The second visit was a joint visit to Mexico City by Drs. Ronald Burkman and Ronald Magarick (JHPIEGO Program Support Division) for program development purposes. The third visit was by Dr. Ronald Magarick to Mexico City in August of 1980 to further develop a proposal with Profam for the sponsorship of a series of seminars on family planning in order to motivate physicians, primarily in the private sector, to become more active in family planning.

During the next fiscal year, Profam seminars in Mexico City, Guadalajara, and Monterrey will be conducted. Mobilization of additional in-country training centers by the Ministry of Health and ISSSTE are also planned. Also, at the request of the Ministry of Health, the March JHPIEGO Spanish Clinicians course will primarily be composed of Mexican physicians from that organization, who will in turn serve as a cadre of trainers upon their return to Mexico to further mobilize SSA surgical centers throughout the country.

Major in-country training efforts continued in Colombia under the sponsorship of the Ministry of Health, and a program was activated with the

Centro de Pesquisa e Assistencia Integrada a Mulher e a Crainca (CPAIMC) in Rio de Janeiro, Brazil. These programs train surgeons, and anesthesia and nursing personnel in endoscopy and surgical techniques of fertility management. They will be further described later in this section.

In Paraguay, development of a Reproductive Health Education Program is in process at the National Maternity Hospital, which is headed by Dr. Miguel Ruoti, Chief of Obstetrics and Gynecology (JHPIEGO fellow 1974)., Similarly, a Reproductive Health Education Program is being considered for Peru, as well as mobilization of their maintenance center during FY'81.

In El Salvador, continued support of the Ministry of Health maintenance center functions is also anticipated during the coming year. It should be pointed out that JHPIEGO was also active in Panama, Portugal, Spain, and Uruguay during the past year, and small numbers of trainees, as noted by Table IX, attended JHPIEGO programs from each of these countries. No major in-country initiatives, though, are planned in the coming year.

Via both in-country and Johns Hopkins training efforts, a total of 284 trainees were processed, representing a substantial proportion of the total JHPIEGO accomplishment in reproductive health education and training during the year.

#### Reproductive Health Education Program

In addition to major surgical training activities in Brazil and Colombia, the Latin American region of JHPIEGO developed and initiated the innovative Reproductive Health Education Program strategy.

This program expands the existing medical school curriculum in reproductive health to include a minimum of 120 hours of theoretical and practical exercises in the field, with tuition-based support and assistance from JHPIEGO for curriculum development, educational materials, and models.

This program introduces 40 hours of didactic presentation, 40 hours of clinical management seminars, and 40 hours of clinical tutorial experience for medical and nursing students in reproductive health. A second purpose of the program is to stimulate the involvement of key leadership medical institutions in developing linked educational and clinical service functions in the field of reproductive health.

The program described became operational in September, 1980 at the University of Santa Maria, Rio Grande do Sul, Brazil. Proposals are in process to implement the REHEP model at other key medical institutions in Brazil, Colombia, Paraguay, Peru, Ecuador and Chile at this time.

The following is a brief overview of each JHPIEGO in-country program in the Latin American region, which has been implemented during the past year.

#### LATIN AMERICA In-Country Educational Programs

COUNTRY: Brazil  
 PROJECT TITLE: Brazilian Family Planning Training and Development Center  
 GRANTEE: CPAIMC

The purpose of this project is to train physicians and auxiliary health personnel in modern techniques of endoscopy and other fertility management modalities in order to enhance the delivery of reproductive health care services within Brazil. This past fiscal year, 28 surgical trainees, 10 anesthesia trainees, and 11 nursing trainees participated in CPAIMC courses. This surpassed CPAIMC's initially proposed objectives for the year which was to (1) provide didactic and clinical practice for 27 physicians, 9 nurses and 9 anesthesiologists; (2) provide field visit training for 25 institutions, representing the 27 physicians trained; (3) establish and manage equipment maintenance activities; and (4) assist with the establishment of in-country clinical training centers. In accomplishment of this last objective, 10 clinical practice centers were developed for Johns Hopkins and CPAIMC programs.

During the coming year, CPAIMC will utilize the 10 existing clinical practice centers in training of approximately 36 additional physicians. In addition, 18 anesthesiologists and 18 nurses will also receive training. Four additional REHEP programs are also projected for this country.

In addition to in-country training, 41 Brazilians participated in courses at Johns Hopkins during the year. JHPIEGO staff visitors to Brazil included Drs. Ronald Burkman and John Lesinski, who participated in the Brazilian Human Reproduction Society meetings in Londrina, Mr. Kevin Armstrong, for program development and review, Ms. Laura Altobelli for curriculum and nursing development purposes, and Mr. Dale J. Clapper for review of maintenance activities.

COUNTRY: Brazil  
 PROJECT TITLE: Santa Maria Reproductive Health Education Program  
 GRANTEE: Santa Maria Institute of Reproductive Health

This project, as pointed out earlier, is to support the institutional development of reproductive health education at the University of Santa Maria. To meet this objective, medical students, residents, and pre- and post-graduate nursing personnel will be trained to fulfill an expanded role in the provision of maternal and child health, family planning and preventive gynecological services through a structured program of didactic lectures, clinical management seminars, and clinical practice tutorials. The agreement for this program was signed in August 1980, and it was anticipated that 110 students would attend the first course beginning the Fall of 1980.

COUNTRY: Colombia  
 PROJECT TITLE: National Program of Pelvic Endoscopy and Surgical Techniques  
 GRANTEE: Ministry of Health

Through the Colombian National Program, JHPIEGO accomplished training of surgical and nursing candidates to complete the mobilization of 108 Ministry of Health institutions. The Ministry recruited, selected, supervised, and deployed, the candidates. With the assistance of Profamilia's eight clinical practice centers, all training was accomplished by the administration of six-day tutorial clinical-didactic sessions. It should be pointed out that Profamilia has been receiving support from Johns Hopkins since 1973, and is operating at a level of over 40,000 minilaparotomy and endoscopy procedures per year at the present time, providing ample training opportunities for both JHPIEGO central, in-country, and third country program trainees. The Colombian National Program was the largest JHPIEGO in-country training program in the world operational in FY'80.

In addition to the successful in-country program, maintenance support activities increased to provide coverage nationally through the Ministry of Health. Seven maintenance technicians were trained in in-country programs through the joint cooperation of JHPIEGO and the Ministry of Health. Both Mr. Dale Clapper of JHPIEGO and Mr. Rivera, a Salvadorian MOH maintenance center technician, provided didactic and tutorial assistance in strengthening the Colombian maintenance program on-site in April of 1980.

