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## I. INTRODUCTION

At the end of this report period, the International Fertility Research Program (IFRP) had been in existence for nearly five years. The Program continues to serve as the "final common path" for development and clinical testing of a variety of fertility regulation methods. A review of the past reports together with the current one will show that the Program has responded to needs created by new developments in contraceptive technology; it has been able to shift study priorities on the basis of these changes and thus continue to produce up-to-date information. The contributor network now spans 30 countries around the world. It continues to provide surveillance of fertility control methods currently in use, and is now capable of conducting the more sophisticated comparative studies useful in determining the value of newer methods in relation to existing ones. Since there are many new approaches to fertility regulation in need of careful clinical testing and continuing concern about the safety of present methods, this dual approach to clinical trials and epidemiological studies will continue to be one of the IFRP's main priorities.

Results of IFRP studies have served as a guide to AID in the purchase of oral contraceptives and female sterilization equipment. The increasing number of incremental improvements in these and other methods, as well as the potential for major changes in commodity needs which may result from a few methods now being tested, assure that such studies will continue to be useful. The growing IFRP data base on the safety of various fertility control methods is also an increasingly important source of information to regulatory agents such as the FDA and to national family planning programs.

Government officials from various countries are requesting assistance from the IFRP in the form of clinical training in newer methods of surgical contraception, in the evaluation of national family planning programs, and in the development of national fertility research centers. Requests have been received from the Governments of Bangladesh, El Salvador, Mexico, Nepal, Pakistan, and Sri Lanka. It is likely that in the future this consultant role will occupy an increasing amount of the IFRP's resources and staff time.

The Family Health Division of WHO has now joined the IFRP and the International Federation of Gynaecology and Obstetrics (FIGO) in developing and promoting the use of a standard Maternity Record and reporting system for maternity care services. This and other collaborative efforts between the IFRP and FIGO, including cosponsorship of the International Journal of Gynaecology and Obstetrics, were recognized at the FIGO-sponsored VIII World Congress of Gynecology and Obstetrics held in Mexico during this reporting period.

The future aspirations of IFRP relate to the most significant development crisis of our day: the failure to deliver health and family planning services to the world's poor. This segment of the world's population continues to increase in both proportion and in absolute numbers while developed countries and the more privileged segments of developing countries approach stationary populations. While newer methods of fertility regulation could remarkably relieve the burden of delivering family planning services, research in how to deliver presently available methods is needed.

The broadly based IFRP contributor network and the associated national fertility research programs, with the numerous service facilities that they supervise, provide an ideal mechanism within which to evaluate new approaches to make both present and newer family planning methods more truly available to those in greatest need. Plans to establish an Evaluation Systems Division within IFRP and to designate key contributor centers as "research training centers" to test new approaches to the delivery of family planning and health services are now well advanced.

## II. FIELD ACTIVITIES

Field activities during this reporting period were essentially the same as in the preceding year (see Annual Report for 1975). A group of studies related to family planning program evaluation, for example Household and Community Distribution of Contraceptives, the Family Planning Clinic Record, and several health- and family planning-interrelated studies including the Maternity Record and rural penetration project, were initiated.

Because of increased activities in Asia, especially in Bangladesh, and in Latin America, an Assistant Area Coordinator was hired for Latin America and an Assistant is being recruited for Asia. Due to the retirement of the Head of the Field Studies Division, the duties of Acting Head were fulfilled by the Area Coordinators for Asia and Latin America. A full-time position of Field Studies Coordinator was created and filled to handle the administrative aspects of Field Studies.

The Area Coordinators Committee continues to serve as the first review body for study proposals and other activities related to field programs. Because adequate review of study proposals frequently required scientific and/or administrative inputs from IFRP staff other than those originally included as members of the Committee, the ACC was declared open to all staff.

Study Status Lists are appended (see Appendix A) for each of the geographic areas with the exception of India, since studies in that country are conducted and analyzed by the India Fertility Research Programme. During the past six months, 99 centers in 31 countries have contributed data.

Table I provides information on the number of studies by study area and the number of forms by country. Data from centers in India are not included since forms from Indian centers are processed in that country.

Table II lists the "major contributors", defined as those who have submitted 500 or more forms in one or a combination of study areas.

TABLE I  
NUMBER OF CENTERS ACTIVE  
OCTOBER 1, 1976 - MARCH 31, 1977

Country	Number Centers	PT	MR	IUD	FS	MS	SYS	Mat Rec	Special Studios	Total	
										Studies	Forms Received*
USA	7	-	-	-	3	3	5	1	-	12	1 286
Australia	1	-	-	1	-	-	-	-	-	1	870
England	7	2	-	-	6	-	-	-	-	8	867
Yugoslavia	7	2	1	8	-	-	-	-	-	11	1 878
Germany	1	-	-	1	-	-	-	1	-	2	117
Egypt	10	2	-	10	11	-	-	3	-	26	3 621
Iran	9	1	5	1	5	-	-	-	-	12	679
Dubai	1	-	-	-	-	-	-	1	-	1	125
Nigeria	1	-	-	-	-	-	-	1	-	1	5
Sudan	3	-	-	1	1	-	1	3	-	6	1 116
Philippines	2	1	-	2	3	-	-	-	-	6	1 106
Pakistan	2	-	-	-	3	-	-	-	-	3	272
Singapore	2	2	3	-	4	-	-	2	3	14	16 434
Korea	2	-	-	-	3	-	-	-	-	3	2 234
Nepal	1	-	-	-	2	-	-	-	-	2	191
Indonesia	3	-	1	2	4	-	-	-	-	7	1 073
Malaysia	3	-	-	-	4	-	-	-	-	4	506
Thailand	3	-	-	-	5	-	-	-	-	5	667
Sri Lanka	3	-	1	1	3	-	-	-	-	5	357
Taiwan	2	-	1	-	1	-	-	-	-	2	500
Bangladesh	6	-	2	2	6	2	-	-	-	12	1 660
Chile	5	1	1	12	9	-	-	-	-	23	5 353
Colombia	3	-	-	-	3	-	-	-	-	3	943
El Salvador	3	-	-	1	6	2	-	-	2	11	4 884
Costa Rica	1	-	-	-	1	-	-	-	-	1	167
Guatemala	1	-	-	1	1	1	-	-	-	3	76
Mexico	3	-	-	2	4	-	-	-	-	6	1 411
Brazil	1	-	-	-	1	-	-	-	-	1	18
Honduras	2	-	-	1	-	-	-	2	1	4	1 440
Uruguay	1	-	-	-	-	-	-	1	-	1	32
<b>Total</b>	<b>96</b>	<b>11</b>	<b>15</b>	<b>46</b>	<b>89</b>	<b>8</b>	<b>6</b>	<b>15</b>	<b>6</b>	<b>196</b>	<b>49 888</b>

\* Admission and follow-up only.

TABLE II  
**MAJOR CONTRIBUTORS\***  
**OCTOBER 1, 1976 - MARCH 31, 1977**

Country	Center	Study Area(s)	Total Forms Received
USA	008	SYS	765
Australia	280	IUD	870
Yugoslavia	020	IUD	718
Egypt	030	PT, IUD	977
	035	IUD, FS	924
	314	IUD, FS, Mat Rec	526
Sudan	048	Mat Rec, SYS	551
Philippines	600	IUD, FS	1 004
Singapore	070	PT, MR, FS	11 602
	798	Mat Rec	4 832
Korea	750	FS	2 195
Indonesia	739	IUD, FS	839
Chile	086	IUD	1 085
	087	MR, IUD, FS	1 442
	088	IUD, FS	2 288
	850	FS	508
El Salvador	821	FS, MS, FPCR	2 578
	822	Special Study	1 542
	823	IUD, FS	764
Mexico	860	FS	651

\* Centers submitting 500 or more forms (admission and follow-up) in one or a combination of study areas.

It should be emphasized, however, that an arbitrary number of forms received is not necessarily a valid criteria for defining "major contributors" since this criteria does not necessarily measure the complexity of studies or the quality of the data submitted. There are excellent contributors whose research produces a relatively low volume of forms, but data of major significance and of high quality. Such contributors may not be represented in such a table, while others who produce a high volume of lesser quality data may be.

Table III summarizes by study area data received for 1971 to September 30, 1976, and during this six-month reporting period. Pregnancy termination, intra-uterine device, and female sterilization studies continue to be the most active, but there is a noteworthy increase in special studies, including the Maternity Record.

TABLE III  
IFRP DATA FORMS RECEIVED BY STUDY AREA

Study Area	July 1971– Dec 1975		Jan–Sept 1976		Oct 1976– Mar 1977		Total	
	No.	%	No.	%	No.	%	No.	%
Pregnancy Termination	72 787	19.84	3 113	0.85	368	0.10	76 268	20.79
Menstrual Regulation	19 251	5.25	5 047	1.54	2 063	0.56	26 961	7.35
Intrauterine Device	78 527	21.41	18 839	5.15	11 632	3.17	109 058	29.72
Female Sterilization	48 044	13.10	18 519	5.05	12 771	3.48	79 334	21.62
Male Sterilization	2 202	0.60	1 883	0.51	1 069	0.29	5 154	1.40
Systemic Contraception	4 404	1.20	2 038	0.56	873	0.24	7 315	1.99
Maternity Record	2 301	0.63	6 362	1.73	7 192	1.96	15 855	4.32
Special Studies	6 563	1.79	26 490	7.22	13 920	3.79	46 973	12.80
<b>Total</b>	<b>234 079</b>	<b>63.81</b>	<b>82 951</b>	<b>22.61</b>	<b>49 888</b>	<b>13.60</b>	<b>366 918</b>	<b>100.00</b>

Table IV records the percentage of forms submitted by study area during 1975, 1976, and during this six-month reporting period. There was a notable decrease in forms from all study areas, except systemics and special studies forms including the Maternity Record.

Details of activities in the various countries conducting IFRP studies follow.

#### Europe

In Europe the largest IFRP program is in Yugoslavia. The contributors are primarily active in abortion and IUD studies, since the current laws do not permit sterilization for family planning purposes and make menstrual regulation impracticable to a large extent.

TABLE IV  
ANNUAL PERCENT DISTRIBUTION OF FORMS  
BY STUDY AREA

Study Area	1974 Jan-Dec	1975 Jan-Dec	1976 Jan-Dec	1977 Jan-Mar
Pregnancy Termination	24.5	23.87	3.60	0.45
Menstrual Regulation	9.0	9.58	7.14	4.74
Intrauterine Device	47.5	28.04	24.96	23.86
Female Sterilization	17.4	26.62	24.79	24.67
Male Sterilization	0.3	0.70	2.34	2.31
Systemic Contraception	1.2	1.02	2.73	1.92
Maternity Record	0.0	2.64	9.39	14.63
Special Studies	0.0	7.54	25.04	27.43
<b>Total</b>	<b>100.0</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

The most recent development in Yugoslavia has been the initiation in late March of studies of the photo-reduced tapered Lippes IUD in two centers and a comparative study involving the TR-11 in a third. Follow-up is continuing in previously initiated studies of the Copper Soonawala, TR-10, Copper-7, M-IUD, U-Coil and IUM devices. Also well underway is a follow-up study on IUD insertions following positive and negative pregnancy tests and MR procedures, and hystero-raphy and biopsy studies on the M and Hydron devices. Very near initiation is a 10-year retrospective survey of IUD insertions in Ljubljana by the Family Planning Institute.

A Maternity Record study is underway for all deliveries in 1977 in a center in Croatia. Other representative studies have been committed for initiation later in the year in representative centers in Macedonia, Kosovo, Slovenja, and the Belgrade area.

At the end of March, the sterilization laws were reviewed with several contributors who have been active in the effort for liberalization, and several possible studies were planned for initiation later in 1977 or early in 1978. Two comparative prostaglandin studies were also planned for initiation in the fall of 1977.

In Belgium, dialogue continued in an attempt to finalize a special report for psychosexual evaluations connected with work being done in reversible sterilization procedures.

In Germany, the IFRP began analysis of forms received for a PARFR-funded blood loss study of Lippes devices loaded with EACA; at the same center, data on the Copper Multiload device are being retrospectively recorded, and a 1977 Maternity Record study has been initiated.

In the Netherlands, studies of the Copper Multiload device and of female sterilization by thermocoagulation were initiated. In Austria, a study of tubal ring via colpotomy was initiated, as well as a 1977 Maternity Record study at the same center. Maternity Record studies for 1977 were also initiated at approximately a dozen centers in Switzerland, France, Italy, and Sweden.

#### Asia

From October 1, 1976 to March 31, 1977, the contributor network in Asia continued to expand. As of March 31 there were 42 centers in Asia. The location of these centers, names of contributors, types of studies, and the flow of forms are indicated on the Study Status List for Asia.

During this period several studies in new areas were initiated in Asia. In the field of IUDs, Dr. Ruben Apelo from the Philippines has been evaluating the postpartum insertion of the Lippes Loop D by the Burnhill technique, the postpartum insertion of the modified Lippes Loop, the postpartum Copper-T and Multiload devices. Dr. Suporn Koetsawang in Thailand is also evaluating the postpartum Copper-T. The tapered Lippes Loop D is being evaluated by Dr. deSilva in Sri Lanka.

In the area of systemic contraceptives, Dr. Agoestina of Indonesia is evaluating Depo Provera. Comparative studies between high dose and low dose contraceptives have been started in one center in Thailand and in one in Bangladesh.

The Maternity Record is being used to evaluate all deliveries at Professor S. S. Ratnam's unit in Singapore.

Professor T. H. Lean is conducting the pretest for the Voluntary Surgical Contraception Form. He has also provided IFRP with data pertaining to the durability of different types of menstrual regulation kits. Professor Lean's center has also been involved in evaluating the miniaturized, operating Olympus laparoscope.

Centers in Asia were involved in evaluating the PIEGO Double Ring Applicator. Professor D. E. Gunatilleke of Sri Lanka has been involved in evaluating the Waters Thermocoagulation Unit for second incision laparoscopic sterilizations.

Regional fertility research programs were started in a number of countries in Asia. The Bangladesh Fertility Research Programme (BFRP), which was established in July 1976, has progressed on a firm footing. The last Executive Council Meeting of the BFRP was held in February 1977 when the Data Collection Coordinator was appointed. The BFRP has been actively involved in the implementation and evaluation of the voluntary sterilization program of the Government of Bangladesh.

The IFRP is collaborating with the Korean Institute of Family Planning in evaluating the AID-funded Female Sterilization Project. Data from seven hospitals are being coordinated by the Data Collection Coordinator trained by IFRP. This will form the nucleus of the regional program in Korea. IFRP and the Korean Institute of Family Planning have signed an agreement to start the Korean Fertility Research Program in January 1977.

Extensive discussions about the formation of the Philippine Fertility Research Program have been conducted with the Philippine Commission on Population and the Population Center Foundation.

The Indonesia Fertility Research Program was formally established in January 1977 with the cooperation of the BKKBN (Government organization of Indonesia coordinating all family planning research activities). An agreement was signed and the Organization was named Badan Kerja Sama Penelitian Fertilitas Indonesia (BKSPERFIN).

In Sri Lanka the initial discussion concerning regionalization centered around the Family Planning Association of Sri Lanka and the Institute of Post-graduate Medicine, thus involving both voluntary and government organizations. Fruitful discussions were held with the Minister of Health of Sri Lanka during her visit to IFRP. The Government of Sri Lanka has requested IFRP to provide consultation and evaluation for Government programs pertaining to population. The Family Planning Association of Sri Lanka has submitted a multifaceted proposal (with Governmental approval) for evaluating mobile clinic family planning services, community-based distribution of contraceptives, oral contraceptives, and female sterilization by minilaparotomy.

During this period IFRP has been involved in training programs for minilap sterilizations in Bangladesh and Nepal by invitation of the Governments of these countries. The IFRP has also been involved in training Data Collection Coordinators and physicians in the South East region. One Data Collection Coordinator from Bangladesh was trained at IFRP, and two others were trained at Calcutta. Two physicians from Bangladesh received training in fertility control techniques in Bombay. Two physicians, one from Bangladesh and one from Indonesia, received training in Singapore.

During this period, IFRP has had eight visitors from Asia. We sponsored 59 contributors to attend conferences for presenting their research data related to IFRP studies. At the request of the Draper World Population Fund and Japan Science Society, the IFRP sponsored a workshop on "Taking Family Planning to the World's Poor", held in Sri Lanka in February 1977.

The IGCC Expert Meeting on Comparative Fertility Research in Sterilization and Postconceptive Regulation was sponsored by IFRP. This meeting was held in Bali, Indonesia in January 1977, and one of the main themes of this meeting was penetration and dissemination of services to the rural poor.

During this period the Asia Area Coordinator represented IFRP at the IDRC Meeting in Singapore. She also visited contributors in Malaysia, Singapore, Korea, the Philippines, Indonesia, Sri Lanka, and Bangladesh.

Numerous papers were prepared from data collected in Asian centers (see Appendix C).

### Latin America

From October 1 to March 31 the Latin American contributor network continued to expand. An Assistant Area Coordinator position was filled, and another Assistant Area Coordinator is being recruited.

As of March 31 the Latin American area comprised the largest number of research centers in the IFRP contributor network. At present there are 77 centers active in Latin America, handling a total of 112 studies. The location of centers, the names of contributors, the types of studies, and the flow of forms are indicated on the Study Status List for Latin America.

The regional program in Colombia, Programa Regional de Investigaciones en Fecundidad (PRIF), is now fully operational. It began data collection activities on March 4 for 46 hospitals throughout the country. PRIF conducted its first in-country seminar on March 4, and the Program is now preparing an international seminar partially funded by IFRP which will be held April 18-20, 1977.

In addition to IFRP's usual research activities several special projects were initiated. The Rural Health Penetration Program Evaluation was analyzed at the request of the Maternal and Child Health Department of the Ministry of Health of El Salvador. In cooperation with IPPF/London, evaluation of Depo Provera was begun at two centers in Honduras. The Family Planning Clinic Record (FPCR) pretest was initiated at the Asociación Demográfica Salvadoreña in El Salvador in cooperation with IPPF/New York.

A minimum voluntary surgical contraception form was developed and is being pretested in Mexico at the request of the Maternal and Child Health and Family Planning Department of the Ministry of Health. Two of IFRP's contributors have been engaged in basic human reproductive research with technical assistance from

IFRP staff members. Dr. Jaime Zipper from Chile is conducting research on the measurement of electropotential differences using copper zinc IUDs with the metals located in different positions on the vector to optimize the battery concept. Dr. Zipper is also conducting animal studies using quinacrine pellets to obtain an improved delivery system. Dr. R. Quinones from Mexico is developing improved equipment for hysteroscopy, especially cervical adaptors.

During the six months covered by this report, the Area Coordinator for Latin America acted as a consultant to the Ministry of Public Health in El Salvador (Rural Health Penetration Program), acted as consultant to the American Public Health Association for the evaluation of the IPAVS project, and together with the Associate Director for Technical Services served as consultant to the Mexico National Family Planning Coordinator and the Mexican Social Security Service Medical Department.

During this report period, the Area Coordinator attended the AID/Washington meeting on Voluntary Surgical Contraception, traveled to Mexico to attend the World Congress of Gynecology and Obstetrics, to El Salvador with the Head of the Information Processing Division and Ms. Dobrovir from AID/Washington to conduct a partial evaluation of IFRP activities in that country, to Airlie, Virginia on two occasions as a technical resource person and speaker for the Inter-American Dialogue Center at a meeting on Extension on Non-Surgical Contraception Services and later a meeting on Extension of Surgical Contraceptive Methods. He traveled to Washington, D.C., to attend the Population Officers Conference and twice to Mexico City with the Associate Director for Technical Services: once as a resource person for the National Family Planning Coordinator, and again by invitation of the Mexican Social Security Institute.

The Assistant Area Coordinator traveled to Airlie, Virginia to attend a meeting on Extension of Surgical Contraceptive Methods and to Honduras, Guatemala, El Salvador, and Mexico to monitor and initiate studies and contact new contributors. Latin American AID Population Officers and Central American contributors were visited personally during this travel. The Population Officers continue to be kept abreast of IFRP activities in their individual areas.

Six Latin American contributors visited IFRP headquarters during this report period: Dr. Guillermo Lopez-Escobar and Dr. German Riano from Colombia, Dr. Joaquin Nunez from Honduras, Dr. Vernon Madrigal, Dr. Angel Quan, and Dra. D. de Badia from El Salvador. Dr. Milton Nakamura, a potential contributor from Brazil, also visited IFRP. The first data collection coordinator from Latin America, Mr. Luis F. Rojas Gomez from Bogota, was trained at IFRP. In addition, two staff members from ADS, Center 821, El Salvador, came to IFRP to be trained in the use of the Family Planning Clinic Record.

The following contributors were completely or partially funded to attend meetings during this six-month period: Dr. J. Zipper, Chile and Dra. D. de Badia, El Salvador to the World Congress of Gynecology and Obstetrics in Mexico City; Dr. M. Medel and Dr. G. Schramm, Chile and Dr. L. Galich, Guatemala to the International Family Planning Research Association meeting in California; Dr. Angel Quan and Dr. V. Madrigal, El Salvador and Dr. J. Nunez from Honduras to the American Association of Gynecological Laparoscopists in Atlanta.

During this report period, 12 research papers were prepared on data from Latin American centers (see Appendix C). Some have been published and others are in press.

#### Iran, Pakistan, and Dubai

In January 1977, the Area Coordinator for Iran, Pakistan, Dubai and the USA also assumed the duties of coordinating IFRP activities in Canada, Australia and New Zealand.

The above areas include 28 centers which are involved in 44 studies. Information relative to center locations, contributor names, and nature and size of studies can be found in the Study Status List for these countries (Appendix A).

The Pakistan program will continue expanding. Of the six ongoing studies, three are near completion. In his February-March field trip, the Area Coordinator clarified the status of our research contacts with various institutions with the Government of Pakistan and obtained approval for conducting research studies. In Pakistan we are now focusing our research activities at four major centers which are all medical-school affiliated hospitals. Plans are to build

these four centers so that several collaborative studies can be carried out at each of these hospitals. Based on responses from the contributors, great emphasis is being given to Female Sterilization, the Maternity Record, and Hospital Abortion studies in Pakistan.

In Iran our strategy continues to be to encourage centers to support the local cost of our collaborative studies from their own funds. The pretest studies of the Family Planning Clinic Record (FPCR) ended, and a Status Report was prepared and presented to the Under Secretary of Health for Population and Family Planning and his senior staff. These representatives of the Iranian Government indicated an interest in taking the next step and introducing the FPCR system in some 30 centers in Iran.

The Institute for Protection of Mothers and Newborn in Iran has reviewed the IFRP Maternity Record and has indicated that they will be willing to routinely use the Farsi version of the form at the Farah Maternity Hospital. The Institute is also using the services of a few IFRP-trained nurse-midwives in performing menstrual regulation. Studies of the use of nurse-midwives in performing menstrual regulation in Isfahan continued during this period, and a new comparative menstrual regulation study, using physicians versus nurse-midwives, was initiated.

In Dubai a Maternity Record Pretest Study was completed at Dubai Medical Center. Contacts have been made with other hospitals in Dubai and collaborative studies are expected to be conducted there.

#### USA, Canada, and Australia

In the United States close monitoring has been maintained on studies of the Vaseal unit for male sterilization. We have continued our strategy of having the centers support the local cost of these collaborative studies from their own funds.

The retrospective Anderson Leaf IUD study began and the recording of these data were completed successfully during January-February 1977. A total of seven studies are underway in these countries, and expansion of our network in Canada and Australia is expected.

The IFRP provided travel support for one contributor from Iran and one contributor from the USA to various meetings (Drs. Mehdi Loghmani and Joseph Davis). Also, travel support was provided for Dr. Rhodes to fly from Santa Barbara to Eureka, California for a one-day training session in the Schmidt vasectomy technique. During this six-month period the Area Coordinator attended the APPP meeting in November 1976 and traveled to Iran, Dubai, and Pakistan during February-March 1977 (please see the Field Trip Report for details).

Data sets from six studies have been reviewed and research papers have been prepared from some of these (see Appendix C).

#### The Middle East

Egypt is now the most active area in the Middle East, but it is anticipated that IFRP research activity will increase in Jordan and Tunisia. Morocco will be a new addition. Unfortunately, studies at the American University in Beirut, Lebanon, have been halted by civil war. At present there are 12 active centers in the five major universities in Egypt: Cairo, Al-Azhar, Ain-Shams, Alexandria and Assiut. The names of contributors, the types of studies, and the flow of forms are indicated on the study status list for Egypt (see Appendix A).