In addition to the above training, the first Latin American course in microsurgery was conducted in Bogota, Colombia in February 1980 with JHPIEGO, the Ministry of Health, and The Military Hospital coordination and assistance. JHPIEGO faculty who participated in the two-week course, which consisted of didactic and laboratory instruction, including practical

sessions in tubal reanastomosis, consisted of Drs. John Rock and Rene Genedry. Trainees included four Colombians, one Peruvian and one Brazilian.

Projected for FY'81 is further training to support the mobilization of 20 institutions collaborating with the Ministry of Health and training to support mini-laparotomy capability in 100 secondary Ministry institutions. To accomplish this activity, 120 physician-nursing teams will receive training in Profamilia centers nearest to selected institutional candidates. In addition, the second Latin American microsurgery course will be held in Bogota in February 1981.

Near the end of this fiscal year, a decision was made to change the grantee for this program from the Ministry of Health to Profamilia, and negotiations were underway to develop this agreement.

Additional visitors to Colombia during the year for purposes of programmatic evaluation, and review, included Dr. Hugh Davis, Head, Latin Regional Office, and Mr. Kevin Armstrong of that office. Ms. Laura Altobelli also visited Colombia for purposes of assessing nurse training as well as for curriculum development purposes.

SECTION III

SUMMARY OF MAJOR POLICY OR OPERATING CHANGES

July 1, 1979 - September 30, 1980

## A. ORGANIZATION

Activity continued during the year to increasingly strengthen the administrative structure of JHPIEGO in order to meet the challenging demands of operating an Educational program where the large proportion of training is conducted overseas. The following is an overview of policy or operating changes which occurred in Fy 80.

Initially, it should be pointed out that the subgrants that JHPIEGO had entered into with the Washington University in St. Louis, and the Johns Hopkins University School of Medicine were allowed to terminate on September 30, 1979. This decision was based on the determination of JHPIEGO to expand in-country training in order to meet the increasing demand for trained medical personnel overseas.

In recognition of the fact of the continued need for a U.S.-based training center, where key obstetricians/gynecologists and other health personnel from developing countries could be trained, a tuition agreement was developed and implemented beginning October 1, 1979 between the Johns Hopkins University School of Medicine and JHPIEGO, for faculty and related training support of JHPIEGO educational programs conducted at Johns Hopkins.

As part of this reorganization, an education division was formed within JHPIEGO which assumed the responsibility for the coordination of the trainees and the courses. The coordinating personnel previously employed by the Department of Gynecology and Obstetrics of the Johns Hopkins University were made a separate direct unit of the JHPIEGO Corporation in order to form this education division.

Additional program staff were also added during the year to reflect the changing program emphasis. As noted elsewhere, the International Nurse

Education Program (INEP) was terminated at the end of the previous fiscal year. Nurses formerly employed in the INEP program were assigned to JHPIEGO regional development offices to coordinate and develop the nurse training programs described in Section I. Additionally, a Regional Development Officer was added to the staff to assist with coordination of programs in English-speaking Africa, as well as monitoring of the JHPIEGO UNFPA Pakistan grant. Recognizing the expansion of JHPIEGO program activities in Latin America, and especially the increased initiatives in Brazil, an Assistant Regional Development Officer was added for that region.

With respect to JHPIEGO operating units, the travel function which early in the year had been the responsibility of the Operations Support Division, was transferred to the Program Support Division. This decision was made to increase the efficiency of the travel operation by placing it within the same unit responsible for arranging most JHPIEGO field visits, as well as the recruitment and admission of candidates for courses. The Travel Office was thereafter relocated from the 3rd floor to the 8th floor of Hampton House. Early in the year, the Travel Office assumed responsibility for arranging trainee travel.

Additionally, a Grants Unit was formed composed mainly of staff previously assigned to the Operations Support Unit. This step was taken to ensure the development of systems to adequately monitor in-country programs, and tuition and clinical practice agreements. Also, the subgrant for the JHPIEGO History and Evaluation Unit with the Department of Behavioral Sciences of the Johns Hopkins University School of Hygiene was terminated. In its place, the majority of personnel previously employed by the School of Hygiene, were hired by JHPIEGO to continue History and Evaluation functions.

In further recognition of the changing program focus, and the fact that the number of JHPIEGO trainees would be growing at an exponential rate with the increase of in-country education centers, JHPIEGO management felt it imperative that the system for maintaining and recording data be modernized. A number of consultations were held by senior staff members with persons knowledgeable in the computer field, in order to identify the equipment which would meet current and projected JHPIEGO needs. Late in the year, it was decided that a Xerox 860 information processing system would be purchased. This system will collect and record data on an on-going basis, and will provide useful management information for project monitoring, and program planning in a fashion easily retrievable and available on a regular basis as well as on an "as needed" basis. It is also expected to gradually replace the existing JHPIEGO manual record keeping and reporting system.

Benefits include:

1. Improved efficiency in records storage and report preparation to meet regular and ad hoc reporting requirements;
2. Availability of management information for fiscal and program monitoring and planning in a timely and useful way;
3. More efficient use of personnel time; and
4. More effective storage of information with more efficient access to records for use by all units of the corporation requiring such information. Three staff were selected for training in use of the Xerox 860 and it was anticipated that early in the next fiscal year, there would be an increased capability for obtaining management reports based on this Information System.

### Cooperative Agreement Signed

As pointed out in the first section of this report, perhaps the most important event which occurred during the year was the formal signing with the Agency for International Development (AID) on September 1, 1980, of a cooperative agreement for continued support of the JHPIEGO program for a minimum of two additional years. This agreement outlined in general terms the various programs and mutual responsibilities of AID and JHPIEGO in promoting reproductive health care training throughout the world.

The financial assistance provided by AID allows the JHPIEGO Corporation to serve as an intermediary for the purpose of upgrading knowledge, skills, and technology of obstetricians and gynecologists and other qualified health personnel in developing countries to advance within these countries the diffusion and critical evaluation of new reproductive health methods as they develop in order to incorporate these techniques into medical education and every day practice.

### B. FUNDING INITIATIVES

As described in the FY'79 annual report, JHPIEGO was able to obtain funds from the Jessie Smith Noyes Foundation in New York and from the United Nations Fund for Population Activities for program activities not supported by existing AID monies.

The Noyes Foundation support continued to be a very important element in JHPIEGO's capability to respond to requests from physicians in developing countries where AID funds cannot be utilized. This year, utilizing the Noyes funding, physicians were trained from Bolivia and Mozambique. The participation of the physicians from Mozambique marked the first time that JHPIEGO had ever trained personnel from this country.

JHPIEGO was awarded a grant in excess of \$400,000 last year from the UNFPA in order to initiate reproductive health training activities in Pakistan. This program was implemented, as pointed out in Section I, during this program year.

C. EDUCATIONAL PROGRAMS

A decision was made during the year to increase class size from 18 to 25 for most educational programs conducted at Johns Hopkins. This decision was reached since the Hopkins Educational Center was the only U.S. based training center. Additionally, a concerted effort was made by Regional Development Officers, and the Grants and Resource Management offices of JHPIEGO to develop tuition agreements with all JHPIEGO clinical practice centers where feasible. These agreements allow for provision of a tuition payment, which included subsistence of the trainee while in training, and thereby improved the efficiency of the training process. Important changes regarding JHPIEGO educational programs have been listed in other sections of this report, but for continuity are briefly listed below:

1. Academic Skills Course for Medical School Faculty in Reproductive Health - This new course as described in Section I, was conducted for the first time in June 1980, and repeated in July 1980, was attended by a total of 20 physicians from 16 countries.
2. Management of Infertility Course - Initially conducted during FY'79 in English, this course was conducted for the first time in French, in FY'80. Offering of this course, allowed JHPIEGO to not only address an important health need of many women throughout the world, but also allowed physicians from many African nations the opportunity to attend a JHPIEGO program who otherwise might not have been able to attend the traditional Clinicians course.

3. Administrators Course - Offered for the first time in Portuguese and Turkish.
4. In-Country Training Programs - The number of in-country training program agreements proliferated. Important changes regarding in-country training included:
  - a. Nurse training - the members of the staff of the International Nurse Education Program, were integrated into regional development offices and assumed major responsibility for development of nurse training components in JHPIEGO in-country programs. Nurse training programs were either developed or implemented in Egypt, Turkey, Tunisia, Morocco, Indonesia, Malaysia, Pakistan, Colombia and Brazil.
  - b. Reproductive Health Education Program (REHEP) - the REHEP program was developed to upgrade education of medical students throughout Latin American and other parts of the world. Didactic lectures, clinical management seminars, and clinical practice tutorials are provided to students with a minimum of 120 hours of instruction. The first REHEP program was initiated at the University of Santa Maria Medical School, Rio Grande do Sul, Brazil. It's major objective is to graduate informed, motivated, and skilled students, to strengthen the delivery of preventive gynecological services. An additional objective is to stimulate the involvement of key leadership medical institutions in developing linked educational and clinical services in reproductive health.
  - c. Expanded Reproductive Health Initiatives - in further support of the JHPIEGO emphasis of broadening its scope of reproductive health training, a program was developed with the Benadir Hospital and the

Ministry of Health in Somalia to provide pragmatic training to primary health care physicians from throughout Somalia in reproductive health, high risk pregnancy, and maternal and infant care. This program, along with the JHPIEGO project of Continuing Education in Reproductive Health for Rural Medical Officers in the Sudan, further substantiates JHPIEGO's increasing emphasis on developing broad based programs to address reproductive health needs of major import in a country.

#### SECTION IV

##### WORK PLAN FOR CURRENT YEAR\*

October 1, 1980 - September 30, 1981

\*JHPIEGO grant AID/Pha-G-1064 with the Agency for International Development concluded August 30, 1980. Beginning September 1, 1980, a cooperative agreement between AID and JHPIEGO (AID/DSPE-CA-0083) went into effect. It should be pointed out, though, that some JHPIEGO programs continue to be funded out of the former grant, while some programs are funded out of the new grant. The work plan described in Section IV therefore, is supported by both old and new grant monies.

## A. ADMINISTRATION

JHPIEGO will continue to develop systems to improve operating efficiency, and management of in-country programs.

The Grant Unit will become fully operational, and will increasingly develop monitoring systems to keep the Director and other JHPIEGO units informed on an on-going basis of the status of all in-country programs.

The functions of the JHPIEGO History and Evaluation Unit, will be fully integrated into the JHPIEGO core operation. In this regard, it is anticipated that the central records function of JHPIEGO will be assumed by this unit. In addition, utilizing the existing computer capacity of the Johns Hopkins University, as well as the capability of the Xerox 860 information processing system, it is expected that this unit will develop an automated data base on all JHPIEGO graduates. History and Evaluation will thereafter assume responsibility for all JHPIEGO record keeping and data functions, including annual report tables, and providing the Director and staff with on-going program information on a timely basis.

The JHPIEGO International Council plans to meet in Rio de Janeiro in March 1981, to review JHPIEGO program strategies and to provide recommendations for future initiatives. The International council will be enlarged to provide broadened representation, particularly from the disciplines of nursing and curriculum planning and development.

In the equipment area, JHPIEGO plans to continue monitoring the effective utilization of all laparoscopic equipment it distributes, and assuring that this equipment is properly maintained. Based on field reports that the laprocator light source needs improvement, JHPIEGO will begin providing a new light source, during FY 81.

Late in FY'80, JHPIEGO was informed that its administrative offices would have to be relocated to an adjacent building due to programmatic requirements of the Johns Hopkins University. Therefore, by mid-1981, the offices of the JHPIEGO Corporation will be moved. The Johns Hopkins University will assume the costs of this move. At this time, JHPIEGO personnel currently located on two floors of the Hampton House will be united on one floor in the new location which will increase program operating efficiency. It is anticipated that the JHPIEGO Educational Center will remain on the third floor of Hampton House, with the offices of the educational center Director and staff also remaining.

Finally, based on the requirements of the JHPIEGO/AID cooperative agreement, an outside evaluation of JHPIEGO by an independent team of four specialists in fields related to medical education, program evaluation, nursing education, and reproductive health is scheduled to be conducted in October 1980. This evaluation is expected to serve as a guide for future JHPIEGO program direction, as well as to assist in assessing the status of selected in-country educational programs.

#### B. PROGRAM ACTIVITIES

JHPIEGO will continue its educational efforts to institutionalize in teaching institutions in developing countries, the knowledge and skills necessary for the effective delivery of comprehensive reproductive health care. Stimulation, development, and establishment of didactic and/or clinical training centers within countries and regions are major elements in this program, as is the provision to institutions of medical equipment, educational materials, and technical assistance in faculty and curriculum development. Assistance in developing and conducting short conferences and didactic courses, and support of equipment maintenance activity, including training of maintenance technicians will also be given the highest priority.

Additional curriculum models and training centers will also be formulated, based on specific in-country needs. Moreover, intensive efforts will be carried out to reach the remaining medical schools and teaching institutions around the world with JHPIEGO programs of education and training for reproductive health.

At the JHPIEGO International Council Meeting held in Nairobi, in March 1979, International Council members expressed a number of other possible roles or programs for JHPIEGO to consider in planning future activities. The following, is a brief synopsis of the discussions, and points out different directions or approaches which JHPIEGO might consider in conducting future activities.

The team approach to education was strongly endorsed, and it was suggested that this concept should carry across the sub-specialties such that primary care physicians, internists and surgeons, as well as obstetricians-gynecologist, should receive training in reproductive health. Another approach which was endorsed was JHPIEGO's efforts towards providing educational materials such as books, manuals, and films to educational centers in languages other than English. Also, the broad concept of reproductive health with its preventive orientation was endorsed, since even special courses such as the Administrators course and Infertility course present materials in this context. It was also suggested that JHPIEGO continue to cooperate with other organizations so that other needs such as remodeled facilities and supplies could be met at the same time that JHPIEGO is assisting in education efforts.