Several female sterilization studies of different techniques are being evaluated. At Cairo University a new approach consisting of a minilap incision and laparoscopic visualization of the tubes referred to as open laparoscopy was demonstrated by the originator of this procedure to IFRP staff members visiting the center in February 1977. He also demonstrated the applicability of a modified sigmoidoscopic instrument developed at IFRP. Currently this instrument is being modified in cooperation with Cairo University. At Ain-Shams University, the vacuum cap (vacu-lap) technique to deliver the tube and apply the tubal ring through a minilap or vaginal colpctomy is being modified. The IFRP has also assisted in the prototype design of this equipment and its ancillary instruments for female sterilization. At Al-Azhar University, the double ring tubal applicator was evaluated and is currently being used in their sterilization program at Al-Gala Maternity Hospital. The University of Alexandria is an established sterilization training center. The laparoscopic tubal ring procedure is a recent addition.

All five major universities in Egypt participated in pretesting the IFRP/FIGO Maternity Record.

At Al-Azhar a series of IUD studies of different designs of plain and medicated IUDs, with careful monitoring and quantification of blood loss in all patients, are well underway. Retrospective IUD studies with hystero-graphy have been completed at Cairo University, and the IFRP is providing Dr. Kamal with editorial assistance in preparing an atlas based on these studies. At several centers, new IUD designs are being compared to standard ones. New IUDs include the TR-10, the TR-11, the Multiload, the modified tapered and photo-reduced Lippes loop, and the modified Lippes loop with silastic projection for immediate postpartum use. The Hasson sound is being evaluated for uterine measurement before IUD insertion in both the modified tapered and photo-reduced Lippes studies.

Studies of prostaglandin analogues in vaginal suppositories for pregnancy termination were conducted at Ain-Shams and Assiut Universities. One study to evaluate the Battelle hand pump is underway at Cairo University.

Regionalization efforts are progressing in Egypt. As a preliminary step, an IFRP staff member visited and contacted possible computer facilities. Also, the Egyptian Fertility Control Association is planning to devote a session to "IFRP Contributors" as part of their fourth conference in June 1977 to emphasize regionalization. A data collection coordinator was trained for three weeks at IFRP offices and spent an additional week touring pertinent centers in the USA.

The Household Distribution of Contraceptives Study is progressing well in Tunisia. A similar study, as well as Maternity Record Studies, are planned in Morocco. Mr. Mezri Chekir, the President and Director General, National Office of Family Planning, Tunis, Tunisia, visited IFRP in October of 1976.

In February 1977, the Area Coordinator visited Jordan to contact contributors and initiate Female Sterilization and Maternity Record Studies at the Jordan University Medical School Hospital and Aschrafia Hospital of the Ministry of Health. Three Egyptian contributors visited IFRP headquarters during this period: Dr. Hefnawi of Al-Azhar University, and Drs. Kamal and Badawy of Cairo University.

## Africa

The Sudan is the most active contributor country in Subsaharan Africa. Extensive studies of inevitable, incomplete, and septic abortions comprising over 3,000 cases reported on IFRP forms were the subject of a completed doctoral thesis. Another doctoral thesis based on over 4,000 maternity cases which have been computer processed is in the analysis phase. A third doctoral thesis based on a field study of comparative Minovral and Neogynon contraceptive pills and their effect on liver function tests has been initiated and is in the field work phase.

An IPAS Seminar on "New Developments in Contraceptive Technology" was held prior to the Vth Sudanese Congress of Obstetrics/Gynecology. The Area Coordinator participated by presenting three papers and demonstrating the minilap technique using tubal rings at Soba Hospital. A number of IFRP staff members participated in both the seminar and the congress meeting. Currently there is one study recording vaginal colpotomies at Khartoum North Hospital. A comparative study of the Cu-7 and the Lippes Loop D is active at the Omdurman Maternity Hospital.

Other countries in Africa conducting IFRP studies include Nigeria, Ghana, and Zambia. In Nigeria, four studies are underway--the evaluation of the Battelle hand pump, a comparison of laparoscopic and minilap procedures of female sterilization, a comparative Cu-7 and Lippes loop inserted by doctors compared to nurses, and a comparison of menstrual regulation performed by nurse-midwives vs. doctors. Nigeria participated in the pretest of the Maternity Record. A Data Collection Coordinator was trained at IFRP to improve data collection and to further assist in the development of the Ibadan Fertility Research Programme. Both Ghana and Zambia participated in pretesting the Maternity Record. In Ghana, a study to evaluate the Battelle hand pump is planned.

It is expected that female sterilization will get more attention and that the number of centers participating in this area will increase. The Sudan Fertility Control Association has been making substantial progress towards regionalization.

During this reporting period, the Area Coordinator for the Middle East attended the 5th Annual Clinical Symposium on Gynecologic Endoscopy, the Surgical Contraception Session, State Department, AID, Washington, D.C., and the Vth

Sudanese Congress on Obstetrics and Gynecology. Visitors from Africa included Dr. Ojo of Nigeria and Drs. Rushwan, El-Nayal, Gerais, and Hassanin of the Sudan. Further exploratory visits are needed to expand IFRP activities in Africa.

#### England

Female sterilization studies comprise the largest IFRP involvement in this area. Studies comparing the Rocket Clip and the tubal ring are in progress at four centers, and one center is currently testing the Waters low-voltage thermo-coagulation unit. Three other centers will be evaluating the PIEGO double ring tubal applicator.

Other areas of research include pregnancy termination by prostaglandin and urea induction augmented by oxytocin and the evaluation of the Lau pregnancy test in a menstrual regulation study. An IUD study of the Lippes loop and Cu-7 inserted within five days after unprotected coitus is currently being evaluated at one of the British clinics. Negotiations are underway to establish a network of Maternity Record Studies for 1977 in England, Ireland, and Wales.

Dr. Lieberman of Saint Mary's Hospital, London, visited IFRP during this period.

#### United States

On-going female sterilization studies include laparoscopic electrocoagulation, spring-clip, and tubal ring techniques of tubal occlusion.

#### Training Activities

One of the tasks of the Office of Research and Training has been to introduce the development of new and improved contraceptive technologies to the network of contributors and to offer training in the use of those methods which have proven to be safe and effective. To validate the ongoing scientific research in the field, the various studies are coordinated and conducted through a network of skilled clinicians. To augment this research, on-site clinical training has become an integral adjunct to assist physicians throughout the less developed countries (LDCs) in utilizing the newest family planning concepts and surgical techniques/instrumentation which they might otherwise be reluctant to pursue. Through the coordination of research and training, the delivery of viable family planning health care services hopefully will be accomplished.

The Director of Research and Training has made three extensive field trips (two to the Far East and one to Latin America) for the purpose of training field investigators or contributors on-site or through the LDC medical schools in the most current advances in contraceptive technologies and surgical techniques/instrumentation.

An intensive two-week training program was conducted in Bangladesh during September 1976 to introduce the minilap tubal ring method of female sterilization. At the request of the Government of Bangladesh, physicians in the Departments of Obstetrics and Gynecology of eight Bangladesh medical schools were trained in this new advancement for tubal occlusion. In the six to nine months subsequent to this on-site training, Bangladesh has made significant progress in providing voluntary sterilization with a quick, safe, and effective surgical procedure that can be performed on an outpatient basis. Similar training has been conducted on a smaller scale in India, Iran, Indonesia, Nepal, Nigeria, Ghana, Egypt, Thailand, and the Sudan.

#### Regional Development Activities

At the time of the last report, there were three established and operational country Fertility Research Programs: the India Fertility Research Programme, the Sudan Fertility Control Association and the Bangladesh Fertility Research Programme. The Programa Regional de Investigaciones en Fecundidad (PRIF) has been formed and an agreement of association with the IFRP, signed. Computer programs have been prepared for transfer to PRIF. The IFRP Head of Data Processing is scheduled to visit PRIF in Colombia April 19 through 23 to effect the transfer. A Data Collection Coordinator from PRIF undertook training at IFRP during the month of December 1976.

In January, on the occasion of the meeting of contributors at the Expert Meeting of the Inter-Governmental Coordinating Committee (IGCC) in Bali, the Indonesian contributors formed the Indonesia Fertility Research Program. A Memorandum of Understanding was signed with the chairman and a Data Collection Coordinator will soon be trained at IFRP.

Also in January, a Memorandum of Understanding was signed with the Korean Institute of Family Planning (KIFP). The Director is in the process of coordinating activities of IFRP contributors and several investigators in the Ministry of Health. This will be the core group of a Korea Fertility Research Program which will be under the sponsorship of the KIFP.

During this reporting period, discussions were held with the Director of the Institute of Post Graduate Medicine (IPGM) in Sri Lanka concerning the establishment of a Sri Lanka Fertility Research Programme. The first steps have been taken with the coordinated activities of contributors at three hospitals who will initially use the Maternity Record and centralize the flow of forms through the IPGM.

Discussions in Manila, the Philippines, were delayed due to staff realignments at the Commission on Population. However, discussions with the Davao Medical Association in Davao City may lead to a Provincial fertility research program centered there.

Since October 1976, Data Collection Coordinators from Nigeria and Egypt have been trained. The following countries now have trained Data Collection Coordinators working in associated country fertility research programs or in countries in the process of establishing such programs associated with the IFRP: India, the Sudan, Bangladesh, Colombia, Thailand, Egypt, Korea, and Nigeria. Arrangements are being made to train further Data Collection Coordinators from Bangladesh for selected individual data reporting centers. This training will be done in India. In addition, Data Collection Coordinators will be trained at the IFRP from the Philippines and Sri Lanka.

Selected computer programs are being transferred to PRIF in Colombia. Selected programs are operational in India on an IBM machine at the Delhi University. A Burroughs 6700 has been installed at Jadhaupur University, Calcutta. In May, the Director of Data Processing Services (DPS), Calcutta, will visit the IFRP and plans are being made to transfer IFRP computer programs to Calcutta through the DPS.

The Thailand pretest of sending data to the IFRP in diskette format proved successful. It will be recommended for surveillance-type, no-query studies. Transferring data to IFRP on tape or diskette (keypunched in the various countries) will avoid the forwarding of large volumes of forms to be keypunched at IFRP.

During January and February, a survey was made of government and private organizations to identify points at which keypunching of data to tape or diskette can be arranged and undertaken locally for country fertility research programs. It is feasible in Korea, the Philippines, Indonesia, Thailand, Bangladesh, Sri Lanka, Egypt, and the Sudan. Pretests, transferring data on tapes to the IFRP, will be undertaken during 1977.

The transfer by tape of data to the IFRP Burroughs computer is a first step in utilizing local technology. The transfer of computer programs from the IFRP to locally available computers depends on machine compatibility or specially developed programs. Two main trials will be made this year--transferring programs to the Burroughs machine in Calcutta for the India Fertility Research Programme and to an IBM machine in Colombia for PRIF.

On the other hand, data on tapes sent to the IFRP can be edited and cleaned and such a clean tape returned to the country FRP for local use with available packaged computer programs. In this way, limited analysis of locally generated data can be undertaken in each country, with IFRP Standard Tables sent along with the tape to provide an initial analysis. It is projected that this system will be pretested by early 1978.

Basic funding for country FRPs continues to be reimbursement for costs of forms submitted to IFRP. Funds, however, for the India Fertility Research Programme are now available and the Church World Service has approved funds for the Fertility Research Unit of the Christian Medical Association of India. In February, the Government of Bangladesh proposed some modifications to the Bangladesh Fertility Research Programme proposal for funding. These are in process and it is expected that the proposal will move forward to international donor agencies later in 1977.

## India Fertility Research Programme Report

The India Fertility Research Programme currently has 43 centers conducting research in the states of Uttar Pradesh, Tamil Nadu, Karnataka, West Bengal, Maharashtra, Gujarat, Delhi, Kerala, Mysore and Andhra Pradesh. The centers vary from small clinics in rural areas to sophisticated teaching hospitals and are presently handling a total of 107 studies.

The Fourth India FRP Contributors' Conference was held in Bombay on February 24, 1977 immediately following the First Asian Congress of Fertility and Sterility. It was inaugurated by the Minister of Health, Dr. Leon de Souza, and Dr. Howard Taylor was the Chief Guest. The papers were edited and distributed to the participants several days before the conference. As a result, only summaries were presented at the meeting, and the time was better utilized in lively and useful discussions. The conference was attended by about 200 people, and the papers were of a high quality.

The Annual General Body Meeting was held according to the rules and regulations of the Association, and a new Executive Committee and office-holders were elected for a period of two years.

Most of the data in India are being analyzed at the Delhi University Computer Centre, which is operational. However, the programs are now outdated, and plans are underway to install our programs at the Jadhaupur University Computer Centre where a Burroughs 6738 computer has been recently installed. The data analysis will be undertaken by Data Processing Service (DPS) and will have the additional advantage of proximity to the Calcutta office of the India FRP.

An evaluation of Community-Based Contraceptive Distribution has been recently initiated in Howrah district. The Project aims to distribute oral contraceptives as widely as possible among the 390,000 eligible couples in this region. This should serve as an excellent demonstration of a distribution system which could be used to advantage in the National Family Planning Programme. Studies in newer research areas, such as the Rural Health Penetration Program Evaluation and Family Planning Clinic Record, are currently under discussion and should be initiated in the near future.

Five Indian contributors visited IFRP, Research Triangle Park, on their return from Mexico City after attending the VIII World Congress of Gynecology and Obstetrics: Dr. B. N. Purandare, Dr. C. L. Jhaveri, Dr. Duru Lilaram, Dr. Rohit Bhatt, and Dr. Geeta Pandya. Three of our contributors, Dr. D. J. Reddy, Dr. D. N. Pai, and Dr. Ramdas Pai, who are pioneers in extending family planning to rural areas, participated in the Workshop on "Taking Family Planning to the World's Poor", which was held in Colombo on February 17-18, 1977. Their contribution was most practical and valuable.

Several of our contributors have successfully conducted sterilization camps in rural areas, particularly in the last few months. However, it must be stated that all our contributors firmly believe in voluntary sterilization, and have taken every precaution to ensure that they not participate in any sterilization procedure by coercion. The tubal ring laparoscope has aroused considerable interest among government family planning officials, and they are investigating the availability of this equipment for the National Programme.

Dr. Poursu Bhiwandiwalla is a consultant to the India FRP in addition to her duties as Staff Gynecologist. In November 1976, she attended the conference on "Clinical Symposium on Gynecologic Endoscopy" sponsored by AAGL and presented a paper on "Laparoscopic Sterilization in a Rural Area". In February 1977, she presented a paper on "Review of Tubal Surgery for Reversing Sterilization" at the First Asian Congress of Fertility and Sterility, Bombay. She was the organizing secretary for the Workshop on "Taking Family Planning to the World's Poor" held at Colombo, and along with the chairman and convener prepared a paper based on the proceedings for presentation at the Tokyo International Symposium. She also participated in the India FRP Contributors' Conference in Bombay.

This has been a good period for the India FRP and considerable progress has been made. Thirty papers have been prepared in the last six months on the data collected by our contributors, and they will be published very shortly.

### III. DESIGN AND ANALYSIS ACTIVITIES

During the past six-month period a research assistant for the Maternity Record and an administrative assistant were added to the Design and Analysis (D&A) staff.

The following is a list of forms and protocols which have been developed since October 1, 1976:

- Menstrual regulation instruction manual
- Menstrual regulation form (Spanish)
- Protocol for menstrual regulation studies
- Form and instruction manual for the evaluation of negative pressure bottle equipment used in menstrual regulation
- Method list for comparative cannulae study
- Special form for dilation studies
- Hospital abortion record (English and Spanish)
- Pregnancy termination instruction manual
- Pregnancy termination form (French)
- Instruction manual for pregnancy termination surveillance study
- Maternity record form (Spanish and French)
- Revised forms for IUD studies (English and Spanish)
- Form for retrospective IUD study at the Ljubljana, Yugoslavia Family Planning Institute
- Form and protocol for male sterilization comparative study
- Method list for Vasector (male sterilization) study
- Form and instruction manual for female sterilization surveillance study
- Form and protocol for female sterilization acceptability study
- Form and protocol for topical anesthesia (female sterilization) study
- Forms for systemic studies (Spanish)
- Grid for recording daily symptoms in systemic contraceptive studies
- Pregnancy confirmation form (Spanish)
- Capillary pregnancy test method list
- Death report (Spanish)

The following analysis systems were finalized and sent to the Data Processing Division for implementation:

- Loading system for prostaglandin (vaginal suppositories) studies
- Loading system for incomplete abortion form
- Standard tables for incomplete abortion studies
- Loading system for hospital abortion record
- Loading system for new maternity record
- Loading system for new IUD form
- Standardized IUD rates
- Loading system for retrospective IUD studies
- Loading system for chemical female sterilization (quinacrine) studies

Addendum to female sterilization loading system for pregnancy  
confirmation form information  
Loading system for female sterilization surveillance study

A large-scale literature search was undertaken to obtain all available articles on tubal surgery for reversal of female sterilization. Pertinent data from each article were recorded and coded for computer analysis. A set of tables specifically concerned with experimental and clinical results of reversal of sterilization procedures was drawn up. For future research, it was recognized that only through a standard method of collection and analysis could accurate comparisons be made concerning the relative reversibility of certain sterilization methods, the most effective surgical reversal procedures, and the value of specific operative techniques. A set of standard IFRP forms for a complete study of this type was designed and drafted and its components include admission, preoperative and operative procedures, follow-up, and pregnancy confirmation forms.

The following summaries highlight the major findings during the past six months in each of the IFRP study areas.

Menstrual Regulation

Recent data continue to demonstrate the safety and effectiveness of the MR procedure when performed by vacuum aspiration.

Early data from a comparative study of menstrual regulation performed by physicians and by nurse-midwives show similarly low complication rates for both types of operators.

A study of the durability of four different menstrual regulation kits (Rocket, Burnett, IPAS and IPAS with Battelle O-ring modification) showed that the syringes from the IPAS kits could be used for the largest number of procedures (mean = 84.3), that the O-ring modification substantially lowered their performance (mean = 34.7 procedures), and that Rocket and Burnett kits lasted for an average of 51.7 and 80.8 procedures, respectively. Differences in the durability of cannulae were much less marked; cannulae produced by the three manufacturers were usable for approximately 24 procedures each. The same study compared durability of the different kits when cleansed with two different soaps and three different disinfectants. Syringes were washed with soap and water and

not sterilized. Neither soap (Gamphen or C.S.O.) appeared to reduce the durability of the syringe. However, cannulae washed with Gamphen before sterilization appeared to last longer and be more sterile than cannulae washed with C.S.O. None of the disinfectants (Milton, Cidex, Chlorhexidine) performed well (29.3 percent of all bacteriological cultures taken were positive), but Milton performed noticeably worse than the other two with 35.6 percent showing positive cultures.

A large study was initiated to evaluate the capillary pregnancy test developed by Dr. Lorrin Lau of the Johns Hopkins Medical School. One thousand cases in each of four centers are being studied to evaluate the test for women in all stages of pregnancy. However, the emphasis of these studies is on evaluating the test for women who are no more than 14 days past the expected onset of their menstrual periods. One center is evaluating the test for use with infertility patients before missed menses. Data from these studies will be available for analysis in early 1978.

Analysis of data on 100 mg of progesterone administered intramuscularly to women whose menstrual periods were delayed by no more than 14 days showed that the hormone is ineffective for inducing uterine bleeding. Women who were administered progesterone generally menstruated later than women who were not administered progesterone. The uterus was evacuated by suction curettage if bleeding had not occurred within 10 days of the initial visit.

Analysis of the 12,895 menstrual regulation procedures in which patients' menstrual periods were delayed by no more than 14 days and in which both the initial pregnancy test and microscopic histopathological analysis of the uterine aspirate were performed showed that the percentage of patients who were pregnant varied from 27.8 at one day of menstrual delay to 84.1 at 14 days of delay. The rate of significant complications (defined as suspected or confirmed uterine perforation, cervical laceration requiring suture, shock, apnea, more than 100 ml blood loss, prolonged or heavy bleeding requiring sharp or suction curettage, fever requiring antibiotics, pelvic infection, retained products or failed procedure) was 2.5 per 100 procedures in the first week of menstrual delay, and 4.2 in the second week. While the rate of failed procedures is generally only slightly more than 1 percent, it is often higher with inexperienced operators.

### Pregnancy Termination

The following criteria were used to compare the performance of four experienced physicians in aborting first trimester patients (N=1,099) by vacuum aspiration with flexible and nonflexible cannulae: (1) frequency of cannulae obstructions, (2) amounts of retained tissue obtained by sharp curettage after vacuum aspiration, (3) estimated blood loss during the procedure, and (4) cannula time. Discriminant analysis methods were used. Differences in these criteria were stronger among physicians than between the cannula types. However, even when the differences were statistically significant, the levels of performance of each physician measured by each criterion using either cannula were all well within acceptable ranges of safety.

A study of 3,263 women receiving treatment for incomplete, inevitable, or threatened abortions in three Khartoum hospitals from 1974 to 1976 suggests that postabortion contraceptive counseling combined with the impact of the abortion experience results in acceptance of "effective" contraceptive methods (orals, IUDs, and sterilization) by nearly 50 percent of those followed up.

The repeated administration of vaginal suppositories containing 1 mg 15(S)-15-methyl PGF<sub>2α</sub> (Tham) successfully induced abortion in 60 of 62 patients. Among patients who successfully aborted, the mean abortion time was 19.0 hours. The mean abortion time was not related to gestational age or parity. Within 24 hours, 85.5 percent aborted and within 48 hours 96.8 percent aborted. Gastrointestinal side effects occurred for 33.9 percent of the patients. Diarrhea was the most frequent side effect. The abortion was complete for 40.3 percent of the patients (see Appendix D).

The results of a study to evaluate the effects of serial, long-acting paracervical blocks on the abortifacient efficacy of intraamniotic PGF<sub>2α</sub> (40-20 mg dose schedule) and intraamniotic 20% hypertonic saline indicated:

1. Among the PGF<sub>2α</sub>-treated patients who were administered paracervical blocks, there was a significant reduction in the rates of gastrointestinal side effects and incomplete abortion, and a reduction in the instillation to abortion interval compared to patients who were not administered paracervical blocks.

2. Rates of side effects, incomplete abortion, and cumulative abortion were similar for patients aborted with hypertonic saline independent of whether they did or did not receive paracervical blocks. (Data collection and supplies for this study were supported by the Upjohn Company.)

From the records of over 4,000 subjects undergoing mid-trimester abortion by hypertonic saline at a single hospital, two specific projects were pursued. The first was a study of the relationship between fetal size and gestational age as determined by physical and ultrasonic measurements. The second included information regarding the absence of chronoperiodic response following intra-amniotic instillation of the hypertonic saline. Also, risks and benefits of this and other pharmacological methods of inducing midtrimester abortion were analyzed and reported.

#### Maternity Record

In October 1976 the results of the Maternity Record Pretest were presented at the FIGO Meeting in Mexico City. Subsequent analysis of this pretest have been prepared and distributed to the contributors. These appear in Supplement B to this report. Based on the suggestions of a FIGO Committee at the Mexico meeting and of other reviewers, the pretest form has been revised. An instruction manual for this new form has been completed in English and Spanish. A Maternal Mortality Record, a Perinatal Mortality Record, and a Maternity Record Supplement Form are being developed. Standard computer output tables are currently being developed for the revised form.

The pretest form is being used to record information on all births at Kandang Kerbau Hospital in Singapore in 1976. The analyses of these data will be completed by the early fall.

Professor Hubert de Watteville, Dr. Elton Kessel and Dr. Roger Bernard met with members of the Family Health Division of WHO in Geneva and initiated a dialogue that should lead to a further revision of the Maternity Record for use in 1978 that will be approved by FIGO and WHO.

### Intrauterine Devices

Menstrual blood loss was evaluated in 200 women receiving a U-coil intrauterine contraceptive device loaded with the antifibrinolytic, tranexamic acid (AMCA). The AMCA-loaded U-coil has a core containing 38 mg of crystalline tranexamic acid loaded with a silastic tube 52 mm in length, with an inside-outside diameter of 1.57-2.41 mm. The daily release rate of tranexamic acid was determined to be 4.3 µg with an initial high release of 29.0 µg. This group of women was compared to a similar group previously fitted with a copper loaded U-coil. There were no pregnancies reported in either group, and expulsions were minimal. The six-month removal rates for the tranexamic acid U-coil group was 1.1 per 100 acceptors. The corresponding figure for the copper comparison group was 9.9 per 100 acceptors. Reports of heavy menstrual bleeding were more prevalent at the one- and three-month follow-ups for the copper U-coil acceptors than for those using the AMCA loaded U-coil. There were no apparent differences at the six-month follow-up. The demonstrated capacity of tranexamic acid to reduce menstrual blood loss, based on perceptual reports, suggests that this agent can be valuable in increasing the acceptability and safety of intrauterine devices.

The long-term (six years) contraceptive effectiveness of the Cu-T-200 was evaluated based on 833 first insertions performed by physicians and nurse-midwives. IUD event rates (pregnancy, expulsion, pain/bleeding removal or removal for medical reasons) did not increase with increasing duration of use. The results of the study indicate that the Cu-T-200 is a safe and effective contraceptive for at least six years after insertion.

A comparative trial of the Ypsilon and Lippes Loop D IUDs was terminated because of the high expulsion rate for the Ypsilon IUD. Other event rates were similar for the two IUDs. (This study was supported by the Syntex Corporation.)

In a three-way study of the standard, hydron-coated and ethylene vinyl acetate (EVA) IUMs, it was found that the soft EVA device was too easily expelled (51 percent by the end of one year). With the use of bleeding calendars it was determined that the standard IUM was associated with less bleeding than the hydron-coated device. Calcification of the hydron device led to a stiffer, less pliant device. The study was based on 100 cases in each group.

A random allocation technique was used to assign the standard IUM and the modified IUM to women (249 and 247 cases, respectively) who desired contraception immediately after an induced first trimester abortion. In an attempt to reduce bleeding associated with the standard IUM, the wishbone-shaped member that is molded into the base of the device was reduced in size. The results of this study indicate that the one-year discontinuation rates for pregnancy, expulsion, and bleeding and/or pain removal rates for the standard and modified IUM were not significantly different. Bleeding calendar data showed small differences between the bleeding variables for those using the standard or modified IUM. This study also indicated that at one year of use both versions of the IUD provided adequate contraception (1.2 per 100 women for the standard and 2.1 for the modified IUM), had excellent retention capabilities (0.8 and 0.4 per 100 women) and low bleeding and/or pain removal rates (5.6 and 3.0 per 100 women) when inserted in the immediate postabortion period.

Results from a study of 154 IUM insertions made within three days of treatment for an incomplete or inevitable abortion indicate low one-year net cumulative event rates for pregnancy (1.7 per 100 users), expulsion (7.2 per 100 users), and bleeding and/or pain removal rates (3.9 per 100 users). These rates were similar to those reported from a study of interval insertions of the IUM; these results also compared favorably with corresponding rates of postabortion insertions from studies using other devices.

Data from 252 insertions of the Cu-T-200 made by midwives and 646 insertions of the same device made by doctors were compared. Although the net cumulative one-year continuation rate for women who had a Copper-T inserted by a midwife is significantly lower than for women who had a Copper-T inserted by a doctor, there were no significant differences between the one-year event rates for the two groups of subjects. These data suggest that an expanded role for midwives in IUD insertion programs would be an efficient use of health personnel.

#### Male Sterilization

Evaluation of the Vaseal electrocoagulation unit for male sterilization has been undertaken at three centers in the United States and at one in El Salvador. One of the four contributors reported a high failure rate. Based on analysis of the preliminary data, it has been determined that the high failure rate was

unique to that center. Possible problems with the technique as performed at that center as well as with faulty equipment may have contributed to the failures. The contributor has received additional training in the technique by Dr. Stanwood Schmidt and the center has been provided with new equipment. A second center has stopped the study because they prefer the standard ligation method and because an increased number of patients had positive first semen tests; second semen tests were negative for these patients. The other two centers have reported no problems with the technique or equipment.

#### Female Sterilization

An analysis of 13,333 laparoscopies, with tubal occlusion by electrocoagulation, spring-loaded clip, or tubal ring, and 3,138 minilaparotomies, with tubal occlusion by ligation or tubal ring, performed for women who had not recently been pregnant documented that:

1. The combined rate of failed procedures in which both tubes were not successfully occluded or in which laparotomy was required were significantly higher for laparoscopy (0.5%) than for minilaparotomy (0.1%). Most of the failed procedures in the minilap group involved a simple change to an alternate ligation technique (1.2%), while the change to an alternate occlusion technique during laparoscopy required additional instruments (0.3%).
2. The rates of complications occurring during surgery were similar for laparoscopy (2.1%) and minilaparotomy (1.7%), but the nature and severity of these complications varied with both the approach and the tubal occlusion technique. Among laparoscopy patients, the total rate was highest for Rocket clip procedures (3.7%), significantly higher than those for cautery (2.0%) and the Hulka clip (0.9%), but similar to the rate for tubal ring (2.8%). Among minilaparotomy patients, the total surgical complication rate was significantly higher for tubal ring (3.2%) than for the Pomeroy (1.4%) procedures.
3. The pregnancy rates were higher for the prototype Hulka spring-loaded clip (about 2%) than for electrocoagulation, the Rocket spring-loaded clip, the tubal ring, and ligation (less than 1%). Ectopic pregnancies accounted for three of the eight pregnancies following laparoscopic electrocoagulation, but none of the pregnancies following sterilization by the other methods was ectopic.

When follow-up data on 8,483 women sterilized by laparoscopic electrocoagulation (5,097 cases) or application of spring-loaded clips (1,466 cases) or tubal rings (1,920 cases) were examined, it was found that:

1. The 12-month life table pregnancy failure rate among interval women was significantly higher among women sterilized by spring-loaded clip application (2.2 per 100 women) than among women sterilized by electrocoagulation (0.4) or by tubal ring application (0.6). The 6-month pregnancy rates among postabortion patients were also significantly higher for clip (2.6) than for cautery (0.7) or ring (0.0); 12-month data were not available. Among clip cases, the 6-month rates were significantly higher for postabortion patients than for interval patients. Half of the cautery failures were ectopic pregnancies, compared with one of the clip and none of the ring failures.
2. Rates of gynecologic surgery during the long-term follow-up period were low for all sterilization techniques and pregnancy status categories, and none of the surgical procedures was performed because of complications resulting from sterilization. There were no significant differences in the rates of women with one or more gynecologic abnormalities among interval or post-abortion patients during the time periods analyzed. No deaths related to sterilization occurred.
3. No consistent changes in menstrual patterns were observed among interval patients who had not recently used systemic contraceptives or IUDs. The majority of women reported no change in menstrual cycle parameters.

In two 300-case comparative studies of sterilization performed in women who had not recently been pregnant, laparoscopic electrocoagulation and tubal ring application were evaluated. The surgical complication rates of the two techniques were similar in both studies (2.7% and 1.3%, respectively, at one center and 2.0% and 3.4% at the other center). During one electrocoagulation procedure, the bowel was injured and laparotomy was required. In one study a significantly higher proportion of tubal ring patients experienced moderate or severe pain during the procedure (41.2%) when compared with the electrocoagulation patients (20.7%), but in the other study these rates were similar for ring (10.2%) and cautery (6.6%). Pain during the recovery period before discharge was significantly more frequent among tubal ring patients in both studies, while pain during the immediate period after discharge was similar for both techniques.

In an analysis of the first 2,035 laparoscopic sterilization procedures performed with local anesthetic at an outpatient family planning clinic, only one patient required hospitalization and laparotomy (because the aorta was punctured during placement of the Tuohy needle). There were no bowel or bladder injuries. In ten cases (0.5%) the procedure could not be performed via laparoscopy and in two cases (0.1%) an alternative tubal occlusion technique was

carried out laparoscopically. The pregnancy rate was 0.5 percent for electrocoagulation, 2.0 percent for the spring-loaded clip, and 0.9 percent for the tubal ring; ectopic gestations accounted for four of the seven pregnancies following cautery but none of those following clip or ring application.

Pooled data on 1,043 cases of posterior colpotomy demonstrated a major complication rate of 5.6 percent, including three cases (0.3%) each of bowel injury and pelvic hematoma and two cases (0.2%) of pelvic abscess. Culdotomy was abandoned and laparotomy performed in 16 (1.5%) procedures.

The safety and efficacy of the repeated transcervical instillation of quinacrine hydrochloride in a suspension of 5 ml of 2% lidocaine was evaluated in 200 patients; none of the patients used any adjunctive contraceptives. The potentially serious complications following the instillation were four cases of cortical excitation and one case of acute adnexitis. The second instillation was not performed for 16.0 percent, and the third instillation was not performed for 16.7 percent of the patients for medical and/or personal reasons. Fifty-one pregnancies were reported, 41 (80.4%) before completion of the three instillations. The results of this study show that the instillation schedule used is unsatisfactory for widespread use.

Analysis of data from several study areas illustrated that the provision of new technologies of fertility control that are known to be safer, simpler, and more effective may at first result in higher complication rates, particularly if training in the new techniques is inadequate. In one study of laparoscopic tubal ring application, the surgical complication rate was significantly higher among the eleven residents who performed an average of five procedures each (9.1%) than among the three department heads who performed an average of 58 procedures each (1.7%) or the three junior faculty members who averaged 19 procedures (0.0%). In another center performing laparoscopic sterilization, 9.8 percent of the 143 patients in the earlier study of electrocoagulation experienced surgical complications; however, in a later study none of the first 54 patients experienced complications during surgery and in several cases specific modifications of the technique to prevent complications were noted. Similar results were noted in menstrual regulation, pregnancy termination, and IUD studies.

### Systemic Contraceptives

Several studies on oral contraceptives (OCs) have been undertaken by IFRP. The correlation of their side effects with body weight, myocardial infarction, endometrial carcinoma, and ectopic pregnancy have been separately evaluated.

Experience with symptom grids used for the first time in the Seattle study indicated that this instrument is extremely useful in evaluating OC-related side effects. The symptom grid has been revised to permit optical reading. A loading system for the symptom grid has been finalized and sent to the Data Processing Division for implementation.

The following results were obtained from a study to evaluate the occurrence of breakthrough bleeding associated with the use of Norinyl 1/50, Norlestrin 1, and Ovral:

1. Norinyl and Norlestrin have similar patterns of breakthrough and withdrawal bleeding which differ from the patterns for Ovral. For Norinyl and Norlestrin, withdrawal bleeding started sooner after ingestion of the last contraceptive pill, and there was a higher probability of breakthrough bleeding than with Ovral.
2. The chance of breakthrough bleeding occurring when an oral contraceptive tablet is missed on the previous day is 0.017, 0.022 and 0.022 for Ovral, Norinyl and Norlestrin users. The chance of breakthrough bleeding occurring on the day after a contraceptive tablet is missed is increased by 13 to 16 times for each of the three OCs.
3. The average length of bleeding episodes after a contraceptive tablet is missed is slightly longer for Norinyl and Norlestrin (2.0 days for both) than for Ovral (1.7 days).
4. The probability of breakthrough bleeding following a missed pill was constant over the menstrual cycle for Ovral users, but for users of Norinyl or Norlestrin was higher in the middle 14 days of the cycle than in the first seven days. This suggests that Ovral rapidly creates a more uniform endometrium from the time that hormonal exposure is initiated, whereas with Norinyl and Norlestrin several tablets must be taken before this stability is achieved.
5. Women enrolled on oral contraceptives when grouped into three weight categories--underweight, normal weight and overweight--differed significantly in the incidence of the reported side effects. The lowest incidence of nausea, vomiting, breast discomfort and change in weight was reported by overweight women; and the highest incidence of cramps was experienced by underweight women.

Two studies were done in cooperation with Dr. Alan Treloar with information from the Menstruation and Reproduction History (MRH) Program. The first was a preliminary study of risks of post-pill amenorrhea, and the second was a study evaluating changes in menstrual cycle length and regularity after oral contraceptive use. It is expected that the latest MRH data, currently being updated through the collaborative efforts of IFRP and the University of Iowa School of Medicine, will yield pertinent information for IFRP's projected study of the long-term effects of tubal ligation on women's bleeding patterns.

#### Household Distribution

The IFRP is presently handling the data processing for two projects involving the household distribution of oral contraceptives. One project is ongoing and analysis of the data shows that approximately half of the women who are eligible to receive oral contraceptives (i.e. married women aged 15-44 with husband present, fertile and with no medical contraindications) accepted pills, but only 11.6 percent of these were actually taking pills at the time of the follow-up visit six months later. Of women who started taking pills, however, 56 percent continued. The major impediment to the initiation of oral contraception was lactation.

The second project is expected to be initiated in September 1977 and the IFRP's involvement has been in project design and development of forms.

#### Family Planning Clinic Record

An early version of the Family Planning Clinic Record was pretested in two centers in Isfahan, Iran. Beginning in November 1975, a Family Planning Clinic Record was completed for 100 new family planning acceptors in each center. Clinic personnel recorded follow-up information on the Follow-Up Record. In August 1976, clinic supervisory personnel completed a Status Report using the data that had been recorded on the Follow-Up Records.

Pretests of the present version of the Family Planning Clinic Record are now underway in two centers in Latin America under the sponsorship of the International Planned Parenthood Federation. One pretest began in January 1977 in Honduras. Family Planning Admission Records are being completed only for

Depo Provera acceptors. The other pretest began in February 1977 at the Asociación Demográfica Salvadoreña in San Salvador. Family Planning Admission Records are being completed for all family planning acceptors in this center.

#### Epidemiological Studies in Progress

• Long-term abortion sequelae study in Singapore. This historical prospective study tests the hypothesis that induced abortion is associated with long-term effects such as infertility and prematurity, spontaneous abortion and stillbirth in subsequent pregnancies. Patients at the Kandang Kerbau Maternity Hospital in Singapore during the years 1970-1975 were chosen for the study because induced abortion was legalized in 1970 and hospital records have been well-kept since. In addition, a sizable proportion of women had become pregnant after an induced abortion.

Data recording began in 1974. Data on approximately 3,000 women who had previously had induced abortions (cases) and 3,000 women who had live deliveries but not abortions (controls) were collected. About 4,000 of these returned to the hospital for an interview to supply missing information on obstetrical and gynecological events not taking place at Kandang Kerbau Hospital. Home interviews will be started soon to further increase the follow-up rate.

From the hospital records, a cohort of women was identified who were free from the "condition" (e.g. prematurity) but had the "characteristics" (i.e., induced abortion) for comparison with a similar cohort of women identified as free from both the "condition" and the "characteristic". These two cohorts are being "followed" through records (supplemented by interviews when necessary) to determine the incidence of certain reproductive events subsequent to induced abortion.

A computer loading system has been written and 1,000 records have been located for preliminary analysis. Presently being studied is the effect of the demographic characteristics of the woman on birthweight of the newborns before an abortion.

• Thromboembolic surveillance study. A hospital surveillance study has been initiated in the Singapore General Hospital to observe the number of hospitalized cases with thromboembolic disorders since the year 1971 when the hospital

started to computerize its discharge records. Similar studies may be done in Bangkok and Hong Kong. The intention of this study is to estimate the magnitude of these disorders in Asians, to examine the trend over time and to provide some preliminary information for design of a retrospective case-control study on the possible relationship between oral contraceptives and thromboembolic disorders in Asian women.

All patients discharged from the General Hospital from 1971 with any of the following diagnoses will be included in the study: peripheral or deep vein thrombosis of the legs (ICD codes 451 and 671), pulmonary embolism (ICD codes 450 and 673.9), myocardial infarction (ICD codes 410-413), stroke (ICD codes 430-438) and other unspecified thromboses (ICD codes 451.9, 452, and 453). For male cases, only available information on the discharge cards will be tabulated. For female cases, information from the hospital records will be abstracted, coded, and analyzed.

- The Howrah fertility study. A longitudinal study on fertility patterns and family planning program input was started in the Howrah District of West Bengal, India in 1968 when a community survey (Survey I) was conducted in the three neighborhoods (urban, slum, and rural) of the District to determine the need for family planning among the eligible women (about 5,000 women in total). Oral contraceptives (OCs) were subsequently made available free of charge.

Another community survey (Survey II) was conducted in the latter part of 1973 after funding for the free OC program was discontinued. The intention of this survey was to measure the impact of the OC program and at the same time to inform the eligible women about the availability of the menstrual regulation service in the clinics of each of the three neighborhoods.

The third community survey (Survey III) was started in November 1975, two years after the menstrual regulation service was introduced to this District, with the intention of measuring the demographic impact of the menstrual regulation service.

Presently data from the three community surveys and the records of the previous OC users are being linked and merged on magnetic tape for future analysis. Besides the results of a follow-up study of OC acceptors which was published in the International Journal of Gynaecology and Obstetrics 14:193-198, 1976, the following analysis is planned using this comprehensive data set:

1. The demographic impact of the free oral contraceptive program in Howrah District
2. Characteristics of OC users who dropped out of the free oral contraceptive program
3. Changes of fertility pattern in Howrah women after the implementation of the menstrual regulation program
4. Reliability of reproductive data among three repeated community surveys
5. Effect of child deaths on subsequent fertility patterns

• A computer-matched case-control study on IUD medical removals. Data were collected on 13,919 women wearing various types of intrauterine devices (IUDs). Of these 1,747 had discontinued IUD use for medical reasons, primarily bleeding and/or pain. This case-control study uses a computer to match women having medical removals of IUDs (cases) with those continuing use of IUDs (controls) by center, inserter, types and sizes of IUDs, date of insertion, and race, age, and parity of the users. The data are being analyzed to detect other possible risk factors associated with IUD medical removals. It is also intended to determine whether motivational factors (i.e., spacing or limiting family size) and accessibility to alternative contraceptives play a significant role in IUD "medical" removals.

• An epidemiological analysis of intrauterine contraceptive devices. Data on 13,919 cases (representing 270,092 woman-months of use) are being analyzed. One year gross cumulative life table pregnancy, expulsion and bleeding/pain removal rates are being calculated, and these rates are compared for women using different types of IUDs, with different biological and sociological characteristics and with different situational factors surrounding IUD insertions.

Preliminary findings show that younger and/or lower parity women tend to have higher expulsion rates and that lower parity women also tend to have

higher bleeding/pain removal rates. Analysis standardized for age and parity also show that:

1. Women who did not resume their menses after pregnancies, those with retroverted uteri, and/or those who previously practiced contraception tended to have lower pregnancy rates.
2. Women who have had no previous abortions, wanted additional children, were breastfeeding at the time of IUD insertion, did not resume their menses after their last pregnancies, had retroverted uteri or had their IUDs inserted by paramedical personnel rather than physicians tended to have higher expulsion rates.
3. Bleeding/pain removal rates tended to be higher for women who lived in an urban area, wanted additional children, and had anteverted/midpositioned uteri. Women with IUDs inserted by physicians also tended to have higher bleeding/pain removal rates than those who had IUDs inserted by paramedics.

These preliminary results were presented at the Workshop on Risks, Benefits and Controversies in Fertility Control, March 13-16, 1977, sponsored by the Program for Applied Research on Fertility Regulation, Northwestern University. The interrelationships and confounding effects of those variables shown to be related to one or more IUD event rates will be further delineated as the data base grows.

#### Future Epidemiological Studies

• Retrospective case-control studies on rare events. One study on the incidence of pregnancies (intrauterine and ectopic) following female sterilization using data from pooled IFRP female sterilization studies will be started soon. It has been learned that 49 out of 8,500 women undergoing laparoscopic sterilization conceived after sterilization. Pregnancies were also reported from women sterilized by other approaches (number to be determined). All women who conceived after a sterilization procedure will be selected and individually compared with three different sets of controls (women who did not conceive after sterilization):

1. The first set of controls will be selected by a simple random sampling: comparisons, with these cases would delineate the natural history of pregnancies following female sterilization.
2. The second set of controls will be matched on the basis of host factors: comparisons with these cases would delineate the

provider effect (center, route of approach, method of occlusion of tubes, etc.) on incidence of post-sterilization abortion.

3. The third set of controls will be matched on the basis of provider variables: comparisons with these cases would reveal whether even with a very rare event such as pregnancies following female sterilization fecundability of the women is still at work.
4. Differences between cases with intrauterine pregnancies and those with ectopic pregnancies will also be studied.

Another study on the possible relationship between use of oral contraceptives and thromboembolic disorders, hypertensive heart diseases, endometrial cancer, and liver tumors in Asian women is planned pending the results from the thromboembolic surveillance studies.

Based on findings from the straight, comparative and case-control studies, prospective studies on long-term adverse effects may be initiated.

As a part of the study of community-based distribution of contraceptives, epidemiologic input will be made to measure the need of the community and evaluate the efficacy, effectiveness, and efficiency of the distribution system.

Epidemiologic analyses of Maternity Record data and data on maternal and perinatal mortality will be initiated to examine trends and relationships with fertility control activities.

#### Consultant Reports

The following Consultant Reports were completed and sent to the Contributors:

<u>Contributor and Center Number</u>	<u>Title</u>
Dr. S. Etman Center 340	Analysis of the Depo-Provera Program, Family Welfare Center, Nairobi, Kenya, 1970-1974
Dr. A. Quan Center 823	Female Sterilization by Laparoscopic Electrocoagulation
Dra. Vilma H. de Aparicio Ministry of Public Health & Social Assistance, El Salvadore	Evaluación Preliminar del Programa de Penetración Rural

Contributor and  
Center Number

Dr. H. Rushwan  
Center 049

Dr. M. Loghmani  
Centers 305-306

Dr. G. Lopez-Escobar  
Center 810

Dr. I. S. Puvan  
Center 791

Title

Female Sterilization at Khartoum  
North Hospital

Analysis of a Pretest of the Family  
Planning Clinic Record in Two Centers  
in Isfahan, Iran

Laparoscopic Sterilization at the Hospital  
Materno-Infantil, Bogotá, Colombia

Female Sterilization at the University  
Hospital, Kuala Lumpur

#### IV. DATA PROCESSING ACTIVITIES

##### Personnel

This reporting period saw several major changes in personnel within the division. The former Head of the division was promoted to Associate Director for Technical Services, a new department described elsewhere in this report. The former Deputy Head was named Head, leaving the Deputy position intentionally vacant. The two other management positions in the division were retitled Programming Manager and Data Entry Manager from Lead Programmer and Data Programmer and Data Processing Supervisor, respectively. Following the movement of the former Data Processing Coordinator to Technical Services, there was a substantial realignment within the Data Entry Section. This movement meant retitling and reclassifying several positions within the division. The Data Processing Coordinator now reports to the Data Entry Manager along with three Data Processing Team Leaders, each of whom has specific responsibility for maintaining expertise in one or more IFRP study areas. These Team Leaders are also responsible for first level job preparation and writing routine programs in their areas, whenever necessary. Three of the former Data Processors were named as the three original Data Processing Team Leaders. In anticipation of the large volume of Maternity Record forms expected this year, as well as the increase in other forms flow, an additional Data Processor position was created and filled. A Programmer position which had been temporarily vacant was also filled to help with the increased demand from inhouse users for specialized jobs and assistance.

##### Hardware

The only significant hardware change during the reporting period was the addition of three new Perry Electronics PE9000 CRT's. These additional terminals provide each programmer and the Data Processing Coordinator with an individual terminal which has led to much better use of their time at a very small cost in hardware.

##### Software

Programs which were completed during this six-month period include the following:

Male sterilization clinical tables  
Female sterilization loading/editing (automatic correction)  
Long-term sequelae of abortions loading system (research)  
Tunisia household distribution  
A major modification to the IUD rates program which allows standardization of one or more variables  
A procedure for pooling all data for an individual area and for checking quality control  
Loading/editing system for the 1977 Maternity Record form (automatic correction)  
Loading/editing system for PGF<sub>2α</sub> vaginal suppository pregnancy termination system (automatic correction).

Programs currently in the development stages include:

Hospital incomplete/inevitable/threatened abortion loading/editing system (semi-automatic correction with automatic queries)  
Family planning clinic record loading/editing system (program evaluation)  
Major changes in the male sterilization system  
New accounting system for study proposal and forms tabulating  
Loading/editing system for a retrospective IUD study in Ljubljana, Yugoslavia  
Program to print labels for the IJGO journal.

#### Forms Flow

The forms flow during this reporting period continued a trend of stabilization or decrease in forms from the PT, MR, FS, and IUD areas but a significant increase in forms for the newer studies such as SC and the Maternity Record (Table V). We also had an increase in the number of forms for "Other Major Studies"; this represents a number of large special projects which are now being undertaken by the other divisions of IFRP. The number of forms from these special projects have accounted for the almost 100 percent increase in the monthly volume of forms processed by this division. This expansion is expected to continue, which is the main reason why we project the need for additional personnel in the Data Entry Section.