Both the delivery of care and providing of training to meet the needs of rural areas were recognized as major problems for developing countries. One problem pointed out by several participants is that the shortage of trained physicians in rural areas is often more a problem of maldistribution rather than absolute shortage. Physicians are unable to go to rural areas due to the lack of facilities not only for delivering health care, but also to meet the various needs of their own families. Furthermore, to expect physicians to readily consent to go to outlying regions when the general trend of the entire population in most countries is towards rural-urban migration would be unrealistic. Therefore, it was recommended that educational and service efforts be directed towards alternative forms of health care delivery. Thus, the use of community health care workers, training indigenous midwives or dais, utilizing paramedics for health care delivery and setting up systems to facilitate referral of difficult cases all are approaches that probably will have more direct effect on health care in rural areas. Towards these efforts, additional approaches such as stressing the role that the physicians must play as a leader and supervisor of the health care team, the

recognition of traditional birth attendants by supplying simple equipment or awarding diplomas for completion of educational courses, and the active role of non-governmental groups such as Ob/Gyn societies towards addressing the health needs of the rural poor also are innovative, and hopefully will bridge the gap between traditional health practices and the formalized medical care systems.

Country specific projected program activities are outlined in detailed in section II. The following provides an overview of projected program activities in Africa, Asia, and Latin America.

### Africa

The entire continent of Africa is of high priority for JHPIEGO reproductive health initiatives. This continent represents a large number of countries with varying economic conditions, religious backgrounds and often unstable political systems. Mortality rates on this continent for pregnant women, infants, children and adults rank among the highest in the world.

Recruitment efforts will be carried out to attract candidates to existing United States courses for physicians and administrators as well as to provide educational opportunities for selected physicians and nurses at JHPIEGO sponsored programs in Tunisia, Morocco, Egypt, and Kenya. Since infertility is a well-known major health problem for Africa, most courses will contain some emphasis on this subject matter, particularly the more frequent female tubal factor, and the context of prevention through proper screening and management of sexually transmitted diseases. All courses, even those dealing with infertility, will contain other topics relative to Reproductive Health and Fertility Management.

It is anticipated that the in-country training initiatives at the University of Ibadan, and at the University of Nairobi, and in Tunisia will continue. These program agreements will be renewed, and nursing components may be added where appropriate. Additionally, the Somalia reproductive health training program for primary health care physicians and the Moroccan

physician and Nurse programs will be implemented. Also, the possibilities exist for the development of in-country programs in Ghana, and Tanzania.

Regional and/or international seminars or conferences may be utilized to interest health care professionals in this region in reproductive health, providing didactic material, and serving as the mechanism for recruiting candidates for other programs.

### Asia

Asia represents an important region, particularly because of the large populations within its confines. In comparison to Africa, this region for the most part is more advanced in terms of the establishment of infrastructures and in defining priorities and policies towards reproductive health. Many countries already have defined policies, programs, or interest in fertility management such as Thailand, the Philippines, Malaysia, and Indonesia. Therefore, JHPIEGO programs will have more emphasis on approaches to fertility management than perhaps in other regions. However, the role of fertility management in relationship to other aspects of reproductive health will also be presented.

Since many countries are more advanced in terms of structure and training, some emphasis will be given to complementing existing programs. For example, in countries with high rates of voluntary sterilization, microsurgical training for individuals from major centers will receive emphasis so that the few women requiring reversal can be managed effectively. Emphasis will also be placed on the training of teams for surgical programs consisting of physicians, plus nurses, paramedics, or technicians. In so far as possible, in-country or regional capabilities for such training will be developed. Regarding existing programs, it is anticipated that programs in Thailand, the Philippines, Egypt, Turkey and India will be continued. The

Continuing Education Program for Rural Medical Officers in the Sudan will also be implemented.

Meetings will additionally be held with representatives of The Ministry of Health in Egypt for the development of an IUD Training Program for physicians assigned to rural health centers.

#### Latin America

This region consists of countries that are relatively advanced in policies and directions towards the fertility management aspects of reproductive health (Mexico, El Salvador, Colombia). For those countries actively attempting to deal with their high growth rates, much of the emphasis will be similar to the regional efforts in Asia. That is, in-country programs will have fertility management emphasized, to attempt to systematize approaches through team training of all levels of health professionals. More emphasis may also be given to assisting in curriculum development and development of educational materials for existing training efforts as is currently the case at the REHEP center at the University of Santa Maria, Brazil.

For other countries, the overall approach may be similar to that in Africa. Programs will be specifically designed to develop an infrastructure through training of health professionals including physicians, nurses, nurse practitioners, and paramedics, who eventually will staff the primary, secondary and tertiary facilities. Emphasis will be towards reproductive health in its broader content. Conferences also may be held to acquaint decision-makers with the problems relevant to reproductive health. United States-based training will be towards complementing these in-country efforts.

It is anticipated that the existing in-country programs in Colombia and Brazil will continue, and that new agreements will be negotiated for each. In

addition to the REHEP program at the University of Santa Maria, at least two additional REHEP programs may be implemented during the coming year in Latin America.

### C. COURSES AT JOHNS HOPKINS

During the fiscal year, approximately 240 physicians and administrators from developing countries will attend courses at the Johns Hopkins Educational Center. It is estimated that there will be two courses for clinicians, both will be given in a foreign language.

The administrators courses, four in number, will be given in English, Spanish, French and Portuguese.

There will be two micro-surgical courses, one of which will be in English, and the other will be in a foreign language.

There will be three infertility courses, one in English and two in a foreign language.

There will be two courses offered in academic skills which will be given in English.

Almost all of those attending the courses for physicians will be scheduled for a third week of technical training and clinical experience en route home at a JHPIEGO clinical practice center.

If needed and requested, special programs may be arranged for key health care and nursing personnel working with JHPIEGO-trained physicians in in-country programs or who are in positions of major administrative responsibility. These programs will be developed on an individual basis, but may include tutorial programs on the development of reproductive health training and education programs or programs to develop collaborative relationships between nursing personnel, physicians, and other members of the health care team on the development of endoscopic training programs. In

addition, specific training in special reproductive health clinical skills may occasionally be provided.

It should be noted that the above-described training schedule is tentative, and subject to modification as need warrants based on program review meetings held by JHPIEGO central staff.

#### D. FUNDING FOR JHPIEGO PROGRAMS

Of major importance to the continued growth and expansion of JHPIEGO activities, is the development of funding resources in addition to those already provided by the Agency for International Development. As set forth in the newly developed cooperative agreement with AID, JHPIEGO will continue to seek alternative sources of funding. A major thrust during the coming year, will be for the raising of outside funds for JHPIEGO programs which cannot be supported by AID. Such programs might include the following:

1. Development of a reproductive health and endoscopic educational program for physicians from the People's Republic of China.
2. Support of operations research projects on reproductive health and fertility regulation.
3. Providing reproductive health training and education of physicians from developing countries where AID funds cannot be utilized.
4. Organizing conferences and participating in obstetrical and gynecological meetings in countries such as Mozambique and Algeria where AID funds currently cannot be utilized.

#### E. EDUCATIONAL MATERIALS

The packets of educational materials which JHPIEGO has developed will continue to be distributed to teaching institutions and physician-trainees in the developing countries. These teaching packages will be reviewed for appropriateness of content, and additions and deletions made as necessary. In

addition, a nurse education package which recently has been developed, will be sent to nurse trainees in the developing countries.

Also, it is expected that a minimum of four books or special reports will be published by JHPIEGO in the coming year. These publications will include:

1. Surgical Equipment and Training in Reproductive Health - This is the proceedings of the two-day JHPIEGO conference held in Key Biscayne, Florida, in 1979, on Surgical Equipment for Educational Programs in Reproductive Health. This book presents the results of the deliberations and recommendations of the conference participants.
2. Reproductive Health Education in the Developing World - This will be a monograph based on the proceedings of the JHPIEGO International Council meeting held in Nyeri, Kenya, in March 1980.
3. Laprocator: Preventive Care and Maintenance and Advanced Laparoscopic Preventive Care and Maintenance - As pointed out earlier in this report, these manuals will be provided to all physicians, nurses, and operating room personnel who are involved in laparoscopic services. It is anticipated that they will be published in English, as well as French and Spanish.
4. JHPIEGO Directory of Medical Schools in Africa, Asia, Latin America - These directories will provide a comprehensive listing of all known medical schools in the developing world, as well as associated teaching hospitals. This is a project which initially was carried out by the JHPIEGO History and Evaluation Unit.

In addition, work will be started on the revision of The Manual of Human Reproduction (FIGO Manual). This is the classic teaching manual on human reproduction which was originally published in 1976 and JHPIEGO now holds the copyright.

## F. SPECIAL CONFERENCES

In addition to the International Council Meeting, JHPIEGO is tentatively planning a number of additional conferences during the year in order to promote or review program activities. These include:

1. JHPIEGO Equipment Committee meeting - To review the current status of surgical equipment in the light of current and projected in-country training needs, and to make recommendations regarding current and new equipment which might be provided to training centers and graduates.
2. In-Country Project Director's Meeting - A meeting to:
  - a. evaluate the progress of in-country training
  - b. review curriculum materials and content
  - c. review teaching methods, and
  - d. review training strategies.
3. Maternal and Child Health in Francophone Africa - A meeting to be attended by key leaders of Francophone African countries, including Ministers of Health and Chairmen of Departments of Obstetrics and Gynecology, to review the value of maternal and child health and child spacing programs in advancing the overall level of health care in countries within Francophone Africa.
4. JHPIEGO Educational Committee Meeting - This meeting will be held primarily to review the JHPIEGO educational packages, and to provide recommendations regarding new and recently developed materials for consideration for inclusion in the packages.

## G. MONITORING, EVALUATING, AND AUDITING OVERSEAS PROGRAMS

While JHPIEGO will continue to develop and evolve new programs and educational models overseas, JHPIEGO's focus will also be directed to monitoring and evaluating on-going in-country projects and programs for effectiveness and compliance.

In addition, to assure fiscal accountability for overseas programs, JHPIEGO will develop an overseas audit program and contract with an independent audit firm for its implementation.

SECTION V

FISCAL REPORT

October 1, 1979 - September 30, 1980

RECAP A

AID Grant pha-G-1064

	<u>Actual 7-1-74/ 9-30-79</u>	<u>Actual 10-1-79/ 9-30-80</u>	<u>Unliquidated Obligations as of 8-31-80</u>	<u>TOTAL</u>
Central Costs	\$ 4,442,162	\$1,634,264	\$ 27,121	\$ 6,103,547
Planning/Development				
Equipment	5,789,845	1,846,751	1,501,597	9,138,193
Training Activities	6,906,898	1,834,719	1,314,213	10,055,830
<b>TOTAL</b>	<u>\$17,138,905</u>	<u>\$5,315,734</u>	<u>\$ 2,842,931</u>	<u>\$ 25,297,570</u>

RECAP B  
 AID GRANT pha-G-1064  
FOR CENTRAL COSTS

	Actual <u>7-1-74/9-30-79</u>	Actual <u>10-1-79/9-30-80</u>	Unliquidated Obligations as of <u>8-31-80</u>	<u>TOTAL</u>
SALARIES	\$2,164,444	\$ 704,517		\$2,868,961
FRINGE BENEFITS	340,599	123,041		463,640
CONSULTANTS	100,346	39,574		139,920
TRAVEL	462,199	231,176		693,375
SUPPLIES	189,914	67,713	6,666	264,293
OFFICE EQUIPMENT	45,184	11,749	15,677	72,610
TELECOMMUNICATIONS	239,519	114,182		353,701
SPACE RENTAL	113,392	42,147		155,539
OTHER DIRECT	133,025	80,103	3,372	216,500
AUDIT FEES		5,518		5,518
TOTAL DIRECT	<u>\$3,788,622</u>	<u>\$1,419,720</u>	<u>\$25,715</u>	<u>\$5,234,057</u>
INDIRECT COSTS	635,540	214,544	1,406	869,490
CENTRAL COSTS TOTAL	<u>\$4,424,162</u>	<u>\$1,634,264</u>	<u>\$27,121</u>	<u>\$6,103,547</u>

RECAP C  
 AID GRANT pha-G-1064  
FOR EQUIPMENT COSTS

	<u>Actual 7-1-74/ 9-30-79</u>	<u>Actual 10-1-79 9-30-80</u>	<u>Unliquidated Obligations as of 8-31-80</u>	<u>TOTAL</u>
Procurement	\$5,291,347	\$1,643,745	\$ 1,451,286	\$8,386,378
Repairs	135,943	37,467	44,066	217,476
Foreign Freight	187,060	87,259		274,319
Warehousing	115,586	60,461		176,047
TOTAL DIRECT COSTS	<u>5,729,936</u>	<u>1,828,932</u>	<u>1,495,352</u>	<u>9,054,220</u>
INDIRECT COSTS	59,909	17,819	6,245	83,973
EQUIPMENT COST TOTAL	<u>\$5,789,845</u>	<u>\$1,846,751</u>	<u>\$ 1,501,597</u>	<u>\$9,138,193</u>