#### Six-Month Projection

It is anticipated that there will be a reorganization of the programming staff similar to that of the data processors. In addition, it is anticipated that at least one more Data Processor or Data Processing Team Leader position will be needed to absorb the large volume of Maternity Record and other special forms. We also anticipate that a Programming Librarian will be required to carry out many of the time consuming duties of maintaining the ever-growing

TABLE V  
FORMS PROCESSED AND AVAILABLE FOR COMPUTER  
ANALYSIS BY MAJOR STUDY AREA AND TIME PERIOD

Study Area	1972	1973		1974		1975		1976	1976-77	Total
	Jan-Dec	Jan-Jun	July-Dec	Jan-June	July-Dec	Jan-June	July-Dec	Jan-Sept*	Oct-Mar	
Pregnancy Termination	10 054	8 506	7 440	8 062	12 300	9 004	9 973	10 133♦	6 656	82 128
Menstrual Regulation	0	1 075	518	3 847	4 306	2 964	4 804	5 084	2 940	25 538
Female Sterilization										
Admission										
Pretest	1 007	2 880	98	0	0	0	0	0	0	3 985
Final	0	250	2 443	6 092	6 550	4 519	6 259	9 036	4 664	39 813
Follow-up/method list	0	0	0	0	2 905	3 088	8 098	9 562	6 020	29 673
Quinacrine	0	0	0	0	0	0	0	0	372	372
Intrauterine Device										
Admission	0	0	3 115	4 510	13 324	4 703	4 750	6 726	4 089	41 217
Follow-up/method list	0	0	3 000	6 445	14 577	6 016	10 656	15 043	12 181	67 918
Bleeding calendars	0	0	0	0	0	0	0	0	757	757
Male Sterilization										
Admission										
Pretest	0	498	0	0	0	0	0	0	0	498
Final	0	0	0	0	0	0	380	1 240	492	2 112
Follow-up/semen tests/ method lists										
Pretest	0	496	0	0	0	0	0	0	0	496
Final	0	0	0	0	0	0	435	398	833	1 666
Systemic Contraception										
Admission	0	0	0	0	0	0	593	390	1 036	2 019
Physical/symptomology	0	0	0	0	0	0	2 822	1 343	1 276	5 441
Follow-up	0	0	0	0	0	0	1 016	541	1 408	2 965
Maternity Record	-	-	-	-	-	-	-	-	-	-
Family Planning Clinic Record	-	-	-	-	-	-	-	6 419	10 035	16 454
Other major studies	-	-	-	-	-	-	-	-	4 841	4 841
<b>Total</b>	<b>11 061</b>	<b>13 705</b>	<b>16 614</b>	<b>28 956</b>	<b>53 962</b>	<b>30 294</b>	<b>49 786</b>	<b>81 343♦</b>	<b>107 948</b>	<b>393 669</b>

\* Nine-month period.

♦ Reported a 2520 case overcount at original reporting period.

volume of programs and data sets; and that another Programmer position may become necessary as the requests for new loading and analysis systems increase.

It may become cost-effective to substitute a magnetic data entry system (key-to-tape, key-to-disk) for the production keypunch units. We are currently studying the benefits of such a conversion. The Hetra remote terminal will be purchased outright (private funds), thereby eliminating the monthly rental fee. No other hardware changes are anticipated.

## V. ADMINISTRATION

During this reporting period administrative activity has been concentrated on strengthening the organization of IFRP and on developing operating policies, systems, and procedures to meet the needs anticipated for the next five years.

### Financial Information

The fiscal year for IFRP has been changed to end on September 30. Prior to October 1, 1976, \$12,100,610 had been provided under contract AID/csd-2979. Of this amount, \$9,128,878 had been used for actual expenditures. During this reporting period, \$1,848,346 was used for actual and accrued expenditures, leaving \$1,123,386 available. Financial statements are in Appendix D.

### Personnel

During the reporting period significant progress was made in upgrading the IFRP staff. The full impact of activity will not be realized until some of the key personnel recruited actually join the staff later this year. On March 31, 1977 there were sixty-three (63) budgeted direct cost positions of which five (5) were vacant. The resumes of those persons who joined IFRP during the reporting period are attached.

### Publications

IFRP continued activity to improve the capability to produce scientific publications. Major changes in equipment will be effected in the next six months as a result of investigations conducted during this reporting period. Appendix C is a listing of publications produced during this reporting period.

### Significant Problems

The lack of unrestricted funding continues to be the major problem of IFRP. This deficiency significantly reduces the capability of IFRP to move expeditiously in new directions to meet the changing needs of population/family planning.

A second problem which arose during this reporting period was with physical facilities. Growth has exceeded that planned and the present facilities are inadequate.

### Future Plans

First priority in future planning continues to be given to diversification of funding in order to broaden the capability of IFRP. In addition, the modest beginnings of programs involving developing world governments will be expanded, using the scientific capabilities of IFRP.

Considerable planning has been completed for expansion of the present IFRP facilities. Construction is scheduled to begin in June.

Review and redesign of systems and procedures which are now receiving major attention are scheduled for completion prior to the end of the fiscal year. A proposed realignment of responsibilities to be implemented in the next quarter is shown in the attached organizational chart (see Appendix F).

**A**

**Appendix A**  
**STUDY STATUS LISTS**

INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Malaysia

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
791	Puvan	037	PGF <sub>2α</sub> Supp.	76/167	4-76 11-76	50	300	2000	A								
		305	MR-General (Retro) 21 Days Amenorrhea	74/183	5-75 5-76	500	500	1000	A	300			5-76	288		566	2-77
		604	PIEGO Double Ring Applicator	76/399	9-76 11-76	50	50	150	A								
		623	FS-Tubal Ring Lap (2 punc.) Interval	74/082	1-75 6-76	300	900	3000	A	291	438		3-77	291	273	1700	2-77
		627	Lap (2nd) TR Immed. vs 18-24 hrs. Post-abort.	76/248	7-76 7-78	300	900	3000	A	48			3-77				
		901	Maternity Record 1977	77/169	3-77 4-78	5000	5000	0	A								
792	Loh	501	Photo-reduced Lippes	77/G30	3-77 3-79	250	1275	3800	A								
793	Thambu	604	PIEGO Double Ring Applicator	76/400	9-76 11-76	50	50	150	A								
		614	FS Comp Anesthesia	76/283	7-76 10-77	300	300	900	A								
		621	FS-General	74/080	1-75 6-76	200	600	2000	A	198	148		11-76	198	147	1040	2-77



INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Philippines

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
061	Aifonso	701	Male Sterilization	77/018	1-77 4-78	500	1050	4300	A (PMC)								
600	Apelo	496	LL-D, Burnhill Insertion	76/374	9-76 2-77	100	300	500	A	100			3-77	50			
		498	LL-D with Silastic Fin	76/408	9-76 2-77	100	300	520	A	103	106		3-77	103	105		
		604	PIEGO Double Ring Applicator	76/392	9-76 1-77	100	100	300	A								
		614	FS, Anesthesia Study	76/288	7-76 10-77	300	300	900	A	300			2-77				
		630	Suprapubic Laparotomy	75/320	5-75 5-77	500	1500	5000	A	500	819		9-76	500	808	3755	1-77
		670	Minilap Mod. Pom. vs TR	75/266	5-75 8-77	500	1500	5000	A	499	483		3-77	500	473	1996	1-77
		900	Maternity Record Pretest	76/338	5-76 9-76	300	300	0	A	323			9-76	320			
610	Valenzuela	001	Pregnancy Termination	74/063	10-74 9-75	300	300	600	A	300			12-76	299		598	1-77



INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Indonesia

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
790	Hendrawidjaja	302	MR-General	74/129	11-75 11-76	300	Histo 300 300	1800	A	271			11-76	301		1494	2-77
794	Ariawan	614	FS Anesthesia Study	76/282	7-76 10-77	300	300	900	A								
		621	General pp- ML Mod. Pom.	74/079	11-74 10-76	300	900	1650	A	300	91		12-75	300		717	9-76
		901	Maternity Record 1977	77/173	3-77 3-78	2000	2000	0	A								
796	Iskandar	604	PIEGO Double Ring Applicator	77/086	1-77 4-77	50	50	150	A								
		614	FS Anesthesia Study	76/284	7-76 10-77	300	300	900	A								
		665	Lap. Bipolar Cautery vs Culd. Bipolar	76/176	7-76 7-78	300	900	3000	A								
		901	Cautery Maternity Record 1977	77/171	3-77 3-78	3500	3500	0	A								
		621	General Fimbriae Kramer's	75/339	8-75 8-77	300	900	3000	A	300	546		3-77	300	393	1970	2-77



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INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Bangladesh

Date March 31, 1977

CENTER-STUDY IDENTIFICATION				SERVICE AGREEMENT INFORMATION						FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
704	Syeda Firoza Begum	037	PGF <sub>2</sub> Suppository	76/379	10-76 5-77	30	180	1200	A								
		730	MS-Ligation with without prophylactic antibiotic.	76/278	7-76 12-77	400	400	800	A								
711	Bashed	701	MS	76/420	3-77 12-77	500	500	1000	A (PMC)								
716	Syeda Firoza Begum	707	Ligation Camp. Study 250 cases from each camp.	76/277	7-76 10-77	750	750	1500	A								
718	T.A. Chowdhury	630	Minilap Pom.	76/323	9-76 9-78	300	900	3000	A								
721	Atiqur Rahman Khan	320	Comp. Cannula 4vs6 & 6 wks (400) 6vs8 7-10 wks(400)	76/267	7-76 10-77	800	800	2400	A	254			3-77				

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INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Bangladesh

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
		462	Comp.-CuT 220C vs Lippes D	76/269	7-76 7-78	500	2500	4500	A	21	23		3-77				
		463	Interv.(Multi) Comp. Cu-T 220C vs Lippes D	76/270	7-76 7-78	500	2500	4500	A	41	46		3-77				
		604	PIEGO Double Ring Applicator	76/403	9-76 11-76	50	50	150	A								
		675	Minilap Mod. Pom. vs Culd Mod. Pom	76/268	7-76 7-78	300	900	3000	A	51	21		3-77				
		730	MS-Ligation with & with- out prophylac- tic antibio	76/279	7-76 10-77	400	400	800	A	52			3-77				
	Halida Akhtar	037	PG vag. Supp.	76/381	10-76 5-77	30	30x7	3000	A								
723	Azizur Rahman	631	Minilap TR	76/008	9-75 9-77	300	900	3000	A								
		693	Minilap (Retro)	76/007	8-75- 1-75	1000	1000	1000	A	871			12-76	798		798	9-76
		701	Male Steril (Retro.)	76/390	9-76 12-76	700	700	700	A	399			2-77				





INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Singapore

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
070	Lean	03	Cannula with & without jet	00/238	7-73 12-74	300	300	3900	A	295			11-75	220		3835	2-77
		008	Mid-tri. Prost/IAS/HYO	00/233	6-73 12-74	300	300	4500	A	273			3-77	267		3405	2-77
		151	PT-all method 1973-75 cases	76/016	8-75- 11-77	2000	2000	2000	A								
	Tan	037	PGF <sub>2</sub> vag. supp.	76/130	4-76 11-76	50	50x7	2000	A							380	2-77
	Venga	037	PGF <sub>2</sub> vag. supp.	74/112	4-76 11-76	50	50x7	2000	A	62			1-77	62			
	Lean	037	PGF <sub>2</sub> vag. supp.	76/111	4-76 11-76	50	50x7	2000	A							1500	2-77
		CH1	Longterm sequelae of induced abor. (Admission)	74/228	3-75 8-76	5000 to 6200	5000 revised to 6200	5000 6200	A	5991			12-76			5489	2-77
		CH2	" (Event)	74/227	3-75 8-76	5000 to 18,600	5000 to 18,600	5000 9,300	A	15218			2-77			6437	2-77
		CH3	" (Closure Form)	76/321	7-76 8-76	6200	6200	6200	A	3915			2-77			3552	2-77
		302	MR (General)	75/235	2-76	1000	1000	5500	A	200			11-75	200		1000	2-77
		326	Ring MR-Progesterone	75/356	7-75 10-75	300	300	2250	A	300			8-76	293		1440	2-77
		340	Lau Preg. Test	77/012	12-76 7-77	1000	1000	7000	A	400			3-77	364			













INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Thailand

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
075	Suporn	140	Hosp. Abortion	77/033	3-77 3-78	3000	3000	7500	A (PMC)								
		614	FS Anesthesia Study	76/285	8-76 10-77	300	300	900	A	120			3-77	104			
		652	TR vs. cautery (Lap) Interval	74/086	10-74 9-76	300	900	2700	A	300	340		1-77	300	340	1419	2-77
		676	Culdos. TR vs Pomeroy	77/004	12-76 12-78	300	900	2700	A (PMC)								
		694	FS Surveillance	77/032	1-77 12-77	2000	2000	5000	A								
		551	Postpartum T vs Lippes D	77/106	3-77 3-79	400	1640	3240	A (PMC)								
		813	Comp. OC	76/351	3-77 6-78	600	7200	1000	A								
		901	Maternity Record 1977	77/113	1-77 12-77	2000	2000	0	A (PMC)								
		905	Maternity Record Caesarian Section	77/031	1-77 12-77	2000	2000	0	A (PMC)								
740	Kamheang	604	PIEGO Double Ring Applicator	76/395	9-76 11-76	50	50	150	A (PMC)								
		014	FS Anesthesia Study	76/286	7-76 10-77	300	300	900	A	50			3-77	45			









INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country IRAN

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
031	Raji	017	Comp. in-complete Abort D&C vs DE	74/121	2-75 2-76	420	420	4998	A	417			11-76	415		4652.90	2-77
032	Kashani	657	Comp. caut. vs. TR	75/254	4-75 4-77	300	900	3600	A	104			2-77	92		180	2-77
		401	IUD	00/337	6-73 12-75	250	1250	2500	A	201	441		5-75	201	439	1280	2-77
		623	Straight tubal ring	76/178	4-67 12-77	150	450	-0-	N/A*	7			7-76				
305	Loghmani	318	Comp. MR-Nurse-mid	76/082	4-76 8-77	200	200	2500	A	21			1-77	21			
		451	Soonawala IUD device	76/184	5-76 5-77	250	1250	3250	A								
		503	Comp. Photo reduc.LLD	76/441	12-76 4-79	500	2550	6600	A								
306		318	Comp. MR Nurse-Mid vs. MD	76/087	4-76 8-77	200	200	2500	A	35			1-77	35			
311	Soroudi	305	MR up to 14 wks LMP	75/280	6-75 12-76	1000	1000	4400	A	430			9-76	404		1581.50	2-77

INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Iran

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
321	Ghorbani	305	MR up to 14 wks LMP	76/356	9-76 9-77	300	300	900	A								
		448	Ghorbani device retro	75/295	5-75 8-75	350	700	700	A	302	295		11-76	299	287	586	2-77
		611	Pomeroy and tubal ring- Minilap	76/011	12-75 7-77	200	400	600	A	110			12-76	105		207	8-76
327	Matin	621	Culdoscopy	00/158	6-74 6-76	200	600	2400	A	175	109		11-76	172	114	946	2-77
	Matin- Kutchemeshgi	302	MR up to 14 days delayed menses	74/010	6-74 12-75	300	300	3600	A	312			12-76	290		3276	2-77
328	Mortazavi	305	MR up to 14 wks LMP	74/058	7-74 9-78	2000	2000	10150	A	100			2-77	1003		5088	2-77
335	Shekhol'slam	611	Minilap Mod.Pom.	76/183	5-76 6-77	150	150	-0-	N/A*	80			11-76			-0-	
336	Foroohor	351	MR up to 14 wks LMP	76/258	6-76 7-77	300	300	-0-	A	11			1-77	6		-0-	



INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country USA

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
003	Pion	302	MR (paramed) up to 14	00/424	8-73 7-74	500	500	2500	A	479			6-76	476		1860	4-76
008	Ferguson	808	Norinyl 1+50 and/or ovrals to Brev & or Lo-Ovral	76/392	1-76 6-77	200	600	9600	A	53	41		3-77	38	78	2000	1-76
		810	Norinyl 1+50 to Brevicon or Lo-Ovral	76/136	5-76 7-77	100	300	4800	A	173	215		3-77	148	461	2000	5-76
		811	Ovral to Brevicon or Lo-Ovral	76/137	5-76 7-77	100	300	4800	A	95	127		3-77	91	297	2000	5-76
		899	Nor. 1+50 or Ovral to Brev or Lo-Ovral	76/162	5-76 1-77	100	300	4500	A		259		3-77	89	545	2000	12-76
910	Rhodes	717	Vaseal field testing	76/100	3-76 2-76	200	400	-0-	N/A*	85	122		3-77	82	143		
911	Davis	717	Vaseal field testing	76/147	4-76 10-77	150	300	2250	A								
		720	Vasector field testing	77/140	4-77 8-77	40	90	410	A								
951	Schmidt	717	Vaseal field testing	76/094	1-76 12-76	200	400	-0-	N/A*	149	125		2-77	121	99		
957	Bernstein	717	Vaseal field testing	76/092	1-76 12-76	200	400	-0-	N/A*	64	88		2-77	64	85		

\*Since no d. collection cost was involved for these studies, no request for service agreement approval was submitted during earlier period when studies began. However, service agreement approval was requested for subsequent studies of this nature.







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INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Egypt

Date \_\_\_\_\_

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN				FORMS PROCESSED		PAYMENT	
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
314	Hefnawi	475	U-coil plain vs. progest.	75/342	11-75 11-77	200	1200	3500	A	57	154		3-77	57	148	71	8-76
		481	LLD plain vs. AMCA	76/185	4-76 4-78	160	800 & lab	10000	A	75	103		3-77	75	102	140	1-77
		540	multiload with & without CU	76/442	2-77 3-79	300	1500	0	A								
		621	FS-all technics	00/123	1-75 6-76	200	600	2400	A	157	131		1-77	148	111	835	1-77
		901	Maternity Record	77/131	3-77 3-78	1000	1000	500	A								
315	Hefnawi	901	Maternity Record	77/130	3-77 3-78	5000	5000	2500	A								
340	Etman	445	U-Coil	75/245	2-75 8-77	100	600	1700	A	102	339		3-77	102	320	705	1-77
	Etman	502	Tappered vs. standard LLD	76/436	12-76 12-77	500	2500	5050	A PMC								
341	Badawy	500	IUD-tapered Lippes D	76/409	12-76 2-78	250	1250	2750	A								
		621	FS-all techniques	00/124	11-75 11-77	200	600	2400	A	118			3-77	114		297	1-77















INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Sudan

Date March 31, 1977

CENTER-STUDY IDENTIFICATION					SERVICE AGREEMENT INFORMATION					FORMS IN			FORMS PROCESSED		PAYMENT		
CENTER NUMBER	CONTRIBUTOR	STUDY	STUDY DESCRIPTION	STUDY PROPOSAL NUMBER	TIME SPAN	NO. CASES	NO. FORMS	TOTAL COST	AID STATUS	ADM	FU	OTHER	DATE LAST SHIPMENT	ADM	FU	AMOUNT TO DATE	DATE LAST PAYMENT
046	SFCA Military Hosp	900	Mat Record	75/322	6-76 6-77	2000	2000	2000	A	59			7-75			59	7-76
047	SFCA Ondurman	100	Preg. Term. incomplete	00/159	2-76 8-76	2000	2000	5000	A	1002				999		2491	7-76
		900	Mat. Record	75/323	6-76 6-77	5000	5000	5000	A	7843			12-76	1825		1840	1-77
		411	LLD vs. Cu-7	76/099	2-76 8-78	200	1200	1900	A	48	7		11-76				
048	SFCA Khartoum	100	Preg. Term incomplete	00/160	2-74 8-77	2000	2000	5000	A	1011			6-76	1011		2909	7-76
		817	Min-Ovral vs. Neogyn.	76/186	8-76 8-78	500	2000	4500	A	93	15		2-77				
		900	Mat. Record	75/324	6-76 6-77	4000	4000	4000	A	1489			2-77	1454		366	1-77
049	SFCA Khartoum North	001	Preg. Term incomplete	74/037	2-74 8-77	2000	2000	5000	A	1262			4-76	1253		3263	7-76
		900	Mat Rec.	75/325	6-76 6-77	3000	3000	3000	A	1584			2-77	1470		1470	1-77
		621	Colpotomy Fimb. & Ring	75/243	8-75 8-77	200	600	2000	A	65	12		11-76	64		219	1-77



INTERNATIONAL FERTILITY RESEARCH PROGRAM  
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Country ENGLAND

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011	Sless	060	PGE <sub>2</sub> +Urea+ Oxytocin	76/038	12-75 5-76	300	300	3000	A	37			2-77	36		140	1-77
015	Fairweather	620	Rocket Clip	75/282	10-75 10-76	50	50		A	47	2		11-76	47		387	1-77
		649	Rocket clip vs. tubal ring	76/216	5-76 11-77	200	200 +	5000	A								
		340	MR-Lau Preg. Test	76/365	11-76 11-77	250	400 +		A								
						250	Histo	2500	A	2							
016	Lieberman	620	Rocket clip	75/347 76/218	10-75 5-77	300	900	7500	A	300	300		2-77	300	340	4700	1-77
		649	Rocket clip vs. tubal ring	76/063	4-76 2-78	200	600	5000	A	197	24		3-77				
290	Letchworth	620	Rocket clip	75/349	10-75 10-76	100	300	2500	A	99	159		2-77	93	136	1587	1-77
		636	Compar. Laparost. minilap via Rocket Clip	76/414	4-77 10-79	200	600	5000	A								
291	Niven	620	Rocket clip	76/350	12-75 10-76	50	50 +	1250	A	56	58		2-77	55	54	584	1-77





























INTERNATIONAL FERTILITY RESEARCH PROGRAM  
STUDY STATUS LIST

Country Colombia

Date March 31, 1977

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887	Guajira (1 Hosp.)	901	Mat. Record	77/057	2-77 2-78	200	200	300	A								
888	Choco (1 Hosp.)	901	Mat. Record	77/058	2-77 2-78	500	500	750	A								
894	Bogota (6 Hosp.)	901	Mat. Record	77/063	2-77 2-78	4900	4900	8850	A							2500	1-77
895	Bolivar (3 Hosp.)	901	Mat. Record	77/064	2-77 2-78	700	700	1050	A							1000	1-77
897	Valle (4 Hosp.)	901	Mat. Record	77/065	2-77 2-78	1450	1450	2175	A							1500	1-77
810	Lopez-Escobar	621	Laparoscopy	75/277	5-75 2-76	1200	3600	3000	A	806	283		11-76	795	278	129950	2-77







INTERNATIONAL FERTILITY RESEARCH PROGRAM  
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Country Honduras

Date March 31, 1977

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890	Nunez	140	Hosp. Abortion	77/072	3-77 3-78	1800	1800	5400	A								
		500	Tapered Loop	76/410	3-77 7-78	250	1250	2800	A	11			3-77				
		901	Mat. Record	77/069	3-77 10-77	4000	4000	0	A	273			3-77				
		N/A	FPCR	76/411	10-76 10-77	4000	1000	0	A	809			3-77				
891	Nunez	140	Hosp. Abortion	77/071	3-77 3-78	1400	1400	4200	A								
		901	Mat. Record	77/070	3-77 10-77	3500	3500	0	A	347			3-77	89			

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**B**

**Appendix B**

**RESUMES**

# RESUME

Christine E. Colven  
International Fertility Research Program  
Research Triangle Park, North Carolina 27709

## PERSONAL

Born: February 21, 1942

Residence: 101 Pinegate Circle #12  
Chapel Hill, N. C. 27514

## EDUCATION

1961	Lenguas Vivas Buenos Aires, Argentina	Teaching Certificate (Education)
1975- 1976	Boston College Chestnut Hill, Massachusetts	Course work in Research Methods.

## PROFESSIONAL EXPERIENCE

November 1976- Present	Assistant Area Coordinator for Latin America International Fertility Research Program Research Triangle Park, North Carolina
1969- October 1976	Administrative Assistant for Research The Pathfinder Fund Chestnut Hill, Massachusetts
1964- 1969	Executive Secretary Wyman and Fontaine, Attorneys at Law Boston, Massachusetts
1963- 1964	Secretary Campbell and Hall Boston, Massachusetts

## R E S U M E

Mary B. Derr  
International Fertility Research Program  
Research Triangle Park, North Carolina 27709

### PERSONAL

Born: October 7, 1944  
Married, no children

Residence: 3927 Kelly Drive  
Durham, N. C. 27707

### EDUCATION

1962- 1963	Southern Colorado State College Pueblo, Colorado	Course work in Art Design.
1963- 1968	George Washington University Washington, D. C.	Course work in Art History, Political Science, and Sociology.
1971	University of North Carolina Chapel Hill, North Carolina	BA (Political Science)
1975	Principles of Supervision Course University of North Carolina Chapel Hill, North Carolina	Certificate

### PROFESSIONAL EXPERIENCE

October 1976- Present	Assistant to the Administrator International Fertility Research Program Research Triangle Park, North Carolina
October 1973- April 1976	Personnel Officer Carolina Population Center University of North Carolina Chapel Hill, North Carolina
February 1972- September 1973	Training Officer Academic Programs Office Carolina Population Center University of North Carolina Chapel Hill, North Carolina
June 1971- January 1972	Administrative Secretary to the Director Carolina Population Center University of North Carolina Chapel Hill, North Carolina
July 1968- August 1969	Assistant to Staff Assistant Office of the Director Bureau of the Budget Washington, D. C.

Resume  
Mary B. Derr  
Page Two

1969

Remedial Reading Program Volunteer  
New York Avenue Presbyterian Church  
Washington, D. C.

December 1967-  
June 1968

Secretary-Research Assistant  
Office of Management and Operations  
Bureau of the Budget  
Washington, D. C.

June 1963-  
November 1967

Secretary  
Personnel Office  
Bureau of the Budget  
Washington, D. C.

1965-  
1966

Volunteer  
Community Action Programs  
Washington, D. C.

HONORS

Dean's List, University of North Carolina at Chapel Hill

R E S U M E

Ann V. Garrett  
International Fertility Research Program  
Research Triangle Park, North Carolina 27709

PERSONAL

Born: May 18, 1946  
Married, no children

Residence: 208 West Brook Drive  
Raleigh, N. C. 27609

EDUCATION

1968 University of Connecticut  
Storrs, Connecticut

BA (Education and History)

PROFESSIONAL EXPERIENCE

March 1977-  
Present

Cost Accountant  
International Fertility Research Program  
Research Triangle Park, North Carolina

November 1972-  
December 1976

Division Cost Accountant  
Burlington Industries  
Clarksville, Virginia

TEACHING EXPERIENCE

1968-  
1969

Secondary Education Instructor  
(Social Studies and English)  
Public School System  
Bolton, Connecticut

## R E S U M E

Eleanor H. Jordan  
International Fertility Research Program  
Research Triangle Park, North Carolina 27709

### PERSONAL

Born: June 29, 1952  
Married, no children

Residence: 1004 Brooks Avenue  
Raleigh, N. C. 27607

### EDUCATION

1974	Meredith College Raleigh, North Carolina	BA (English and American Civilization)
1974- 1976	N. C. State University Raleigh, North Carolina	Graduate work in English.

### PROFESSIONAL EXPERIENCE

March 1977- Present	Assistant Editor International Fertility Research Program Research Triangle Park, North Carolina
------------------------	--

August 1975- February 1977	Editorial Assistant N. C. Division of Archives and History Historical Publications Section Colonial Records Branch Raleigh, North Carolina
-------------------------------	--

September 1974- August 1975	Editorial Assistant N. C. Division of Archives and History Historical Publications Section Civil War Roster Branch Raleigh, North Carolina
--------------------------------	--

### HONORS

Dean's List, Meredith College  
Who's Who in American Colleges and Universities, 1973-74  
Member of the Silver Shield (honorary leadership society),  
Meredith College

R E S U M E

Robert Wood McDowell  
International Fertility Research Program  
Research Triangle Park, North Carolina 27709

PERSONAL

Born: July 20, 1948

Residence: 1828 Honeysuckle Lane #13  
Raleigh, N. C. 27609

EDUCATION

1970 East Carolina University  
Greenville, North Carolina

BA (English)

1970-1972 East Carolina University  
Greenville, North Carolina

Graduate course work  
in English completed.

PROFESSIONAL EXPERIENCE

December 1976-  
Present

Assistant Editor  
International Fertility Research Program  
Research Triangle Park, North Carolina

October 1976-  
November 1976

Free-lance writer and reviewer.

July 1976-  
September 1976

Technical Editor  
Office of Marine Affairs  
N. C. Department of Administration  
Raleigh, North Carolina

December 1975-  
June 1976

Supervisor of the Graphic Aids Division  
Instructional Support Division  
Wake Technical Institute  
Raleigh, North Carolina

April 1975-  
November 1975

Free-lance writer and reviewer.

April 1974-  
March 1975

Information and Communication Specialist I  
Public Information Office  
N. C. Department of Correction  
Raleigh, North Carolina

April 1973-  
March 1974

Disability Determination Specialist  
Disability Determination Section  
Division of Social Services  
N. C. Department of Human Resources  
Raleigh, North Carolina

Resume  
Robert Wood McDowell  
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June 1972-  
September 1972

Advertising Salesman  
The Advocate  
Greenville, North Carolina

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Alpha Phi Gamma (national honorary journalism fraternity),  
Charter Member, Delta Nu Chapter, East Carolina University

HONORS

All A's List, Dean's List, East Carolina University  
Teaching Fellow (Junior Instructor), Department of English,  
East Carolina University, 1970-1972

PUBLICATIONS AND PRESENTATIONS

Tar River Poets, East Carolina Poetry Forum Series No. 7 (section of poetry)  
Raleigh News and Observer (articles and reviews)  
The Raleigh Times (articles and reviews)  
Four Seasons (reviews)  
Department of Correction (informational booklets and news releases)  
Office of Marine Affairs (news releases and editing of Deepwater Terminal Study)

R E S U M E

Irene K. Rosenfeld  
International Fertility Research Program  
Research Triangle Park, North Carolina 27709

PERSONAL

Born: August 8, 1919  
Married, one daughter

Residence: 1209 Arboretum Drive  
Chapel Hill, N. C. 27514

EDUCATION

1940	New York University New York, New York	BA (English and Music)
1940- 1942	New York University New York, New York	Graduate course work in Musicology completed.
1956	Harvard University Cambridge, Massachusetts	MEd (Education)

CERTIFICATION

1956	Teaching License Massachusetts
1957	Teaching License Michigan
1965	Teaching License New York City

PROFESSIONAL EXPERIENCE

December 1976- Present	Assistant Editor International Fertility Research Program Research Triangle Park, North Carolina
1973- 1976	Research and writing in the field of health services.
1973	Assistant to the General Director North Carolina Memorial Hospital Chapel Hill, North Carolina
1971- 1973	Assistant Director of the Department of Community Medicine and Patient Services Coordinator Hospital for Joint Diseases and Medical Center New York, New York

- 1970-  
1971      Editor and Research Assistant  
          for a monograph entitled  
          Ambulatory Medical Care  
          New York, New York
- 1966-  
1970      Registrar, Director of Admissions,  
          Chairman of the Committee on  
          Student Finances, and Teacher of  
          Remedial Mathematics and English.  
          Beth Israel Medical Center  
          School of Nursing  
          New York, New York
- 1966      Research Associate  
          Department of Educational Psychology  
          Graduate School of Education  
          Yeshiva University  
          New York, New York
- 1940-  
1956      Professional Musician and Musicologist
- 1951-  
1953      Volunteer Music Therapist for Disturbed Patients  
          Walter Reed Hospital, Washington, D.C.  
          and Naval Hospital, Bethesda, Maryland
- 1943-  
1944      Bilingual Assistant (Spanish)  
          Rubber Development Corporation of the  
          United States Reconstruction Finance Corporation  
          Managua, Nicaragua

TEACHING EXPERIENCE

- 1958-  
1965      Teacher  
          Grosse Pointe University School  
          Grosse Pointe, Michigan
- 1957-  
1958      Teacher  
          Public School System  
          Grosse Pointe, Michigan
- 1956-  
1957      Teacher  
          Oak Hill School  
          Newton Centre, Massachusetts
- 1956      Instructor  
          Graduate School of Education  
          Harvard University  
          Cambridge, Massachusetts

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Irene K. Rosenfeld  
Page Three

CONSULTING ACTIVITIES

1976 Project Coordinator, Grant for Planning Improvement and  
Maintenance of Emergency Medical Services  
Health Planning Council of Central North Carolina  
Durham, North Carolina

HONORS

Dean's Assistant, New York University, 1937-1940  
Fellow at the Graduate School of Musicology, New York University, 1940-1942  
Eclectic, University Women, and Mu Sigma (music), New York University  
Pi Lambda Theta, Harvard University

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Society of Patient Representatives (American Hospital Association Affiliate),  
1971-1973  
Founder  
Member of Board of Directors  
Chairman of Conference and Education Committee (1971-1973)

PUBLICATIONS AND PRESENTATIONS

Rosenfeld, I. Learning How to Learn: Individualization of Instruction  
in the Elementary School. Paper presented at the annual meeting of the  
Independent Schools Association, Milwaukee, Wisconsin, May 1961.

Rosenfeld, L. S. and Rosenfeld, I. National Health Planning in the  
United States: Prospects and Portents. Int. J. Health Serv., 5(3):  
441-453, November 1975.

## RESUME

Marcia Ann Rhea Tolbert  
International Fertility Research Program  
Research Triangle Park, North Carolina 27709

### PERSONAL

Born: July 23, 1949  
Married, no children

Residence: 1194 Appleblossom Court  
Raleigh, N. C. 27606

### EDUCATION

1967- 1969	California State University San Diego, California	Course work in General Subjects and Psychology.
1972	University of California Riverside, California	BA (Psychology)

### PROFESSIONAL EXPERIENCE

December 1976- Present	Programmer II International Fertility Research Program Research Triangle Park, North Carolina
July 1975- June 1976	Assistant Programmer Social Science Data Service University of California Davis, California
July 1975- June 1976	Assistant Programmer Life Stress Research Project Department of Psychiatry School of Medicine University of California Davis, California
January 1975- June 1975	Senior Coder Social Science Data Service University of California Davis, California
August 1973- July 1975	Senior Coder Life Stress Research Project Department of Psychiatry School of Medicine University of California Davis, California

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Marcia Ann Rhea Tolbert  
Page Two

May 1974-  
January 1975

Senior Coder  
Student Accessible Data Sets Project  
Social Science Data Service  
University of California  
Davis, California

October 1972-  
October 1974

Senior Coder  
Lake Tahoe Research Project  
Institute of Governmental Affairs  
University of California  
Davis, California

March 1972-  
July 1972

Laboratory Helper  
Maloney Canyon Greenbelt Irrigation Project  
Department of Plant Sciences  
University of California  
Riverside, California

July 1969-  
September 1970

Medical Secretary  
Dr. Mark R. Rhea  
Idyllwild, California

# RESUME

Gaines B. Turner  
International Fertility Research Program  
Research Triangle Park, North Carolina

## PERSONAL

Born: July 19, 1919  
Married, one son

Residence: 1140 Sturdivant Drive  
Cary, N. C. 27511

## EDUCATION

1939	Texas A & M University College Station, Texas	BA (Chemistry)
1949- 1951	U.S. Naval War College Newport, Rhode Island	Course work in Organization and Management.
1959- 1960	Rhode Island College of Education Providence, Rhode Island	Course work in Educational Administration

## PROFESSIONAL EXPERIENCE

January 1977- Present	Associate Director for Administration International Fertility Research Program Research Triangle Park, North Carolina
1969- 1976	Director of Operations and Administration The Pathfinder Fund Chestnut Hill, Massachusetts
1966- 1968	Vice President for Operations Telecontrol Corporation Greenwich, Connecticut
1962- 1965	Senior Associate Cresap, McCormick and Paget New York, New York
1941- 1961	Various Positions U.S. Navy

## MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Management Association  
American Society of Association Executives

**C**

**Appendix C**

**PUBLICATIONS LIST AND SPECIAL PROJECTS**

#### . PREGNANCY TERMINATION

1. E R Miller, J L Wood, L Andolsek and M Ogrinc-Oven. First Trimester Abortion by Vacuum Aspiration: Interphysician Variability. 104th Annual Meeting of the American Public Health Association, Miami Beach, Florida, October 17-23, 1976. PT-97
2. H Rushwan, J G Ferguson, Jr and R P Bernard. Hospital Counseling in Khartoum: A Study of Factors Affecting Contraceptive Acceptance After Abortion. VIII World Congress of Gynecology and Obstetrics, Mexico City, Mexico, October 17-23, 1976. PT-98
3. L Keith, D A Edelman and G S Berger. Assuring Quality Care in Abortion Clinics. Presented: Meeting of the National Association of Abortion Facilities, Chicago, Illinois, November 15, 1976. PT-99
4. M M Barr. Midtrimester Abortion by a Vaginal Approach. Pan American Medical Society Meeting, 50 Anniversary Congress, Hollywood, Florida, October 24-29, 1976. PT-101.
5. M S Burnhill, J W Armstead, E Kessel and E R Miller. Computer Assisted Evaluation of Demographic Trends and Morbidity Data in First Trimester Vacuum Aspiration. Presented: 14th Annual Scientific Meeting of the Association of Planned Parenthood Physicians, Miami Beach, November 10-12, 1976. Published: Adv Plann Parent (in press). PT-102
6. M I Ragab, D A Edelman and L Laufe. The Effects of Paracervical Block Anesthesia on the Abortifacient Efficacy of  $\text{PGF}_{2\alpha}$  and Hypertonic Saline. Int J Gynaecol Obstet (in press). PT-103

#### MENSTRUAL REGULATION SERIES

7. D A Edelman and G S Berger. Menstrual Regulation. Published: Techniques of Abortion and Sterilization, Academic Press Inc. Ltd., London, England (in press). MR-27

- J Fortney, E R Miller and E Kessel. Competing Risks of Unnecessary Procedures and Complications in Menstrual Regulation. Stud Fam Plann (in press). MR-34
- L E Laufe. Menstrual Regulation--The Procedure. Stud Fam Plann (in press) MR-35 (Not Available)
9. M Loghmani, A Kay and M Mohyi. Menstrual Regulation Performed by Nurse-Midwives. Stud Fam Plann (in press). MR-36
10. J Fortney and L Laufe. Menstrual Regulation - Risks and Benefits. Presented: PARFR Workshop on Risks, Benefits, and Controversies in Fertility Control, Arlington, Virginia, March 13-16, 1977. Published: Risks, Benefits and Controversies in Fertility Control. J J Sciarra, G I Zatuchni and J J Speidel (eds.); Hagerstown, Maryland; Harper and Row (in press). MR-37
11. E Kessel. Menstrual Regulation as a Method of Fertility Control. Stud Fam Plann (in press). MR-38
12. K Omran. Menstrual Regulation: Update on Equipment, Technology, and Therapeutic Uses. Presented: Vth Sudanese Congress of Obstetrics and Gynecology, Khartoum, Sudan, February 14-18, 1977.

#### FEMALE STERILIZATION SERIES

13. R Quiñones, D A Edelman, A Alvarado, E Ley and A Goldsmith. Female Sterilization Using the Tubal Ring. Presented: VIII World Congress of Gynecology and Obstetrics, Mexico City, Mexico, October 17-23, 1976. Published: Int J Gynaecol Obstet (in press). FS-55
14. R V Bhatt, N D Pathak, L Chauban and S Pachauri. Our Experience with 2009 Cases of Camp Sterilization. VIII World Congress of Gynecology and Obstetrics, Mexico City, Mexico, October 17-23, 1976. FS-57

15. V R Oblepías and S Pachauri. A Comparison of Electrocoagulation and Tubal Ring Techniques of Laparoscopic Sterilization. Int J Gynaecol Obstet (in press). FS-59
16. C Schramm, R S Guzman, C Martínez and M F McCann. Sterilization by Laparoscopic Electrocoagulation: A Report from Valdivia, Chile. Annual Meeting of the International Family Planning Research Association, Beverly Hills, California, September 29-October 2, 1976. FS-60
17. S Pachauri. Socio-demographic and Fertility Characteristics of Women Sterilized in Hospitals and Camps. Published: Proceedings of the International Seminar on Problems of Fertility Control in India (in press). FS-61
18. S Koetsawang and S Pachauri. Female Sterilization by Laparoscopy--A Comparative Study of Tubal Occlusion with Electrocoagulation and Spring-Loaded Clip with One-Year Follow-Up. 1976 Clinical Symposium on Gynecologic Endoscopy, American Association of Gynecologic Laparoscopists, Atlanta, Georgia, November 17-21, 1976. FS-62
19. J Zipper, M Medel, A Goldsmith, D A Edelman, L Pastene and M Rivera. The Clinical Efficacy of Repeated Transcervical Instillation of Quinacrine for Female Sterilization. Presented: VIII World Congress of Gynecology and Obstetrics, Mexico City, Mexico, October 17-23, 1976. Published: Int J Gynaecol Obstet (in press). FS-64
20. C Aranda, A Broutin, D A Edelman, A Goldsmith, T Mangel, C Prada and A Solonao. A Comparative Study of Electrocoagulation and Tubal Rings for Tubal Occlusion at Laparoscopy. Presented: VIII World Congress of Gynecology and Obstetrics, Mexico City, Mexico, October 17-23, 1976. Published: Int J Gynaecol Obstet (in press). FS-65
21. V Madrugal, D A Edelman and A Goldsmith. Laparoscopic Sterilization as an Outpatient Procedure. Presented: 1976 Clinical Symposium of Gynecologic Endoscopy, American Association of Gynecologic Laparoscopists, Atlanta, Georgia, November 17-19, 1976. Published: J Reprod Med (in press). FS-68

22. J J Speidel and M F McCann. Minilaparotomy: A Fertility Control Technique of Increasing Importance. Adv Plann Parent (in press). FS-70
23. A Quan, D de Badia, D A Edelman and A Goldsmith. Laparoscopic Sterilization After "Spontaneous" Abortion. Presented: VIII World Congress of Gynecology and Obstetrics, Mexico City, Mexico, October 17-23, 1976 and 1976 Clinical Symposium of Gynecologic Endoscopy, American Association of Gynecologic Laparoscopists, Atlanta, Georgia, November 17-21, 1976. Published: Int J Gynaecol Obstet (in press). FS-71
24. R K Pachauri, E Kessel and S Pachauri. Economic Aspects of Choosing Female Sterilization Procedure. 1976 Clinical Symposium of Gynecologic Endoscopy, American Association of Gynecologic Laparoscopists, Atlanta, Georgia, November 17-21, 1976. FS-73
25. M F McCann, M M Morrow and A Goldsmith. Advances in Sterilization Equipment. Conference on Extension de Medios Anticonceptivos Quirurgicos Inter-American Dialogue Center, Airlie Foundation, Airlie, Virginia, February 14-18, 1977. FS-74
26. M F McCann and E Kessel. International Experience with Laparoscopic Sterilization: Follow-Up of 8500 Women. 14th Annual Scientific Meeting of the Association of Planned Parenthood Physicians, Miami Beach, Florida, November 10-12, 1976. Published: Adv Plann Parent (in press). FS-75
27. M F McCann. Laparoscopy vs Minilaparotomy. Presented: PARFR Workshop on Risks, Benefits, and Controversies in Fertility Control, Arlington, Virginia, March 13-16, 1977. Published: Risks, Benefits and Controversies in Fertility Control. J J Sciarra, G I Zatuchni and J J Speidel (eds.), Hagerstown, Maryland, Harper and Row (in press). FS-76
28. K Omran. International Experience with Tubal Sterilization by Minilaparotomy. Presented: Vth Sudanese Congress of Obstetrics and Gynecology, Khartoum, Sudan, February 14-18, 1977. FS-78

## INTRAUTERINE DEVICE SERIES

29. S Koetsawang, S Srisupandit, S Srivannaboon and M Mitra. Experience with the Copper-7 and Copper-T Intrauterine Devices at Siraraj Hospital in Bangkok, Thailand. J Asian Fed Obst Gynaecol (in press). IUD-30
30. H M Hasson, G S Berger and D A Edelman. Factors Affecting Intrauterine Contraceptive Device Performance in Endometrial Cavity Length. Am J Obstet Gynecol 126:973-981, 1976. IUD-33
31. I Batar, M N Thomas, L Lampe and E Kessel. Two Modifications of the Intrauterine Membrane Contraceptive Device. VIII World Congress of Gynecology and Obstetrics, Mexico City, Mexico, October 17-23, 1976. IUD-36
- A. M Medel, J Zipper, A Dabancens, M N Thomas and A Goldsmith. Contraceptive Efficacy of Two Different Metals Using a Modified Seven Vector. Presented: VIII World Congress of Gynecology and Obstetrics, Mexico City, Mexico, October 17-23, 1976. Published: Int J Gynaecol Obstet (in press). IUD-37
- B. J Zipper, M Medel, A Goldsmith and D A Edelman. Six-Year Continuation Rates of T-Cu-200 Users. Published: J Reprod Med 18:95-97, 1977. IUD-38
- C. I-cheng Chi, E Kessel and M Mitra. An Epidemiological Study of Intrauterine Contraceptive Devices--A Preliminary Report. Presented: PARFR Workshop on Risks, Benefits and Controversies in Fertility Control, Arlington, Virginia, March 13-16, 1977. Published: Risks, Benefits and Controversies in Fertility Control. J J Sciarra, G I Zatuchni and J J Speidel (eds.), Hagerstown, Maryland, Harper and Row (in press). IUD-44

## SYSTEMIC CONTRACEPTIVE SERIES

- D. R T Ravenholt, E Kessel, J J Speidel, P P Talwar and M J Levinski. A Comparison of the Symptoms Associated with the Use of Three Oral Contraceptives: A Double Blind Crossover Study of Ovral, Norinyl and Norlestrin. Presented: 14th Annual Scientific Meeting of the Association of Planned Parenthood Physicians, Miami Beach, Florida, November 10-12, 1976. Published: Adv Plann Parent (in press). SYS-3

- E. P P Talwar, J R Dingfelder and R T Ravenholt. Endometrial Control--A Comparative Study of Three Oral Contraceptives. Int J Gynaecol Obstet 14:385, 1976. SYS-5
- F. G S Berger. Oral Contraceptives and Myocardial Infarction: A Reassessment. NC Med J (in press). SYS-6
- G. G S Berger and R N Taylor. Incidence and Risk of Post-Pill Amenorrhea. First National Medical Conference on the Safety of Fertility Control, Chicago, Illinois, March 6-9, 1977. SYS-9
- H. P P Talwar and G S Berger. The Relationship of Body Weight to Side Effects Associated with Oral Contraceptives. Br Med J (in press). SYS-10

#### PROGRAM EVALUATION SERIES

- I. R K Anderson. India's Family Planning Program, Past and Future Progress. First Asian Congress of Fertility and Sterility, Bombay, India, February 12-23, 1977. EVAL-15
- J. E Kessel. Toward Stationary Populations and Beyond. First Asian Congress of Fertility and Sterility, Bombay, India, February 19-23, 1977. EVAL-16
- K. E Kessel. Fertility and Development: The Role of the Medical Profession. Vth Sudanese Congress of Obstetrics and Gynecology, Khartoum, Sudan, February 14-18, 1977. EVAL-17

#### METHODOLOGY SERIES

- L. Laufe and M McCann. Training: An Integral Adjunct to the Introduction of Newer Methods of Fertility Regulation. First Asian Congress of Fertility and Sterility, Bombay, India, February 19-23, 1977. Meth-21 (Not Available).
- L. J J Speidel, E Kessel, G S Berger and M Labbock. Recent Developments in Technology for the Control of Female Sterilization. Published: Obstetrics and Gynecology Annual. R M Wynn (ed.), Appleton-Century-Crofts, New York (in press). METH-24

M. R P Bernard. Epidemiology of the Need for Family Planning as Derived from Maternity Care Monitoring. Second Regional Conference on Village and Household Distribution of Contraceptives, Tunis, Tunisia, March 27-30, 1977. METH-25

# TAKING FAMILY PLANNING TO THE WORLD'S POOR

*By*

Malcolm Potts, MB, B Chir, PhD  
Elton Kessel, MD, MPH  
Pouru P. Bhiwandiwal, MD, FCPS, DGO, DFP

International Fertility Research Program  
Research Triangle Park, North Carolina 27709 USA

---

*Family Planning is a problem of global numbers  
on a scale which is sometimes difficult to appreciate.*

---

The world appears to be past its maximum rate of population growth.