RECAP D  
 AID GRANT pha-G-1064  
FOR TRAINING PROGRAMS

	<u>Actual 7-1-74/ 9-30-79</u>	<u>Actual 10-1-79/ 9-30-80</u>	<u>Unliquidated Obligations as of 8-31-80</u>	<u>TOTAL</u>
Participant Costs	\$1,120,907	\$ 636,747		\$ 1,757,654
Field Training	422,329	103,127	30,000	555,456
PIEGO Training Centers	4,808,074	213,628	326,457	5,348,159
Educational Materials	111,765	136,028	59,435	307,228
National/Regional Programs	443,823	745,189	898,321	2,087,333
	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL TRAINING PROGRAMS	\$6,906,898	\$1,834,719	\$ 1,314,213	\$10,055,830

APPENDICES

APPENDIX A

REPORT AND RECOMMENDATIONS OF THE JHP I EGO  
INTERNATIONAL COUNCIL

## COMMITTEE REPORT

"PRIORITIES OF REPRODUCTIVE HEALTH EDUCATION  
WITH PARTICULAR REFERENCE TO AFRICA"

## COMMITTEE MEMBERS:

Dr. J.K.G. Mati (Chairman)  
Dr. Oladapo Alabi Ladipo  
Dr. Tahar Alaoui  
Dr. John F. Kantner  
Dr. Janet B. Hardy  
Dr. Leo Dunn

The basic objective is to ensure all parents the opportunity to produce who will develop into physically, mentally and socially normal individuals who will have the maximum opportunity for personal health and development and the opportunity to repeat the process of human procreation.

I. BASIC HEALTH EDUCATIONProblem:

There is a need to develop a system by which the public may be educated in matters of basic health that would include nutrition, hygiene, prophylaxis, and reproduction.

Methods:

A series of educational curricula should be developed for all levels of health care providers from specialists to the traditional medical practitioners in order to prepare them as teachers of Basic Health Education. The primary and secondary school systems should also be included by providing such preparation to teachers who would incorporate these matters into their instructional programs. Furthermore, the requirement of an entry physical examination and immunization prior to admission to school would provide an entry into the health care systems.

Recommendation:

JHPIEGO should organize, on a regional basis, a series of meetings of African nations in which JHPIEGO now has or is developing, an educational program. The meetings would be for the purpose of planning the means by which these objectives can be met. These general planning meetings should be followed by a series of more detailed planning sessions within each nation where guidelines can be established and the outlines of the curricula developed.

The general planning meetings should include those person who influence health policy, education, agriculture and provision of services such as the ministers of health, education and leaders in Obstetrics and Gynecology from each participating nation.

The national meetings should be so organized that the responsible participants from the nation would develop the guidelines and utilize the resource of JHPIEGO and other non-governmental organizations with roots in the region to develop the curricula and educational packages.

## II. REPRODUCTIVE HEALTH EDUCATION

### Problem:

Maternal mortality exists at an unacceptable rate. In many instances, skills and facilities are available that would prevent these occurrences but are not utilized in a timely manner, indicating the need for public education. In other instances, public policies, lack of facilities, lack of skilled personnel or lack of supplies are to blame.

### A. Illegal Induced Abortion

#### Solutions:

1. Public education for the prevention of adolescent and unwanted pregnancies.
2. Create an awareness among policy makers of the impact of illegal abortion upon the health of women.
3. When legal, develop training programs and facilities where abortions can be safely carried out.

#### Recommendations:

1. Preparation of acceptable educational materials to provide instruction in pregnancy prevention for both men and women.
2. The national obstetrical and gynecologic societies and non-government organizations should organize campaigns to influence public policy on abortion.
3. Training in the management of abortions and its complications. If possible, JHPIEGO could be of assistance by providing educational materials or suggest recourses for items 1 or 2.

### B. Obstetrical Complications

There is a need to develop a series of educational programs that would instruct health care providers from the traditional health care provider to the specialized physicians in the recognition of important risk factors in pregnant women and appropriate management or referral.

Recommendations:

A document should be developed for physicians that would provide appropriate instructional information regarding obstetrical care. This should be done on a regional basis by a series of workshops sponsored by JHPIEGO that would include professional educators, leading obstetricians and gynecologists of that nation and consultants, as needed. Based upon these documents and as team leaders, the physicians should develop similar instructional materials for the remaining health care providers.

C. Non-Obstetrical Reproductive Health Programs

There are certain significant areas that have a major impact upon female sterility, excessive parity and advanced malignancy that must be included in any comprehensive program aimed at reproductive health. Specifically, these areas are identified as:

- a. Sexually transmitted diseases
- b. Family planning
- c. Cancer detection

Recommendations:

The development of instructional materials carries with it the need to instruct the target group in the value and proper use of them. This can be accomplished by the use of instructional workshops that might also include the next level of care so as to integrate their activities. JHPIEGO should support a series of instructional workshops in order to implement the use of these instructional materials. In addition, the format discussed under "Obstetrical Complications" could be utilized for these topics as well.

## COMMITTEE REPORT

"TECHNOLOGY IN REPRODUCTIVE HEALTH TRAINING PROGRAMS  
AND REVIEW OF RESULTS OF EQUIPMENT CONFERENCE AND  
AFRICAN REGIONAL CONSULTANTS MEETING"

## COMMITTEE MEMBERS:

Dr. Suporn Koetsawang (Chairman)  
Dr. J. Richard Gaintner  
Dr. Virgilio Oblepias  
Dr. Fernando Tamayo  
Dr. Ronald T. Burkman

This committee covered a number of problems relative to technology in reproductive health programs. It is particularly focused on two JHPIEGO sponsored meetings held during the last twelve months. The first was a JHPIEGO conference on surgical equipment which was held in September 1979. This conference involved 79 individuals concerned with the provision of surgical equipment in training programs. In addition, the committee reviewed the results of a regional consultants meeting held in January 1980 for African consultants having the responsibility to install laparoscopes and upgrade centers within that continent. Finally, the committee focussed on additional ideas and problems relative to surgical training and technology.

The following are the recommendations based on the discussions:

I. JHPIEGO EQUIPMENT CONFERENCE

Under the general heading of anesthesia and analgesia for laparoscopic or mini-laparotomy procedures, it was the recommendation of the committee that all centers carrying out surgery should have basic manual resuscitative equipment available. In addition, when procedures are carried out in mobile units, this same equipment should be available as well as laparotomy sets, and there also should be someone available who is trained to give general anesthesia.

Under the heading of laparoscopic equipment maintenance, it was pointed out that the provision of two laparoscopes and trocars per center along with one console in many instances may increase the efficiency of care and overall be more cost efficient. One of the problems faced by operating room facilities in the developing world is a limitation of operating room time. Thus, additional equipment would reduce turn around time and the total number of cases to be carried out could be increased.