1970 : 1.90%

1975 : 1.64%

But the population growth has outstripped grain production, and there are rising death rates related to malnutrition. The world will experience an enormous absolute increase in the numbers of its poor, and this will constitute the primary constraint on all future development plans.

Dr. Elton Kessel, Director  
International Fertility Research Program

---

*It is also a problem of intense individual importance.*

---

A woman in Juarez, Mexico was pregnant for the ninth time. Her husband was an illegal immigrant to the USA. By the sixth month of pregnancy he had stopped sending money to her, and the family was destitute. One evening, driven beyond the limits of human endurance by the pleadings of her children for food, she took a knife from the bare table and slashed at her belly in an attempt at suicide. She killed the fetus inside her, but after two months of intensive treatment in the hospital was sufficiently recovered to stand trial on a charge of illegal abortion. For this "crime" she was given a long prison sentence. Through the efforts of Mrs. Guadalupe de la Vega, a participant at this meeting, the sentence was reduced.

## LIST OF PARTICIPANTS

### Chairman

Dr. Malcolm Potts, Member, Board of Directors,  
International Fertility Research Program, England

### Convenor

Dr. Elton Kessel, Director, International Fertility Research Program, USA

### Organizing Secretary

Dr. Poursu P. Bhiwandiwalla, Staff Gynecologist,  
International Fertility Research Program, USA

### Participants

Dr. Richmond K. Anderson, Senior  
Consultant, International Fertility  
Research Program, USA

Dr. I.B. Astawa, Executive Chairman,  
National Family Planning Coordi-  
nator Board, Bali, Indonesia

Dr. Siva Chinnatamby, Honorary Medi-  
cal Director, Family Planning As-  
sociation, Sri Lanka

Dr. Carolina Gabriel, Obstetrician and  
Gynecologist, Ronn-Carmel Hospi-  
tal, Manila, Philippines

Dr. Melanio Gabriel, Director, Gabriel  
Medical Assistance Project,  
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Lt. Col. Dennis Hapugalle, Director,  
Community-Based Distribution  
Program, Sri Lanka

Dr. Leonard E. Laufe, Director of Re-  
search and Training, International  
Fertility Research Program, USA

Mr. Terry Louis, Country Representa-  
tive, Population Services Interna-  
tional, Sri Lanka

Prof. O.A. Ojo, Prof. of Gynecology  
and Obstetrics, University College  
Hospital, Ibadan, Nigeria

Dr. D.N. Pai, Director, Health Promo-  
tion Society, Bombay, India



Left to right: Dr. Richmond K. Anderson, Dr. Poursu Bhiwandiwalla,  
Dr. Leonard E. Laufe, and Dr. Elton Kessel.



Left to right: Lt. Col. Dennis Hapugalle, Dr. Malcolm Potts,  
and Mr. Mechai Viravaidya

Dr. Ramdas Pai, Dean, The Academy of  
General Education, Manipal, India

Dr. D.J. Reddy, Director, Sree  
Mullapudi Venkata Ramanamma,  
Andhra Pradesh, India

Mrs. Guadalupe de la Vega, Organizer,  
Planificacion Familiar A.C.,  
Juarez, Mexico

Mr. Mechai Viravaidya, Director, Com-  
munity-Based Family Planning  
Services, Bangkok, Thailand

## TAKING FAMILY PLANNING TO THE WORLD'S POOR

### PREFACE

The International Fertility Research Program (IFRP) was requested by the Draper World Population Fund and the Japan Science Society to convene a workshop on *Taking Family Planning to the World's Poor* with the intent of presenting the findings of this workshop to the Tokyo International Symposium. Accordingly, family planning workers who had run successful programs and had considerable expertise in this area were invited from all over the world to participate in the workshop which was held in Colombo on February 17-18, 1977. This report attempts to document the observations, recommendations and conclusions of the participants. In order to transmit some of the life, sincerity, and humor of the meeting, the report has been prepared in a narrative style, and the actual quotations of the participants are interspersed throughout the text. An appendix containing summaries of the innovative and adventurous programs conducted by the participants has been included with a view toward illustrating the factors responsible for a successful project. The authors would like to express their sincere appreciation to all the participants not only for sharing their experiences, but also for their significant, sometimes fiery, but always practical contributions which led to the success of this meeting. The opinions expressed herein are intended to record what transpired at the workshop. They are not necessarily those of the authors and do not necessarily reflect IFRP policies or goals.

Malcolm Potts  
Elton Kessel  
Pouri Bhiwandiwala

*Prepared and distributed by the  
International Fertility Research Program  
Research Triangle Park, North Carolina 27709 USA  
March 1977*

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United States Agency for International Development (AID/csd 2979)*

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## INTRODUCTION

The usual evolution of family planning services has been from those serving the urban middle class through private physicians and family planning associations to national family planning programs. It used to be erroneously assumed that government health infrastructures would carry services to the poor. But recently, imaginative approaches of a different sort, such as *household distribution*, *community-based distribution*, and *social marketing* of contraceptives, have reached the hinterlands of large, poor countries. It is not accidental that these initiatives originated in the private and nongovernmental sector where there is the flexibility to try new delivery systems.

Two additions to our knowledge in this decade punctuate the importance of the subject matter of this Workshop. First, it is now realized that the classical demographic transition theory need not be accepted fatalistically. There have been examples of low fertility existing with high mortality and low socioeconomic development, and of high fertility being maintained in spite of rapidly declining mortality and improved economic development. It appears that a most critical determinant of fertility is the availability of appropriate means of fertility control. Second, it has now become clear that the most important demographic change taking place over this and the next one or two generations will be a remarkable increase in the proportion and absolute numbers of the world's poor. The economically advanced countries are rapidly reaching stationary populations, while the poor countries continue to grow rapidly.

*Support must be given to research and pilot projects  
aimed at finding solutions to the life-threatening problems  
of the world's poorest billion.*

In February, 1977, the International Fertility Research Program brought together a dozen managers of successful family planning programs and asked them to compare their experiences and discuss the major problems they have faced and will continue to face. The Workshop planned to provide a synopsis of the problems, opportunities, and needs of those who are working closest to the problem of extending family planning services to the world's poor by the people most directly involved in the work. The findings of the Workshop are to be presented to the meeting *Action Now Towards More Responsible Parenthood Worldwide* cosponsored by the Japan Science Society and Draper World Population Fund. Perhaps surprisingly, even for those professionally engaged in the problem of family planning, the major issue did not revolve around the problems of motivating or supplying family planning services to couples in villages or urban slums. Obviously, there are serious problems to be faced in this area, but they can be largely overcome. The findings of a variety of countries, differing greatly in religion, politics, and culture, showed a considerable uniformity in the structure of successful programs and their costs, and in the receptivity of poor people to meaningful family planning services.

*All cultural barriers disappear  
as the mist before the sun.*

The major issue was not how to provide services, but how to achieve the political and

managerial freedom necessary to execute them and how to secure the financial and technical resources necessary to support programs. The participants spoke from the strong position of those who are conducting successful and energetic field programs. A discussion of the role of national and international bodies dedicated to family planning and designed to support such programs with money and professional skills revealed the vital role of nongovernmental agencies, as well as government organizations, in achieving successful programs.

It was apparent that family planning has come of age. The generation which brought (not always totally appropriate) western technologies, management, and evaluation systems to the developing world from rich countries is past. Their work did succeed in arousing, supporting, and assisting the nationals of the countries concerned in launching family planning. The success which is now coming to programs, even those working to reach the poor in the most difficult of areas, is the reward which was always sought and is profoundly welcome. However, success is also demanding adjustments and maturity among donors and international technical assistance agencies.

Truly successful family planning programs are rare. Nevertheless, such programs do exist in a variety of different countries, and there is no disputing their accomplishments just as there can be no doubt about the need for programs of this type. One of the most straightforward ways of viewing the family planning effort which has been directed towards helping the world's poor is as a series of experiments, only some of which have worked. A less academic and more forceful way is to regard programs as steps in an evolutionary process. Almost invariably family planning begins as a controversial issue in any specific country, and commonly, the first programs and methods to be offered are those which are politically least challenging.

*Family planning always starts with the least relevant programs and devices and then gradually develops.*

In practical terms, this means that family planning projects usually begin with those methods and programs which are least effective and are most far removed from the genuine needs of people attempting to control their fertility. For example, many family planning programs have begun with a small number of clinic-based methods of limited outreach and linked with close physician supervision — often for political as much as for clinical reasons. The end-point of many family planning programs is evidence that the program is cost-effective, demographically significant, and greatly desired by the world's poor. Yet, surgical services tend to be the last, rather than the first things, which are made available.

The pioneer family planning effort in a country begins as the work of a few individuals fired with a concern for the suffering associated with excess fertility. Such individuals band together in voluntary groups well before most governments wish to, or are able to extend help directly. IPPF member associations around the world have not only antedated governmental activity in nearly all member countries, but they have often been responsible for stimulating governmental interest that has eventually arisen. This aspect of nongovernmental work is well understood and appreciated.

The step-wise progress of family planning from a limited availability of the reversible methods of contraception towards an elective use of surgical as well as reversible methods, is not always understood. The participants at the meeting represented the full range of possible steps of evolution — from India (with the longest history of family planning effort of

any developing country) where surgical procedures are the most important parts of the family planning effort to Mexico where family planning is a recent innovation, sterilization is controversial, and abortion is illegal.

There are many examples of the role which nongovernmental organizations can and must play at each step in the evolution of family planning. The role of voluntary effort is not over simply because the concept of family planning becomes acceptable in a country or because a national family planning policy is adopted. The work of the nongovernmental organizations and of the inter-governmental organizations, which support their efforts to devise and set up new types of family planning services as they become politically acceptable, often continues to be essential.

Workshop participants reported that millions of the world's poor want to control their fertility and that current technology, although not as good as could be hoped for, is sufficient to meet the people's needs at a cost that can be met from the combined effort of rich and poor countries. The participants at the meeting accepted the general consensus of experts that sudden, unexpected improvements in contraceptive and sterilization technology are unlikely and that the immediate need is to use the available methods as effectively as possible. Obviously, if there were to be sudden improvements, such as the development of a contraceptive vaccine might bring, then those working with elective programs would be eager to adopt such an advance as a means of easing some of their problems.

## EXTENDING FAMILY PLANNING TO THE POOR

### Methods

It was agreed that successful programs have always promoted family planning as a part of everyday life, and not just family planning techniques. No method of family planning is totally satisfactory for everyone, and every method has some followers no matter how unattractive it may appear to others. What is true of methods is also probably true of programs and methods of distributing family planning services. Every time a new program or method is added, more people are recruited to family planning without seriously displacing existing programs or methods. None of the participants at this workshop wished to limit themselves to a single method, but many found that some options were arbitrarily excluded by accidents of history, by national laws, or by donor agencies.

*We offer people not what they want, but what  
we are able to give them politically.*

For example, in the Indian government program, oral contraceptives have not been promoted, but abortion has been legal since 1972; while in Thailand, Indonesia, the Philippines and Mexico, pills have played a major role in family planning programs, but abortion is illegal. Arbitrarily limiting a program to a small number of methods may lead to an over-emphasis on these methods. Every participant expressed a desire to be able to add additional fertility regulation options to their programs in a systematic way. Even though they wish to have additional options, those who run successful programs make the most of the limited methods allowed them.

*We are going down the road with a  
bottle of milk instead of a truckload.*

While appreciating the opportunity of offering a wide-range of options, participants did not necessarily recommend that all methods go through the same programmatic channel. A broad distinction was made between the distribution of the reversible methods of contraception and the provision of surgical sterilization services. It is possible, and necessary, to deliver pills, condoms and spermicides to the doorsteps of potential consumers through a network of personnel with minimal training, a simple system of supervision, and no physical equipment or facilities beyond a bag and a notebook.

The Workshop participants shared a wide variety of experiences with community-based distribution of pills; no problems were reported with this delivery system. Everyone agreed to the utilization of paramedical workers to distribute pills and provide follow-up for pill acceptors, and many had had satisfactory experiences with such programs. The maximum use of auxiliaries was also seen to be essential in other aspects of family planning, and it was suggested that paramedical workers could be responsibly taught menstrual regulation.

On the other hand, inserting an IUD and, especially, providing follow-up for IUD acceptors, requires more care, adequate supervision, and some equipment. The very successful use of IUDs in Bali suggests that women will travel 3 to 5 kms to a simple clinic to obtain this service, but in more remote areas a mobile service should be provided.

The surgical methods of family planning demand a higher level of skill, more equipment,

and at least a temporary physical base. Abortion services should be made available on a continuous basis, but in many cases, women will travel some distance if they know their problem is likely to be solved. Mobile teams are able to carry sterilization services out into rural areas on a continuous basis. Camps in India and mobile teams in the Philippines meet this need to deploy surgical expertise on a temporary basis to rural areas where it is not normally available.

Even though services may reach the community along different channels, from the consumer's point of view, it is helpful to assist ready transfer from one method to another. For example, a pill distributor should know where to refer a user for sterilization. The availability of early abortion adds credibility and security to the use of all the reversible methods of contraception.

An important factor determining which options are included in a program is the legal limitation on the type of personnel who may undertake various family planning options. A major effort is required by national and international agencies, government and private, to secure appropriate legal, administrative, and professional support for paramedical and auxiliary workers delegated tasks in family planning.

It was felt that legal and logistic restraints are more important in determining the profile of methods used than possible cultural or religious differences between acceptors.

*The availability and the type of delivery system ultimately determine what is used in the community.*

It was the experience of most people that strong leadership and enthusiasm could sway the people to adopt whatever methods are desirable.

Participants noted the importance of, but did not discuss, the traditional methods of contraception, including the role of breast-feeding in pregnancy spacing and as the optimum source of nutrition for the baby.

### **Promotion**

Participants unanimously agreed that the availability of a method is the key to its use. All recognized the importance of communicating and promoting family planning and gave examples of some ingenious and colorful informational and educational efforts, but they still made availability the foundation of their projects. It was agreed that the prime need is to promote family planning rather than particular methods, although clear instructions and honest information about methods is essential.

When the experience of successful programs from a wide range of countries was assembled, the assumed problem of major cultural differences between communities largely dissolved, but the common problems which face the poor in coping with a difficult and uncertain world surfaced as a uniting theme.

Participants felt that most technical assistance should come from within the country concerned. When the country itself cannot provide the necessary technical resources, these could more appropriately be drawn from regional rather than global sources. Using the communications budget as an example, participants guessed that about two-thirds should be spent within the country; another 20 percent, for assistance from regional sources, with only a small amount channeled through a central reservoir of technical skills available through an international agency. However, the central contribution was felt to be valuable,

and in particular, participants felt a need for some communication items in massive numbers. As an example, information and education campaigns generally need a film reviewing family planning techniques, and one or two standard films supplied cheaply and in large volume would be welcome.

*All the film projectors are lying idle.*

Participants emphasized the variety of promotional techniques it is possible to use. In fact, it is almost impossible to find an everyday thing which could not be used in one form or another to assist the cause of family planning. For example, packaging for soaps, sanitary napkins, infant feeding formula, and T-shirts could all carry information slogans or coupons promoting or simplifying access to family planning. Children's games (similar to Snakes and Ladders) could be modified so that the winner is the one gaining most points for taking the steps which lead to the best control of human reproduction. Sometimes, it is possible to piggy-back messages at no cost. In Thailand, everyone who is vasectomized is given a free lottery ticket and has a chance to win a motorcycle.

The experienced program administrators all take care to establish good relationships with the media. This not only helps to propagate the family planning message, but also forestalls the spread of adverse rumors or misunderstandings. For rural communities, it is important to communicate using a vocabulary and metaphors which the local people will understand and relate to.

*Space your children like your rubber trees,  
even your legs are apart.*

People usually understand that anything that is widely used may occasionally have side effects.

*Although the shrimp is very tasty and good,  
eating it can give some people a rash.*

In several large rural developing countries, practicing physicians are located within walking distance of almost 80 percent of the rural population. These physicians (such as the Ayurveds on the Indian subcontinent) are not trained in Western medicine and utilize traditional herbal medicines, which the villagers are willing to pay for. Many also prescribe family planning medicines which are of dubious value. It was suggested that these physicians be used to dispense oral contraceptives which have been repackaged in a container consistent with that of indigenous medicines. These physicians could also be trained to treat side effects associated with pills.

Finally, participants felt more emphasis could be constructively given to the beneficial or humorous aspects of family planning. Colored condoms are easier to distribute than plain ones. The pill reduces menstrual blood loss and therefore makes women less anemic.

*It makes your breasts more beautiful and is good for everyone –  
including the tailors who have to make bigger brassieres.*

## Programs

Just as the general concept of family planning is more important than the details of the particular methods, so the commitment of program managers and their organizational skills are more important than the detailed structure of the program itself. In reviewing the wide range of programs represented at the meeting, a number of common factors that contributed to success were isolated.

1. Active promotion of the use of family planning methods is necessary. This part of the program contains many elements of *marketing*.
2. Successful programs usually involve a systematic, doorstep coverage which may start with a locally based distributor or with the work of a visiting team who saturate an area on a particular occasion. The approach should be systematic and may involve the creation of a local map.
3. Successful programs are aware of the destructive effect of adverse rumors and make a carefully planned attempt to understand such rumors and to counter them. They make the maximum use of satisfied clients.
4. Successful village and urban programs invariably build upon local social and administrative networks. They always secure the support of local political or religious leaders. Local leadership is not only involved in the promotion of family planning, but it is often a basis for maintenance and re-supply of the program. Where available, women's organizations have proved most successful.

### Types of programs

There is a hierarchy of programs extending from hospital-based services that involve a few highly trained individuals working for a salary (or in the case of doctors, for a service fee) to very simple community-based programs that involve tens of thousands of villagers with minimal training, often working only part-time, either as volunteers or for nominal financial compensation.

*All the full-time people are only giving part-time work, so why not employ only part-time people?*

To a large extent, the type of program used is the result of the political constraints facing the program manager. (Refer to Section V.) The hospital-based programs, which can usually be organized most readily, are often limited in their outreach and more expensive per acceptor served than simpler programs.

An important, but neglected, type of program involves private initiative to provide surgical services and social marketing services. The contribution that can be made by the sum total of individual practitioners is substantial. The organization of free standing, non-profit, private clinics is an especially promising approach.

Some important successes have grown out of the use of loan money to meet investment and start-up costs; examples were given from India and Thailand. The adoption of the philosophy and skills of marketing and modern advertising in the cause of oral contraceptive

and condom distribution allows cost-effective programs to be initiated rapidly and adjusted to the needs and perceptions of users, while permitting prices to be adjusted to circumstances.

• Give away or pay

There are strong reasons why villagers and the urban poor should pay for certain services. It is a step towards self-sufficiency; it is evidence of a high probability of use; and it is a means of rewarding the most junior field staff in a way that is difficult to corrupt, is adjusted to the work load, and which, in addition, serves as an incentive. Sometimes there are breaks in the government give-away pipelines, but when the distributor's income depends on distribution of contraceptive supplies, then the supplies just do not run out. There is some evidence that the continuation rate of the contraceptives is higher when people have paid for supplies than when they receive them free. Community-based distribution systems and social marketing programs using shopkeepers, trained personnel, or local depot holders are achieving good results.

At the same time, it is recognized that in deep rural areas and among the totally indigent in cities, there is a considerable number of people for whom services must be provided entirely free of cash payment.

*Some people must choose between half a kilo  
of sweet potatoes and a cycle of pills.*

But even when supplies are given away entirely free, it is important to recognize people's self esteem and encourage a dignified system. Some users will exchange a service for the help given.

*Nothing is free to the villagers, not even death.*

Therefore, it was agreed that family planning services must establish a plurality of systems. There is convincing evidence that it is possible to operate several different distribution systems side by side without one competing with the other. Four options are open and all may well be necessary for most countries.

1. Free distribution of contraceptives and services
2. Subsidized distribution or social marketing
3. At cost distribution
4. Commercial distribution for profit

These systems are seen as possible evolutive steps within the country. One constructive approach is to tax the rich by making a profit on services they require and use the profit to subsidize services for the poor.

On the whole, the urban poor will find it easiest to pay for services. In very broad terms, it was felt that perhaps 15 percent of the rural population might use a social marketing system; approximately 25 percent would be able to buy at cost; and another 25 percent

would require a totally free service. One possibility would be to use teachers or postal workers to provide the free supplies needed.

*There is no such thing as a free program — someone pays.  
If the money comes from outside, there is no  
guarantee it will continue.*

• Role of loan funds

Most donor support of family planning has involved grants for capital and running costs. Often these are necessary, but new, more self-sufficient possibilities are arising, and participants hope these will be looked at more intensively.

Some social marketing projects and other community-based distribution schemes use a sales element and become financially self-supporting given sufficient time. With a secure, free supply of commodities, they have generated surpluses in five years and less.

*If we have the commodities and the will, we can do it!*

Revolving loan funds covering start-up costs of community-based programs are a possibility, although untested.

Proven models exist showing the effectiveness of loans for sterilization and abortion services. The surgical methods of fertility regulation are repetitive procedures that lend themselves to high turnover. A small number of excellent centers have demonstrated that privately owned facilities, or facilities run by nonprofit organizations, can provide inexpensive, high quality services that are accessible to many people. The service can be extended to some indigent cases, either by using financial surpluses to subsidize a proportion of free cases, or government and larger organizations may choose to buy into a well run, high volume center, where they are likely to find the costs less than in a hospital situation. In government hospitals, the diversity of cases being treated increases average costs, and it must be admitted that in public institutions the pressure to deal with a large number of cases efficiently may be less than in a private facility where the staff are sometimes paid on a case by case basis and where pride in ownership and managerial flexibility encourage cost-efficient work.

**In a public institution they need three nurses to look after two patients,  
but in the private sector, one nurse will look after all the patients around the clock.**

On the whole, government family planning programs have ignored private doctors and private institutions, although they are often highly regarded by the public and even the very poor will use their limited disposable income to buy private medicine when sick. A greater involvement of private doctors would not only spread the work load in family planning, but could help secure the support of private doctors for family planning.

• Transport

Transport presents a recurring problem in developing countries, and this component may take a significant slice of the program budget. But, as with other aspects of family planning, it is a problem best solved from within the resources of the country. Transport should be

appropriate, and bicycles, motorcycles and even buffalo rides are often the natural way for field workers and supervisors to travel. When vehicles have to be purchased, it is best to buy in-country. In India, for example, locally produced vehicles cost one-third the amount of comparable imported ones. Spare parts and servicing are easier with locally produced vehicles.

#### Training and salaries

Training involves field staff and supervisory staff. Supervisory staff are usually full-time, while field staff (distributors and referral agents) are often part-time. Both groups require well planned retraining programs in addition to their first training courses.

A program requires two types of field staff: (1) *grass-roots* workers who are concerned with the promotion and distribution of simple contraceptive methods and (2) trained personnel to undertake the surgical aspects of family planning and assist with the reversible methods, especially IUD insertion and follow-up. Field staff are usually required at a ratio of 1 to 5 000–10 000 population. While lower ratios can be advantageous, the closer services are brought to the community, the more likely field workers are to be part-time employees.

At the field level, staff have been successfully taught the essentials of family planning in one or two days, and oral contraceptive distributors have received effective, initial instructions in as little as one and one-half hours.

Training is simplest if it is confined to imparting a single, relatively straightforward skill and then bringing workers back for a second training session some time later, during which they share their working experiences and are taught a second skill. Such repeat training sessions are very rewarding. They sometimes take place as quickly as one month after the initial instruction, but may be 6 to 12 months later. It was the participants' experience that field workers are much more open, questioning and eager to learn at this second session.

*Housewives have a maturity, family life, experience  
and motivation to do an excellent job in field work.*

Training should be brief. If all instruction takes place within a single day, there is a saving in hotel costs. Further, some of the best people at the village level cannot afford to be away from their families, shops, or other work for longer.

Role playing is useful in bringing out misinterpretations of what has been taught, allowing correction and reinforcement, and strengthening the field workers' ability to make persuasive arguments for the adoption of family planning. The effectiveness of training should be measured by output, not by evaluation of the students or other indirect means.

A major bottleneck in training remains *who does what*. Legal and administrative definition and protection is required to enable the maximum delegation of duties, especially in relation to the reversible methods of contraception.

*I'm sure we could train monkeys to prescribe the pill soon!*

On the whole, nongovernmental agencies pay better than governmental services, but they usually offer less security and less chance for corruption. Participants wished to be able to pay salaries to fit the job and compete with private business. They felt that a small, well paid, full-time staff was more effective than a large, poorly paid one. Outreach can be

secured through the use of large numbers of part-time volunteer distributors, whose reward, if any, is limited to a percentage of the selling price. The case of one large government program where 92 percent of the budget goes to salaries was quoted.

*If the government builds a road it doesn't argue  
with the salary of the contractor's managing director.*

A difficulty that has arisen between field projects and their supporting agencies is a lack of a fixed life for the project. A project should have a defined life making it reasonable for good staff to leave present employment and enter family planning.

*All of a sudden – puff! How am I to get good people?*

... one manager's description of an internationally funded project where the responsibility for the support was transferred without warning.

### **Reporting and evaluation**

All practical people running efficient programs find they are called on to keep more detailed records than they would wish. Record-keeping is part of a ritual which they recognize is necessary to secure funding, but it would be constructive, save money, be more convenient to the user, and boost morale if record-keeping were analyzed critically.

*Ten percent, or even less, of the records kept are ever used.*

Records should not be kept unless there is a clear idea of the purpose for which information is being collected. From the program manager's point of view, records have two purposes. First they help to define local targets and ensure systematic coverage of an area. In this situation records may be kept on such straightforward items as:

- |                  |                              |
|------------------|------------------------------|
| – House number   | – Number of living sons      |
| – Name           | – Number of living daughters |
| – Age of husband | – Advice given               |
| – Age of wife    | – Method adopted             |

Second, records allow management to monitor the progress of a program. In this case, a sample of users may be used, although to date there has been no study to compare possible differences in cost between sample surveys and the computerization of a record system giving total coverage.

*If you want to know who takes it, for how long,  
and what size feet they have, do a sample survey.*

Nationwide or regional evaluation of programs often highlights areas with poor performance that need extra attention. The action organizations within a country should provide regular reports on their achievements by the number of acceptors and costs to donor

agencies. A monthly report of achievement statistics and a four- to six-month report of financial audit are reasonable.

It was suggested that the following format be used for submitting information to donors:

– Date	Expenditure budget
Methods	Total budget
Paramedics	Generated income
Doctors	– Public image
Number of acceptors	– Future aspirations and plans
Target population	

Participants who run large programs preferred evaluation based on numerical achievements. They were critical of more amorphous types of evaluation which are all too common in current programs.

*Not whether you have an IUD in the uterus  
or hanging on the stomach, but how many babies  
are born and how many stomachs are swelling.*

In the final analysis, they wanted to be judged by the effect their programs have had on the birth rate.

#### **Costs**

To be successful, family planning must reach hundreds of millions of people. Cost-effective work is of the utmost importance. While it is acknowledged that innovative, pilot projects are likely to be more expensive than large established programs, nearly all participants were running programs which were cheaper than average for family planning. Indeed, one of the characteristics of an effective program to bring family planning to the poor is that it is likely to be cheap.

In general terms, community-based and social-marketing projects cost \$2–5 per acceptor, exclusive of contraceptive commodity costs, but including promotional costs. Vasectomy and early abortion can cost as little as \$5–10 and female sterilization \$10–15.

*Really, the international agencies are spending millions  
of dollars not so much to help people plan their families  
as to make the controversial aspects of the work  
politically respectable.*

Limitations on the delegation of procedures to appropriate personnel can raise costs. Political hostility also makes programs more expensive. The treatment of incomplete abortions following illegal operations is more costly than early abortion performed legally. Abortion is probably the area of fertility limitation most likely to become self-sufficient

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given a suitable system of laws and regulations. Some people, even among the poor, will pay for private sterilization.

Participants all looked forward to varying degrees of self-funding. Although they might not cover all their costs, programs which involve some local funding won wide approval from the group.

Many participants felt it would be unrealistic to rely on outside support too far into the future. Just as programs are now beginning to look at the problems of local funding, so they are also becoming more and more self-sufficient in technical expertise, and where this is not available, consultant services from sister projects in the same or another country are becoming a possibility.

### COST OF PROGRAMS

Program*	Years of Service	Population Served (millions)	Acceptors (per annum)	Annual Budget (US \$)	Cost per Acceptor (US \$)	Income From Acceptors (US \$)
Sri Lanka (CBD)	4	13.5	144 000**	311 200	2-16	\$142 750
India (Maharashtra Government)	10	7.5	165 000	1 200 000	7.7***	None
Philippines (INC Mobile Clinic)	3½	4.8	285 000	250 000	1.0	None
Thailand (CBFPS)	3	5.0	157 000	560 000	1.7	\$300 000
Indonesia (Government FPP)	7	2.3	126 000	300 000	2.4	None
Nigeria (FP Clinic)	12	1.0	9 700	33 000	3.4	None
Philippines (INC Sterilization Project)	2½	0.5	4 210	48 000	11.4***	None
India (Health Promotion Society)	2½	0.2	14 000	58 000	4.0***	Self-sufficient

\* A description of each of these programs appears in the Appendix.

\*\* Four million eight hundred thousand condoms were distributed over 18 months, for an assumed annual use of 62 condoms per man (KAP survey shows 12% of the couples using condoms).

\*\*\* Includes a significant number of sterilizations.

## FAMILY PLANNING AND SOCIOECONOMIC DEVELOPMENT

Family planning is an essential element in the development process. Linking family planning to other aspects of development is logical and increases the credibility of those running family planning services. Participants were eager to integrate family planning with broader services when practical, and many had convincing experience of weaving family planning together with other health services (for example, immunization) and development projects.

*What you have, you utilize.*

However, there was also an awareness that some of the more grandiose schemes for integrating family planning with health services have not worked, and there were criticisms of policies both inside and outside countries. Indeed much rural development, even apart from family planning, has not gone well. It was concluded that development implies a change in attitude and behavior by villagers. Therefore, relatively small changes and adjustments should be sought, but ones which at the same time require the villagers' participation. Family planning meets these requirements, and one suggestion was to devise a system of *fertility related development*.

*Start with sex.*

The addition of parasite control to family planning services in selected Thai villages boosted pill use by 25 percent. Parasite control, like family planning, requires relatively small changes by the rural community, but still demands real participation. In return, it produces visible, rapid benefits. Therefore, this is one pair of activities which can be logically and constructively linked. At a later stage, other aspects of nutrition and health care could be added to a well organized and adequately trained system of village family planning workers.

*If the additional task elevates the status of the family planning worker, it will probably work.*

In the economic field, contraceptive distributors could take part in better market programs (better prices for buying and selling local produce handled in bulk) and perhaps even in developing small cooperatives and, ultimately, cottage and small-scale industries.

*We should act like a locomotive and add bogies. An extra load of fertility control would be most helpful.*

Cooperatives, in turn, can help in family planning services. A milk cooperative collection system could also transport people from villages to towns for the surgical methods of fertility control.

The greatest economic problems in the villages of the developing world are employment and credit. Family planning, in a small way, contributes to village employment, but only if

part-time village workers are used. If city-born matriculates are employed as field workers (which is often the case), there is no benefit to the village.

Credit systems are an important part of development and can be related to family planning in several ways. Where rural banking is already developed, as in the case of the Syndicate Bank in India, bank workers could make suitable family planning agents, because they belong to a trusted and existing outreach system. Conversely, family planning village representatives might form local credit unions of ten or more people, where interest rates would be adjusted downwards in increasing increments with time, if none of the families had additional children — the so-called *Nonpregnancy Agricultural Credit*. Analysis has shown that defaulters on loans often have extra children during the interval of repayment, and some banks are willing to review the ideas under discussion. Another relationship between family planning and credit involves long-term security. For a very small investment (approximately a dollar a month per worker) and a given commercial interest rate, a substantial sum (\$2 000) accumulates over a working life time. Employers and workers might invest in such savings plans which for the poor of the developing world might be termed *Irresistible Bonds*. Payment of the bond at maturity could be based on the condition that the worker have no more than two children over his fertile lifetime.

It is notable that the examples given and the ideas put forward, all involve integration at the village level. It is here that different services are brought together. The ideas presented by some of those who have managed successful field programs are in marked contrast to much else that has been discussed in relation to integrating family planning with other aspects of development, where the hoped for coordination supposedly lies at the center.

*Integrated government programs often don't work.*

On the whole, coordination at the village level is more realistic administratively. The record of liaison between different civil service ministries or different international agencies is poor.

*The UN system doesn't even talk to itself.*

Therefore, there are dual pressures to build up integrated programs from the village level rather than to try to organize them from above.

The education of the world's poor is a key factor in all socioeconomic development, and again, development in this area can be closely linked with family planning. The role of school teachers as contraceptive distributors has already been noted. Teachers can also influence children and, for example, in Thailand tens of thousands of school children have been taught a jolly family planning song. Since 80 to 90 percent of the children in many rural areas drop out of school before the fourth grade, family planning education needs to start early. Village life is unembarrassed by the facts of human reproduction. (Many children share a sleeping space with their parents.) Children may well be aware of the actual contraceptive method their parents use. Conversely, a school teacher can capitalize on parents' normal concern for the welfare of their children to promote family planning. Schools can also do something to encourage later marriage. Again, in the Thai example, the goal of marriage at 30 for men and 25 for girls is being advocated.

*Early marriage is like eating a melon not yet ripe.*

Cultural patterns for most rural poor dictate that girls be carefully chaperoned from menarche to marriage. Loss of virginity before marriage can have catastrophic effects; in a few areas, the family may even murder the girl. With no opportunities for employment outside the home in a structured environment that the parents could trust, marriage is arranged early and another generation of the same pattern is propagated.

Economic activities for teenage girls outside the home will lead to delayed marriage and, in turn, delay the first pregnancy. The challenge is to find constructive employment outside the home in surroundings that will meet the approval of village elders and that will provide somewhat more income than the additional cost of maintaining the girl in the family. Work opportunities outside the home, such as teacher aides to assist primary school teachers, and spinning and weaving in a large handicraft center, should be found or developed in rural areas.

University students represent one previously untapped source of assistance. To take a Thai example, 200 scholarships are being offered this year. The students are eligible for a one-year scholarship if they can successfully motivate 50 people for sterilization. An additional advantage is that the organizers of the program know the caliber of these students, and after graduation, can employ several of them as very effective family planning workers.

## BARRIERS AND BOTTLENECKS

The common presumption that the main barrier in taking family planning services to the world's poor lies in their lack of response is clearly unfounded.

*It is harder to get an American to eat with a spoon  
than to get a villager to use a contraceptive.*

Those who have run successful field programs would obviously appreciate and use effectively any technical developments made available in the field of fertility regulation. However, they accept the consensus of specialists that while continued improvement may be expected in certain methods such as female sterilization, it is unlikely that totally new methods will enter service programs at a rate which will render the existing methods obsolete.

It was everybody's experience that the major bottleneck in family planning invariably turns out to be political indifference or opposition rather than reluctance on the part of the potential consumer. Inside the country, strong political backing is essential for successful family planning programs. The ideal desired by the participants was that each country have a national policy unanimously endorsed by all parties, but kept free of political considerations and passed down through all levels of the administration, religious leadership, and community. The remarkable acceleration in the number of sterilizations (7 million) performed in India in 1976 was attributed to the strong political backing given to the National Family Planning Programme. By contrast, in Africa, the most important restraint on those wishing to establish and extend family planning programs was felt to be the ambivalence and sometimes even open hostility of the political leadership. One of the ways in which indifference or opposition within the political leadership affects family planning programs is the range of methods and the type of personnel which can be used. Generally, the more conservative the political climate, the less likely it is that there will be free access to surgical methods of family planning and the more likely it is that managers will be compelled to utilize more highly qualified personnel than the techniques demand. When programs lack political backing, their promotion and advertising, which are essential to the success of the program, are difficult; and when opposition is extreme, the service may even be forced to maintain a low profile to avoid provoking the establishment.

*Family planning always begins  
in a controversial environment.*

Programs have a two-way relationship with government. It is usually in the interest of managers of family planning programs to work closely with the government. By involving government officials at all levels, the program manager secures the protection of the government and increases the probability of influencing government policies.

While recognizing the preeminence of the political constraint in family planning, the unanimous experience of the participants had been that those with a commitment to family planning invariably found themselves in a position where they could set the pace.

*I will break any law in the cause of  
family planning if the people force me to.*

Even though in some countries, specific aspects of family planning remain controversial, those who have had the insight and courage to push programs forward, have never moved so quickly as to generate public backlash. At a national level, the example of predominantly Muslim Bangladesh is relevant. The knowledge and practice of menstrual regulation was diffused throughout the country by a private nongovernmental organization, and then became an accepted part of the National Family Planning Programme.

*The law is always 10 years behind you.*

At the individual level, Mrs. Maria Guadalupe de la Vega demonstrated how political and religious hostility could be turned to advantage. Every step of her program was boldly advertised, and each time opposition arose, she was able to secure further publicity and to use the press and television as a platform for explaining the project's aims.

The reason for the strongly felt opinions of all of the participants on the strategies to be followed in driving family planning programs forward and securing much-needed political leadership lies in their knowledge of the public demand for a wide range of realistic family planning services. Family planning is a basic human right, and although not everyone may wish to avail themselves of services, men and women as private individuals are sympathetic towards family planning programs. Opposition commonly arises from political circles and from the socially privileged, and even within those parts of the family planning establishment that are already politically acceptable.

The second major bottleneck after the political, which all participants identified, involves the relationship between field staff and donor organizations.

## DONOR ORGANIZATIONS

Money, commodities, and technical assistance are required to help take family planning to the poor. In nearly all developing countries, and especially those with the highest proportion of rural population, external aid is essential now and is likely to remain important for many years.

A variety of donor organizations exist which have different but hopefully interlocking roles. The International Planned Parenthood Federation (IPPF) is the largest nongovernmental organization and has played an important role in nearly all countries. A number of small and more specialized nongovernmental agencies, such as Population Services International (PSI), International Project of the Association of Voluntary Sterilization (IPAVS), Family Planning Assistance International (FPAI), International Fertility Research Program (IFRP), and International Pregnancy Advisory Services (IPAS) also play an important role. It is notable that with the exception of IPPF, all of these nongovernmental organizations began in the USA, but many (IFRP, IPAVS, PSI) have given rise to local autonomous entities. Among the governmental agencies, the United Nations Fund for Population Activities (UNFPA), the World Health Organization (WHO), and the World Bank are examples of powerful organizations with resources to meet the requests of national governments. International assistance agencies of some of the most heavily involved donor governments (USA--USAID, Canada--CIDA, Britain--ODM), have staff and consultants who are professionally involved in family planning and make an important contribution to technical assistance.

Sometimes donors work directly through bilateral agreements between the donor and recipient in selected countries and indirectly through governmental agencies like the UNFPA and nongovernmental agencies like IPPF. An important distinction lies in the fact that both in the case of the intergovernmental agencies and bilateral agreements, programs can be initiated only at the request of the recipient government, while nongovernmental agencies have greater freedom of action to initiate experimental projects. Most of the participants at this workshop had worked with both governmental and nongovernmental projects, and all recognized and valued the different opportunities which this variety of support offers.

But family planning is still a rapidly changing field, and much of the work being done is of an experimental nature. Programs sometimes succeed, but on other occasions they fail and should be curtailed or heavily revised. It is, therefore, not surprising that the participants in managing active and successful field programs had found their relationships with donor organizations a key factor in their work. After the need for strong political backing within the country, participants rated their relationship with external donors as the second most important consideration, and they usually found it required as much, or more, of their time and ingenuity as did the actual work of carrying services to those in need.

Those running successful programs had criticisms of donor organizations and offered a number of constructive suggestions. Everyone accepted that as organizations grow larger, they have to adopt certain necessary bureaucratic procedures. Inevitably, this reduces flexibility of action to some extent and slows decision making. At an international level, if there are demonstrable limitations in existing organizations, donors should not be afraid to support new organizations.

At a national level, although a multiplicity of organizations appears tiresome, it can allow a flexibility of action that could not otherwise be achieved. Particular problems arise in the case of international organizations which have local national affiliates. Such affiliates

tend to be founded at different times and, at any one point in time, to have achieved different levels of maturity. As the parent body grows, it may find the need to fund organizations other than its affiliates. Some of the participants felt that not only was this a critically important issue for those working in the field, but believed that the time is approaching when unless action is taken by the international organizations, programs will be adversely affected, and eventually the organizations themselves will be jeopardized.

In the case of activities which are in response to national governments, flexibility of field support could also be achieved by including grants or loans to nongovernmental individuals and institutions within the country.

*Treat the private and public sectors the same.*

The amount of money set aside may be only a small percentage, but it can nonetheless have far reaching effects on the overall development of family planning in the country. The precedent set by the World Bank and the Bangladesh government in setting aside funds of this sort has been successful. It was suggested that nongovernmental organizations be represented and their long-term interests considered when a proposal between a country and an international agency is initiated or when a bilateral agreement between two governments is being drawn up.

As programs move towards a degree of financial and technical self-sufficiency, the possibility of loans as well as grants increases; and as local and regional, as well as donor country consultants become available, this series of changes necessarily implies alternations in donor staffing. Donor organizations are entering a time when their technical and administrative staff can be cut back relative to the budgets flowing through an organization.

*The . . . will not exist in eight years time  
if it doesn't pull its socks up.*

Criticism was expressed of some donors, whom it was felt supported projects because they were politically convenient or merely because they had been done before. On the other hand, some innovative projects find it difficult to get the resources they deserve.

*I thought I had a good model of intervention  
and it would get support. But it didn't  
and I really don't know what to do.*

#### **Aims**

All international and bilateral agencies supporting family planning should:

1. Be oriented to support achievement. They should not be restricted to assisting one organization or type of organization.
2. Encourage local funding and consider grants to match local fund-raising contributions and in other ways assist in long-term self-sufficiency. Supplying commodities for resale and providing loans to private practitioners or charitable institutions would also encourage local effort.

3. Ensure that money and commodities arrive in the right place at the right time without breaks in the continuity of supply.

*There are workshops, task forces, this, that, and what not,  
but in the big field programs things just aren't there.*

4. Permit local managerial flexibility. The local manager may need to re-allot as much as 15 to 20 percent of his budget to adapt to changing conditions. The need to change the plan of action when confronted with a crisis (either of opportunity or of a disrupting type) is even more important.
5. Provide for growth. If a program exceeds targets, there should be an automatic proportional addition to funds of up to 30 percent.
6. Respect local conditions. It is very important that donor organizations avoid imposing foreign value systems from above with respect to family planning methodology and management. It is also desirable for donor organizations to avoid promoting their public image. While informed leaders and often the government are usually eager to know about outside support and applaud it, the pressure for public recognition can be counter-productive. A good donor is often *whisper quiet*.
7. Manage by objectives. Clear management policies and excellent staff performance are not only prerequisites for a successful international organization, they are the only basis on which an efficient and trusting relationship can be built between the donor and the recipient.
8. Encourage the establishment of autonomous bodies in each country. Such organizations should strive towards self-sufficiency in skills, organizational costs, and ultimately, in bulk purchase of contraceptives. Participants felt that an organization that was performing well should not have to fear short or middle-term funding, but at the same time, they felt that donors should feel free to support other organizations even in situations where there was an affiliation between two bodies.

#### **Structure and staff**

Donors should back people rather than programs. A donor organization should adhere to policies set by a board which lays down guidelines to determine priorities. The participants suggested some ways of maintaining flexible and rapid action for as long as possible, and also encouraged the continuation and further evolution of a range of organizations of different sizes. A donor organization should have a tight-knit, slim, efficient, competent secretariat. In order to keep the staff to a small and manageable size, the organization should rely heavily on subcontracting both expert services (consultants) and financial and other services.

The most effective projects have often proved to be those worked out in the field by a local person and the representative of the donor organization.

*Most funding agencies send a man who  
tells you what you are doing is wrong,  
but does not tell you what to do.*

The visiting representative of the donor organization should be experienced in the type of project involved and be delegated a high degree of authority. Such advisors are likely to be those who will go on to monitor the project for the donor organization and continue to work as a team with the local staff.

*Not somebody from the capital who dresses differently,  
looks different, holds a cigarette differently,  
but somebody they know and respect.*

Advisors should be competent to teach new techniques and organize administrative systems through practical demonstrations and should be willing to stay long enough to provide thorough training. There is a need for financial analysts who can give advice on ways of achieving optimal output. The selection, training, and experience of the project monitors and advisors of the donor agency are critically important.

#### **Provision of money**

Given regular reporting by the recipient and good project monitoring, the donor should be in a position to anticipate the demand for money and make efforts to ensure that such monies are available. Where possible, programs should provide for short-term, partial local funding and total self-sufficiency in the long run. Donors and recipient organizations should spend money rapidly, and seek further support aggressively as the need expands. Loans by donors to local family planning organizations have been tried on a limited scale, but could potentially be much more significant. They could be linked to achievement. Monies could be reinvested locally, overcoming currency exchange problems and further encouraging achievement. Internal repayments might be reduced for organizations fulfilling or over-fulfilling targets, thereby boosting performance and responsibility.

#### **Commodities**

The free supply of contraceptives encourages local initiative and is a step towards self-sufficiency. To be useful, the supplies must be provided without strings attached to their use, and the recipient should have flexibility to deploy them in the optimum manner local conditions allow. Since they have seen the type of programs which can be built around the social marketing of contraceptives, participants have concluded that programs of this sort could be initiated in any country and that they would not adversely affect existing family planning programs. It was also pointed out that they could help build a market for manufacturers and that they need not necessarily detract from such a market.

International agencies and government donors from developed countries were requested to review very carefully the experience of programs funded on the free supply of contraceptives and to become donors of contraceptive commodities in the way that Sweden-SIDA and US-AID have pioneered.

### **Constraints**

National governments sometimes impose unnecessary constraints on the pioneering and experiment needed to keep programs at the frontier of opportunity. The bureaucratic process necessary to obtain approval for projects and funding from one or more ministries or from a national family planning coordinating or supervisory body is counter-productive.

*It is oppression, suppression, and compression all the way –  
our conditions are so difficult I could sit down and weep.*

It was felt that donors had sometimes failed to spell out the possible long-term future of projects. Reports were made of program leaders who had left secure employment with the encouragement of a donor agency to face a new challenge in their country and then found themselves without the anticipated support.

Most people who had managed active and successful programs felt that they were being over-visited by representatives of donor agencies who often had little to contribute.

*Experts in saying nothing and doing nothing.*

Some large organizations use personnel as advisors who do not have field experience in the problems involved. However, the participants emphasized that selected, competent assistance from donor agencies was not only needed, but welcome. Predictably, donor organizations do not always find it easy to keep up with the pace of change in the evolution of local family planning events. Some participants criticized the "tunnel" vision of organizations who have failed to change with the times.

## CONCLUSIONS

Successful family planning projects exist in a wide range of countries and take the reversible methods of contraception to poor communities at a program cost of approximately \$2-5 per acceptor. Legal early abortion and vasectomy cost \$5-10 and female sterilization \$10-15. The legal and administrative freedom to delegate contraceptive distribution and simple surgical tasks to appropriately trained and supervised auxiliaries is one key factor in the success of programs.

*If we cannot make the pill available without prescription in a crisis like this, we have failed in family planning programs. Each country is anxious to do it.*

Participants made use of whatever range of methods, national laws, the central administration, or accidents of history permitted. They all wished to add additional fertility regulation options, particularly surgical, where they were not available.

The reversible methods of contraception need to be taken into every village community and, if possible, to every person's doorstep. Even IUD users, while they may have to travel a short distance to have the devices inserted, require a village-based organization to support use. Sterilization and abortion require slightly greater facilities. Sterilization camps can take this option into rural areas on an interim basis.

All participants agreed that meaningful, well organized programs found ready acceptance. Up to half the eligible couples adopted family planning within a relatively brief period after programs began. Promotional and educational campaigns are very necessary, but must be preceded by a realistic availability of methods.

In all situations, at least one section of the community would wish to and would be able to pay for part of the service they received. At the same time, it was recognized that a plurality of programs is required, and free distribution is essential if the needs of all the world's poor are to be met. Two neglected, but important, donor strategies were emphasized. The first is to make available free supplies of contraceptives and permit these to be sold in field programs, at minimal cost, to provide reimbursement to distributors. Any financial surpluses beyond compensating field workers should be available for local use without restrictions. Some rural programs could become financially self-sufficient (given free commodities) in three to five years. The second is to give loans to help set up private sector surgical services which can provide cost-effective and attractive services to at least one part of the community.