The need for a maintenance technician in any locale will show a great degree of variability according to type of equipment provided as well as the overall utilization of equipment. It was stressed that the preventive maintenance of equipment is the most important aspect of any maintenance program. For this reason, the new JHPIEGO film dealing with laparoscopic equipment care is an extremely valuable asset to the program.

Under the general heading of new and current equipment, it was pointed out that there is a need to provide updated technical information regarding the care of equipment and potential problems as quickly as possible in the field. In addition, the decision to publish a detailed JHPIEGO equipment manual was strongly endorsed. It was also suggested that since in countries like India there are other types of silastic rings available (the so-called non-barium or Chimco rings) a clinical trial comparing the standard rings versus the Chimco rings should be considered. Regarding the laproscator, it was felt that the concerns about the length of the instrument are gradually disappearing. The major reason for this is that the newer trainees using this equipment have not been exposed extensively to the longer length instrument, therefore, they adapt to the shorter instrument quite readily.

In regards to microsurgery training, the JHPIEGO plan of providing training and simple equipment to countries where sizable numbers of female sterilizations are carried out, was endorsed. The overall need and demand for this type of training is unknown. However, certainly as the age of parity of patients presenting for sterilization decreases, one might expect that there will be some increased demand. It also was pointed out that it is imperative that each program carrying out voluntary sterilization provide counseling of a detailed nature so that patients do not undergo procedures with the expectation that the sterilization will be reversible. Finally it was suggested that anyone receiving microsurgical training should be a relatively young surgeon.

Under the heading of other surgical techniques, open laparoscopy was discussed in some detail. It was the recommendation that there need to be continued evaluation of this technique and if training centers express a desire to make this training available, the necessary equipment should be provided to such programs.

It was also pointed out that diagnostic laparoscopy needs to be stressed with the laproscator. For example, the utilization of a simple two incision approach with a hystrometer or uterine sound for the second incision, will make the laproscator a very effective diagnostic instrument. It was pointed out that the instrument used in this fashion can be utilized for at least 90 to 95 percent of diagnostic cases.

## II. AFRICAN REGIONAL CONSULTANTS' MEETING

It was recommended that a number of simple spare parts be provided to consultants rather than actual repair kits. It was not the opinion of the committee that it is necessary for all consultants to be able to repair equipment, particularly since the laparoscopic equipment now being provided is much simpler.

The plan of having a team approach to education was also strongly endorsed. It was felt that the consultants should spend a great deal of effort educating nurses during the field visit so that they will be able to take care of equipment and will be able to discuss procedures intelligently with patients.

### III. OTHER SURGICAL TECHNIQUES OR TRAINING

It was suggested that colposcopy training is helpful. However, such training should only be provided to groups or health care delivery systems where there already is a screening or detection program operational. In addition, it was the opinion of the committee that JHPIECO should not be responsible for colposcopic equipment. Therefore, the training should be provided to institutions or systems where colposcopic equipment is already available.

It was stressed the JHPIECO should not neglect mini-laparotomy training as a technique in its surgical training. Certainly the utilization of this technique compliments laparoscopy.

It was emphasized that training in IUD insertions is a form of surgical training. Such training should primarily be carried out in-country. Since training is often concerned with paramedics and less-skilled physicians, the course should be intensive. Certainly the management of complications should be stressed in such training.

It was also recommended that the utilization of IUD's in a contraceptive program requires a back-up system that, in general, is physician supervised. By having a physician supervise such a system, the management of complications will be facilitated.

Finally, it was suggested that patient education training be incorporated into any nurse-paramedic training programs in order to further compliment or increase the concept of the team approach to training.

## COMMITTEE REPORT

"STRATEGIES FOR IMPLEMENTING CHANGES IN HEALTH CARE  
DELIVERY PRIMARILY BY IMPROVING AND ALTERING  
EDUCATION WITH THE DEVELOPMENT OF CONTINUING EDUCATION"

## COMMITTEE MEMBERS:

Dr. Harry Woolf (Chairman)  
Dr. Jorge Martinez-Manautou  
Dr. Helio Aguinaga  
Professor M.F. Fathalla  
Professor T.D. Jain  
Dr. Theodore M. King

This committee addressed a number of issues relative to implementing change. Although few specific recommendations resulted from the discussions, the committee did provide some suggestions for different approaches to education.

Changes in health care-delivery are required for both urban and rural communities. For example, in Mexico, the current program is providing care in a somewhat modified fashion as compared to usual practices:

There is a training program for rural health technicians of 6 months duration. The future rural health technician is identified from specific villages. These rural health technicians work with nurses and physicians. In the cities there is a so-called community office program staffed by a physician and a nurse and medications are available to patients at cost. This is in contrast to the village program in which the villages are provided free medication. Thus, attempts are being made to bridge the gap between traditional organized medicine and the care provided by indigenous workers.

It is clear that there is a requirement for interdisciplinary education of young physicians. The disciplines that should have training together include community health physicians, pediatricians and obstetrician/gynecologists. Similarly, nurse education should have strengthened programs in maternal and child health education and in selected areas of primary health.

To accomplish the required changes in health care delivery, there must be new forms of communication for both health personnel and patient populations. Such forms of communication could involve visual systems which would provide immediate feedback.

Traditional health providers can be utilized in specific areas of health care, particularly in maternal and child health and in the detection and management of certain forms of mental disease. The advantage of utilizing

these individuals includes their having local esteem within the villages or within their communities. They should be provided with small quantities of simple medicines. Initially, they should be supported by the government and eventually they possibly could become self-supporting through sale of their medications.

In regard to the use of pharmacological agents, education should be addressed towards health care personnel in an effort to limit the use of non-therapeutic agents and to encourage the use of generic agents. JHPIEGO, in cooperation with FIGO or WHO, might prepare seminars for various areas of the world directed towards the topic of use and abuse of drugs in maternal and child health. WHO has recently released a bulletin on drug use which should be reviewed.

Education must be directed toward all institutions of the government in order to influence multi-sectoral agencies and policy makers. Such sectors include education, business, social services, urban/rural affairs, and general health.

APPENDIX B

JHP IECO PUBLICATIONS

JHPIEGO PUBLICATIONSOctober 1980U.S.

1. King, T.M., Stanley, J. Burnett, L.S., Burkman, R.T., Youngs, D.D., Atienza, M.F., and Woodruff, J.D. Continuing Education of Obstetricians and Gynecologists in Fertility Management, Amer. J. Obstet. Gynec. 121: 829, 1975.
2. Rock, J.A., Burkman, R.T., Genadry, R. and King, T.M., An International Program for the Assessment of Tubal Anastomosis by Microsurgical Technique: A Preliminary Report, J. Microsurgery 2: 63, 1980.
3. Burkman, Ronald T., Magarick, Ronald H, Waife, Ronald, (Ed) Surgical Equipment for Reproductive Health, to be published as a monograph, Baltimore, The Johns Hopkins Program for International Education in Gynecology and Obstetrics, November, 1980.
4. Altobelli, L.C., Burkman, R.T., and Clapper, D.J. Laprocator: Preventive Care and Maintenance. The Johns Hopkins Program for International for Education in Gynecology and Obstetrics. 1980.
5. Altobelli, L.C., Burkman, R.T., and Clapper, D.J. Advanced Laparoscopic Systems: Preventive Care and Maintenance. The Johns Hopkins Program for International Education in Gynecology and Obstetrics. 1980.
6. Giltrud, N.E. and Husman, C.M. "An Introduction to Reproductive Physiology and Contraceptive Methods: A Programmed Instruction". To be published by the Johns Hopkins Program for International Education in Gynecology and Obstetrics, 1981.
7. Taylor, Howard C. and Magarick, Ronald H., "An International System for the Education of Students of Medicine and Other Health Professionals in Human Reproduction", accepted for publication, International Journal of Gynecology and Obstetrics, 1981.

OVERSEAS (SAMPLING)

1. Magarick, R.H., Burkman, R.T., Lesinski, J.S., "Educational and Training Programs for Reproductive Health", Scientific Exhibition Monograph, IX World Congress of Gynecology and Obstetrics, Japan Society of Obstetrics and Gynecology, Tokyo, 1979.
2. Magarick, Ronald H., "The Physician as Team Leader for Reproductive Health Education", presented at Third Annual Meeting of Egyptian Fertility Control Society, Tanta, Egypt, May, 1979. To be published in Egyptian Journal of Obstetrics and Gynecology, 1980.

3. Magarick, Ronald H., "The Physician's Role in the Integration of Health Education in Family Planning and Maternal and Child Health Services, in Proceedings of Sixth Sudanese Congress of Obstetrics and Gynecology, Khartoum, February, 1979.
5. Burkman, R.T. (Ed.): Reproductive Health Education in the Developing World, to be published as a monograph. Based on the Proceedings of the International Council Meeting of the Johns Hopkins Program for International Education in Gynecology and Obstetrics, 1981.
6. Oblepias, V. Experience with laparoscopic sterilization in The Philippines. Presented at the 5th Annual Scientific Conference of the Kenya Obstetrical and Gynaecological Society. Nairobi, 1980. To be published in the E. African Medical Journal.
7. King, T.M. Recent Advances in Endometrial Cancer. Presented at the 5th Annual Scientific Conference of the Kenya Obstetrical and Gynaecological Society. Nairobi, 1980. To be published in the E. African Medical Journal.
8. Burkman, R.B. The Diagnosis of Intra-Epithelial Neoplasia of the Cervix. Presented at the 5th Annual Scientific Conference of the Kenya Obstetrical and Gynaecological Society. Nairobi, 1980. To be published in the E. African Medical Journal.
9. Dunn, L. Treatment of Cervical Cancer. Presented at the 5th Annual Scientific Conference of the Kenya Obstetrical and Gynaecological Society. Nairobi, 1980. To be published in the E. African Medical Journal.
10. Fathalla, M.F. Current Concepts in Ovarian Neoplasia. Presented at the 5th Annual Scientific Conference of the Kenya Obstetrical and Gynaecological Society. Nairobi, 1980. To be published in the E. African Medical Journal.
11. Suporn, K. Molar Pregnancy - Experience in Thailand. Presented at the 5th Annual Scientific Conference of the Kenya Obstetrical and Gynaecological Society. Nairobi, 1980. To be published in the E. African Medical Journal.
12. Ladipo, O.A. Hepatitis B Surface Antigen in Menstrual Blood and Serum in Nigerians. Presented at the 5th Annual Scientific Conference of the Kenya Obstetrical and Gynaecological Society. Nairobi, 1980. To be published in the E. African Medical Journal.
13. Ladipo, O.A. Plasma FSH, LH Testosterone in Fertile and Infertile Nigerian Men. Presented at the 5th Annual Scientific Conference of the Kenya Obstetrical and Gynaecological Society. Nairobi, 1980. To be published in the E. African Medical Journal.

14. Rock, John and Genadry, Rene. Microcirugia Ginecologica. Proceedings of the First Latin American Course in Microsurgery, February 25 - March 7, 1980. Bogota, Colombia. In press. (ACEP)
15. Huber, D. Contraceptive Methodology. Presented at the 16th Annual Postgraduate Seminar in Obstetrics and Gynecology, Moshi, Tanzania, May 1980. Proceedings to be published as a monograph.
16. Huber, D. Fertility Pattern After Contraception. Presented at the 16th Annual Postgraduate Seminar in Obstetrics and Gynecology, Moshi, Tanzania, May 1980. Proceedings to be published as a monograph.
17. Kearney K. Female Sterilization. Presented at the 16th Annual Postgraduate Seminar in Obstetrics and Gynecology, Moshi, Tanzania, May 1980. Proceedings to be published as a monograph.
18. Kearney K. Indications and Risks of Induction of Labor. Presented at the 16th Annual Postgraduate Seminar in Obstetrics and Gynecology, Moshi, Tanzania, May 1980. Proceedings to be published as a monograph.
19. El Sahwi, S. Investigation of the Infertile Couple. Presented at the 16th Annual Postgraduate Seminar in Obstetrics and Gynecology, Moshi, Tanzania, May 1980. Proceedings to be published as a monograph.
20. El Sahwi, S. Surgical Treatment of Infertility. Presented at the 16th Annual Postgraduate Seminar in Obstetrics and Gynecology, Moshi, Tanzania, May 1980. Proceedings to be published as a monograph.
21. Huber, D. Health Aspects of Modern Contraceptives. Presented at the Fourth Annual Meeting of the Egyptian Fertility Care Society, Port Said, Egypt, June 1980. To be published in the Egyptian J. Obstet. Gynec.
22. Huber, D. Effects of Contraceptives on Breast Milk. Presented at the Fourth Annual Meeting of the Egyptian Fertility Care Society, Port Said, Egypt, June 1980. To be published in the Egyptian J. Obstet. Gynec.
23. Rock, J. Microsurgery of the Fallopian Tube. Presented at the Fourth Annual Meeting of the Egyptian Fertility Care Society, Port Said, Egypt June 1980. To be published in the Egyptian J. Obstet. Gynec.
24. Burkman, R.B. The Hopkins Experience with the Falope Band Procedure. Presented at the Third international Seminar on Maternal and Perinatal Mortality, Pregnancy Termination and Sterilization, New Delhi, October, 1980. Proceedings to be published by F.I.G.O.

25. Rock, J. Microsurgery of the Fallopian Tube. Presented at the Third International Seminar on Maternal and Perinatal Mortality, Pregnancy Termination and Sterilization, New Delhi, October 1980. Proceedings to be published by F.I.G.O.