The main problem facing program managers turns out to be not the logistics of carrying services into village areas or motivating village people to plan their families, but the degree of political backing enjoyed in a country and the need to secure outside financial and technical assistance while retaining necessary managerial freedom at the field level. Dynamic local leaders are the basis of many successful programs and nongovernmental agencies have had, and continue to have, an important role to play in initiating and supporting new field projects.

The relationship between field programs and government is somewhat complex, but always of the utmost significance.

*Without government we are helpless. It's  
like a man and a woman – you need both.*

Government support at the policy level greatly diminishes the difficult task of those running family planning field programs. Participants felt that care should be taken to involve governments at the initiation of a project and that this involvement is usually welcomed by government personnel even though formal government participation might not be immediately possible with innovative and controversial projects. Indeed, here is the kernel of the problem; in some cases nongovernmental activity is vital to carry family planning a step forward, but usually that step becomes significant only if it leads to government sanction and support of the method or program. The early relationship between the government and program administrators is often fragile and requires the greatest judgement and diplomatic skill. Nevertheless, the local project manager, backed by a trusting donor organization, could work miracles and several of the participants had moved programs from the point of being outside, even disliked by governments, to acceptance and approbation.

Family planning programs have to keep pace with opportunities and, on the whole, the current pace of change is rapid. The other side of the coin in a rapidly changing world is to ensure that the system necessary to terminate past projects is working well. Projects, and even organizations, may benefit from coming to an end as soon as they have outlived their usefulness, just as the sunset ends a day of hard work.

Finally, it was the unanimous opinion of all the participants that no effort has greater potential for enhancing the health and socioeconomic development of future generations than improved delivery of family planning services to the world's poor.

Appendix  
**PARTICIPANTS AND THEIR PROGRAMS**

**INDIA (MAHARASHTRA)**

The Maharashtra State Government Family Planning Programme was established in 1966 and serves a population of 7.5 million people, many of them pavement dwellers or very poor villagers. It has now achieved the level of success necessary to lower the birth rate. Currently, approximately 70 000 sterilizations and 25 000 abortions are performed annually. Fifty thousand people are using conventional contraceptives, and 10 000 are using IUDs and/or orals. Services are offered free, and the annual cost of the program is 10 million rupees (US \$1.2 million).

Dr. D.N. Pai, the dynamic leader of the program has probed continually for new and innovative channels of service. For example, he carried the option of vasectomy out of the



*Dr. D. N. Pai*

hospitals (which the poor perceive as a place "where you go to die" and, therefore, fear) into the familiar daily environment of the city's railway stations. Later he set up vasectomy clinics in old and battered municipal corporation buses. Today, he has taken the ultimate step of offering the operation in portable hessian and bamboo booths which cost less than \$70.

Yet, Dr. Pai remained restless and realized that additional creative opportunities might still exist in the private sector, even in an area as well served as Bombay, the capital of Maharashtra State. Two and a half years ago, he set up a nonprofit organization and opened a private family planning hospital. This hospital now annually performs 2 000 sterilizations, 7 500 abortions, and serves 2 500 people with reversible contraceptives.

The low fees of Rs. 70 (US \$8) per surgical procedure (in a situation with high turnover and cost effective use of staff) are sufficient not only to cover the overhead, but to repay the starting capital required to open the service. The hospital appeals mainly to the lower middle class, but it relieves pressure on government services and can afford to offer a proportion of its services free to the indigent.



*Dr. I. B. Astawa*

**INDONESIA**

The island of Bali has a population of 2.3 million. The Government Family Planning Program began in 1970, following the stimulus of the work of the Indonesian Planned Parenthood Federation supported by the IPPF.

Dr. Astawa is responsible for the government program in the island, which may well be the most successful in any part of Asia. Fifty-four percent of all eligible couples now use some contraceptive method: 70 percent use IUDs; approximately one-fifth use pills; and the remainder either use condoms or have been ster-

ilized. In 1970 the birth rate in the island was 43 per 1000, but by 1976 it had fallen to approximately 26.

Several factors have contributed to this breakthrough. At an early stage of the program, the responsibility of IUD insertion and follow-up was transferred from a small number of doctor-run clinics (13) to a large number of paramedical-run units (150). Most of the population is rural, and maximum use was made of the local village political unit or *banja* (total 3 600 in Bali). A woman rarely has to travel more than 3-5 kilometers to find a clinic that performs IUD insertions; in the more remote villages, a mobile team operates. A doorstep distribution of pills is carried out by the *banja* leader, who is responsible for preparing a map showing every house in the village and for recording contraceptive use. The *banja* leader is particularly well informed about those couples who have not accepted contraception.

The program is organized and supervised by Dr. Astawa and eight senior staff. The field staff, including the medical workers who insert IUDs, number 500. The total budget is US \$300 000 per year, and there are 126 000 acceptors (\$2.40 per acceptor).

The only bottleneck in this program concerns the surgical methods of contraception. Male and female sterilization are a relatively recent addition to the program; at present these methods have been provided for 2.7 percent of the program participants, but the numbers seem certain to rise. Although abortion is illegal in Indonesia, as is usually the case, illegal procedures have been an important contributor to the decline in the birth rate. Unusually, though fortunately, most of the practitioners of illegal abortion are skilled; their services are well known, and the women seek help early in pregnancy. It is estimated that approximately 15 000 early abortions were performed illegally, but safely, last year. The cost of an early abortion is about \$6.

## SRI LANKA

A nationwide social marketing scheme was launched in Sri Lanka in 1973. The brand names Preethi (for condoms) and Mithuri (for pills) were selected through surveys of potential customers. The first year target of distributing 3.5 million condoms was exceeded, and by 1975, 5.3 million were being distributed annually at an over-the-counter cost of US 4 cents for three. The local income already covers half the cost of the program, although the price to the consumer is approximately the same as smoking a couple of bidis a day (the cheapest, local handmade cigarettes).



Mr. Terry Louis

At the time the program was launched, the nonprescription distribution of pills was not permitted by the Ministry of Health, but a hybrid marketing system has proved practical. The woman receives the prescription through some aspect of the social marketing scheme. She takes it to a doctor for his signature and then purchases the pills.

The program got off to a good start because it was begun by Population Services International, a small,



*Lt. Col. Dennie Hapuqalle*

flexible nongovernment organization. A single person from outside the country was brought in for a limited time, and the necessary managerial, advertising, and distribution skills were rapidly assembled from within the country. The program has succeeded in attracting the approval of the Ministry of Health. The role of the external donor was largely that of providing money and commodities for a system which rapidly became self-sufficient and achieved its planned targets. Such a situation is the happiest that can face a donor, and in turn, the donor has the obligation of sustaining the trust and continuity of management as the program evolves and forms relationships with the widening circle of involved agencies in the country in which it is located.

In addition to high quality packaging and professional advertising, the program uses such varied promotional techniques as traditional puppet shows and the placement of coupons for contraceptives in infant food packages.

The program has benefited from the high literacy rate in the country and a very reliable postal service to cover the mail order aspect of its work. It complements clinic-based programs, where interestingly, contraceptives are sold even more cheaply.

When the total cost of the program is set against its achievement, the average cost per acceptor has been \$2.16, and it has cost \$30.50 to avert a birth.

The nationwide sales are an unequivocal testimony to the success of the program. The barriers that have arisen have been from religious groups and the social elite who are too far removed from the problems of poverty to understand the intent and philosophy of the program.

The Sri Lankan social marketing program is only one component in the country's family planning system. Twenty-five years ago, before independence, a group of pioneers founded the Family Planning Association which became one of the earliest members of IPPF. Their work has covered and continues to cover all aspects of family planning from service to policy making. Its major achievement has been in preparing the way for the National

Program which is the prime source of family planning for the country. Without the assistance of the FPA, the social marketing experiment could not have been launched.



*Dr. Siva Chinnatamby*

In 1933, the Association was able to offer only conventional contraceptives. At the beginning of 1960, oral contraceptives were introduced following a visit by Dr. Gregory Pincus to Sri Lanka. Dr. Siva Chinnatamby did some of the early research work in Asia on the use of the pill and has remained a leading research worker in hormonal and other forms of contraception. She played a major role in introducing IUDs in Sri Lanka; the method is now a significant part of family planning services. For a number of years the Association has also been offering injectable contraceptives. These are not

provided by the government, but have proved to be very popular. Currently, the Association is pioneering the role of sterilization. The Association uses nurse/midwives, health educators and social workers, as well as doctors, for its professional work. The budget for the Association is half a million dollars per year.

The quarter century of pioneering efforts by the Association have been rewarded by the fact that approximately 40 percent of the eligible couples now have accepted family planning services either through government, social marketing, or the FPA.

## PHILIPPINES

The Ingelsia ni Cristo (INC) is an evangelical protestant church with over 4 million members throughout the Philippines. The church leadership encourages responsible parenthood, preaching on a Sunday on such texts as Luke 23:29 – “Blessed are the barren and the wombs that never bare, and the paps which never gave suck.” Oral contraceptives can be picked up at the church after the Sunday service. On weekdays, vasectomies are performed in the church building by mobile sterilization teams.

Dr. Melanio Gabriel and his wife, Doctora Carolina Gabriel, organize wide ranging health services for INC members and have been the prime movers in the contraceptive and sterilization programs.



*Dr. Melanio Gabriel*

The program started in October, 1973, and now has 285 000 acceptors. It offers all methods, except abortion, and uses a large number of paramedical workers supervised by a small number of doctors. Women who use oral contraceptives in the INC program have the highest continuation rate (90 percent at one year) of any group anywhere in the world, including the USA and Europe. The program is supported by Family Planning International Assistance and the total cost per pill acceptor (excluding the cost of pills) is \$1. The 8 000 male and female sterilizations that have been performed average \$11.40 per case.

The INC program is complementary to the government's national family planning program, and acceptors are included towards the Population Commission's achievements. It already accounts for one-fifth of all family planning acceptors in the Philippines. Some of the alternative programs in the country cost \$6-7 per pill acceptor.

About one in 10 of the women using the pills, and as many as half of those using sterilization, are Catholics or Muslims who have sought services from the INC, which is renowned for its concerned care and follow-up. The Population Crisis Committee, through the IPPF and in collaboration with the Family Planning Organization of the Philippines, is assisting the INC to apply some of the lessons learned outside the church community. In this new project, specified poor urban and rural areas are visited by saturation teams consisting of nine paramedical workers, each one of which endeavors to visit 16 households per day. The teams bring pills and condoms into the homes and refer couples for sterilization. Each area is revisited three months later for follow-up, and long-term supplies are left with the community leader or church representative. Staff and volunteers specialize in particular

duties; for example, men considering vasectomy are visited in the evening after work by "machismo wreckers" — people specially trained to convince the men that sterilization will not adversely affect their manliness.

The Republic of the Philippines Commission on Population monitors the work of the saturation teams and appreciates the cost-effective work of the INC.

## INDIA (KARNATAKA)

In 1920, Dr. T.M.A. Pai graduated as a physician and returned to practice in a group of villages in what is now Karnataka State. He saw that health was wider than curative medicine:



Dr. Ramdas Pai

he saw the villagers being exploited by money-lenders, he saw the frustrations of illiteracy, and he was continually aware of the misery of rural poverty. Over an interval of 50 years, he wrought a miracle. He created a rural credit system which has now become the nationwide Syndicate Bank, one of the larger banks of India. Through community self-help and without outside assistance, he and his family patiently built up a school system, science and arts colleges (30 000 students are now in full-time education), and finally a 600 bed medical school hospital, which is about to receive university status. Over the years, the villagers have prospered, and a wide range of cooperative organizations such as a dairy industry and even a cooperative cinema and swimming pool have been established.

But the changes in development that have taken place in half a century have also led to new ideas on fertility. Dr. Pai, himself, had 13 children, but those children all have small families, and his youngest son, Dr. Ramdas Pai, is responsible for a number of family planning programs which play an important role in the Family Planning Association of India (FPAI). Last year, in a population of almost 150 000 people, the South Kanara Branch of FPAI performed over a thousand sterilizations. They have plans not only to link family planning with the many community organizations that exist in the area, but to institute a series of bold experiments designed to encourage the spread of small families. The milk cooperative vehicles can be used to bring patients to the hospital or to the seven available rural maternity homes for sterilization and early abortion. The reversible methods of contraception can be distributed through members of the cooperatives, teachers and bank workers. In this way, the people with prestige and confidence within the community will be used to promote acceptable, cost-effective family planning services.

One imaginative way now being discussed, of linking family planning with life-long security and fulfillment has been nicknamed the *irresistible bond*. A bond valued at US \$2 000, which matures after 30 years, will be offered to all employed men. The employer will make a monthly contribution of \$1.25, which at commercial rates of compound interest, will develop into this very significant sum of money (annual per capita income in India is US \$130). The bond will be payable after 30 years only to those couples who have limited their family to two children.

## THAILAND

Mechai Viravaidya is an economist and the son of a doctor. He runs a young, but highly successful program that began from a very different starting point than the one in Karnataka, but which is developing in the same direction.



*Mr. Mechai Viravaidya*

In 1974, the IPPF began to fund a program of community-based family planning services. By the end of 1976, the program had been extended to cover a population of 5 million people and had accumulated 132 000 pill users. The continuation rate is 70 percent at one year, and the average cost per acceptor is \$1.70. In addition, it had entered into condom distribution and had referred 4 500 people for sterilization. The program depends on the 10 000 village and community volunteer distributors it has trained who are supported by a small team of 120 full-time staff. Oral contraceptives are sold for the equivalent of US 25 cents per cycle. The distributors keep 5 cents to compensate them for their efforts.

In 1976, the income from contraceptives, together with local fund raising (mainly the sale of items which promote family planning, such as slogan T-shirts), accounted for 56 percent of the total budget. By the end of 1977, given a free supply of contraceptives, the longest established areas will be self-sufficient.

The program has been integrated with the family planning program of the Royal Thai Government, and medical support is provided by 60 government physicians. The experiment, funded by a nongovernment agency, has already become a successful service program and has been extended to other parts of the country where funding is being sought through government agencies.

But socioeconomic change cannot be brought about by contraceptives alone. The network of village distributors is now being used as the basis of a fertility-related development process. Already their status has been enhanced by the addition of a parasite control program funded by the Japanese Organization for International Cooperation in Family Planning. This brings rapid, visible, and welcome health benefits. The addition of parasite control has raised the number of contraceptive acceptors by 25 percent in pilot areas. Having checked the parasitic theft of nutrition, the program plans to move on into agricultural development by using contraceptive distributors to establish better markets for cash crops and as the nucleus for rural credit systems.

The final goal of family planning is healthy children in prosperous families, and the unique aspect of the Thai program is the way in which it involves children. One hundred and seventy thousand Buddhist and Muslim primary school children have been taught a family planning song, and children of 6–8 years of age proudly, and without embarrassment to themselves or their parents, report whether their mummies and daddies use contraceptives. The teachers and the family planning distributors are trying to raise the age at marriage. They suggest that ideally men should marry at 30 – “a mango tastes better when ripe.”



*Dr. D. J. Reddy*

## INDIA (ANDHRA PRADESH)

The participants at this meeting were involved in a full range of programs from the long established ones to those being currently designed. The Sree Mullapudi Venkata Ramanamma project is in the process of being implemented and is perhaps the first of its kind in India to be financed and administered by a trust founded by private enterprise. It aims to bring medical facilities and family planning services within the reach of over 11 million poor peasants living in the East and West Godavri districts of Andhra Pradesh, where there is a high incidence of major diseases.

Comprehensive community rural health centers will initially be set up to cover a population of approximately 200 000 and will provide contraceptives in addition to primary health care. Mobile medical units will visit each village once or twice a week, and as part of their duties, will impart family planning education and services. A 450-bed, modern hospital is presently under construction at Tanaku and will serve as a back-up to the rural health centers by providing adequate diagnostic and therapeutic facilities for the referred patients. The hospital staff would also help to publicize and popularize fertility control programs, using talks, mass media, and posters to impress on the people the need to adopt small family norms.

The director of this innovative project is Dr. D. J. Reddy, who has pioneered the extension of health and family planning services to the poor, underdeveloped regions. Prior to accepting this current assignment, he was the vice-chancellor of the Sri Venkateswara University in Tirupati, which is a rural area. One of his notable achievements was founding the Population Studies Center in 1973. The objectives of the Center are to initiate and conduct comprehensive programs of education, training, extension, and research in population problems. The University hospital provides the family planning services and acts as a strong back-up to the Population Studies Center.



*Prof. O. A. Ojo*

## NIGERIA

The first family planning clinic in Nigeria was established by Dr. O.A. Ojo in July 1965, utilizing a grant of US \$2 000 donated by the Population Council. Initially, recruitment of clientele was difficult due to both political and religious constraints. In spite of considerable opposition, Dr. Ojo persisted in his endeavor. The clinic gradually gained in popularity and now serves a population of approximately one million. At least 2 500 new clients are enrolled in the clinic and about 8 000 acceptors are followed up every year. The clinic provides services for all contraceptive methods, includ-

ing outpatient culdoscopy tubal ligation and menstrual regulation, and also offers routine cytological screening, as well as investigation and treatment of infertility.

A training program for medical and paramedical personnel in family planning was established in 1973. It has been very successful; to date, 13 doctors, 98 nurses/midwives, and 44 social workers from all over Nigeria have been trained. Since there is an acute shortage of doctors, the paramedical workers play a key role in providing family planning services. They are responsible for prescribing and distributing oral contraceptives, administering injectable contraceptives, and inserting IUDs. Procedures like sterilization and menstrual regulation are performed by doctors, who also supervise and guide the paramedical staff.

The major constraints that Dr. Ojo faces are essentially political. Fifty percent of the population are Muslim, and 30 percent are Catholic. Not all the husbands are cooperative, and the clinic relies heavily on methods which can be used without the husband's knowledge. The population is scattered over a large area, and getting services to the client is difficult. The medical profession in the country is not aware of contraceptive technology, and this imposes a considerable hindrance to extending the family planning program.

All services at the Family Planning Clinic are entirely free. The annual expenditure for running this program (excluding the salaries of doctors and the cost of the contraceptives) is US \$33 000. Although this is essentially a hospital-based postpartum family planning program, efforts are now being made to extend the services to the rural areas. This has been made possible by a UNFPA grant.

#### INDIA (HOWRAH)

The Community-Based Contraceptive Distribution Project recently initiated in Howrah District is a unique example of a self-sufficient program. The Project is monitored by



*Dr. Pouri Bhiwandiwala*

Dr. Pouri Bhiwandiwala and aims to distribute oral contraceptives as widely as possible among the 390 000 eligible couples in this region. Howrah is an extremely poor district in West Bengal with a population of 2.6 million. It consists essentially of rural areas but includes what may well be the world's poorest slum on the outskirts of Calcutta. The ultimate objective is to set up depot supply stations (total 260), in a space provided by the community, for every 10 000 population. So far, five such depots have been established (as a pilot project), and among these one is located in the local library and another in an adjoining section of a mosque.

The local depot holder (preferably a lady) is selected and given training in family planning education, the use of oral contraceptives, interviewing techniques and depot management. She visits, motivates and registers all the eligible couples in her area. This poses no problem since she already knows most of them. The depot is kept open for a fixed period of time every day (generally for 2-3 hours), and the women are requested to come at this time for their supply of pills. The depot holder dispenses the pills for a small charge of US 3 cents per cycle, and also maintains a simple recordkeeping system. She not

only continues to visit and motivate new acceptors, but by means of a tickler system, she also monitors the women who are already in the program. If a woman fails to show up for three days after the scheduled visit for resupply, the depot holder visits her and investigates the cause for the delay.

Apart from being an efficient fertility control program, extremely valuable data on socioeconomic characteristics and contraceptive practices and their effectiveness can be obtained by analysing the records maintained by the depot holder. The oral contraceptives have been donated by an international agency, and no other grants are involved. The total expenditure incurred so far is only US \$15\* used for the purchase of nylon ziplock bags in which the pills are supplied to protect them from adverse weather. The remarkable feature of this program is that given the commodities (contraceptive supplies), it is totally self-sufficient at the community level. The villagers can afford the nominal charge, and having paid for the pills, they are more likely to use them. The depot holder is not given any salary, but she keeps the payment of US 3 cents per pill cycle. Although this amount appears insignificant, it adds up to an attractive figure if the depot holder is able to enroll a large number of women in the program. This appears to be the most effective incentive, because the income of the depot holder is then directly proportional to her efforts. The pilot project is proving such a success that efforts are now being made to expand the program to cover the entire Howrah district.

## MEXICO

Just before the IFRP meeting, the Mexican participant, Mrs. Guadalupe de la Vega, had her passport and wallet stolen. Later the same day, the thief, a desperately poor woman, came in tears and returned it. "I did not know it was the wallet of the lady who gave us our family planning clinic." The clinic is only four months old, but the human response to the service has been heartwarming. Marina was the first woman to have sterilization. She had 13 children of which 2 had died, and she was so grateful that, even though she was unable to make a cash contribution, she now gives of her time to clean the building. Another early case was a 37-year-old mother of 19 children.



*Mrs. Guadalupe de la Vega*

Until 4 years ago, Mrs. Guadalupe de la Vega was largely untouched by the family planning movement and totally inexperienced in setting up a service to help the poor. Then she began a family planning educational program and became overwhelmed by the demand

\* This is not a misprint.

for services and the problem of over-fertility among the very poor. A limited range of services was organized from the general hospital, but a separate clinic was established in October, 1976. With the help of a gynecologist who gives his services free, a part-time general practitioner, a urologist and 27 lay volunteers, the first comprehensive family planning service was established in Juarez. Couples have access to pills, condoms, IUDs and male and female sterilization. Already 700 families have come forward, and more than a quarter of them come from rural areas. Ten percent of the women had their first child before they were 15, and over half were mothers by the time they were 18. Ninety percent of the women who use the new services had no more than five years of formal education and only six percent had been to high school.

The service, especially the sterilization component, was discussed and promoted on television, and although it has aroused comment from the Church leadership, this opposition has not resulted in any backlash harming the program.

The main bottlenecks are twofold. The first is financial. The clinic is funded through the sale of old clothes smuggled from the USA, and thus far it has proved difficult to channel resources to so bold and colorful a project through established family planning organizations. The second is the legal limitation on performing early abortion. Illegal abortions exist in the area and take a tragic toll on health and life.

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Additional copies available on request free of charge*

**Editor:** *Linda W. Lewis*  
**Layout and Design:** *Mary Faith Flinn and Terry Cheek*

**March 1977**



**D**

Appendix D

REPORT OF THE PROSTAGLANDIN PROJECT

Department of Obstetrics and Gynecology  
University of North Carolina  
Chapel Hill, North Carolina

IFRP Six Month Report

July 1976 - December, 1976

From July 1, 1976 to December 31, 1976 studies were conducted involving 1) the evaluation of a 0.25%, 0.5%, and 1.0% silastic vaginal device containing 15(S) 15 Methyl Prostaglandin  $F_{2\alpha}$ , 2) the collection of biologic specimens for prostaglandin radioimmunoassay, 3) leukocytosis in  $PGF_{2\alpha}$ -induced midtrimester abortions as compared to hypertonic saline-induced midtrimester abortions, 4) the intramuscular administration of 15(S) 15 methy.  $PGF_{2\alpha}$  in cases of failed abortion by other conventional methods and as the primary abortifacient, 5) the efficacy of  $PGE_2$  vaginal suppositories in documented cases of fetal death in utero.

I. Patients were admitted to a protocol involving the administration of a silastic vaginal device containing 15(S) 15 Methyl Prostaglandin  $F_{2\alpha}$ . The induction to abortion times for the 0.25%, 0.5% and 1% concentration of the silastic vaginal devices were satisfactory. The majority of the subjects experienced side effects of which the most frequently occurring were vomiting, diarrhea and uterine cramps. Pretreatment of the subjects with Compazine and Lomotil was prescribed in half of the subjects. Compazine did not significantly attenuate vomiting, while Lomotil was effective in reducing the incidence of diarrhea. The preliminary studies indicated that 1) the silastic vaginal device appears to be an efficacious method of pregnancy termination, 2) the high incidence of side effects and their attenuation warrant further investigation and 3) increased rates of incomplete abortions require larger numbers of subjects to validate this finding.

II. The collection of biologic specimens for prostaglandin radioimmunoassay protocol involves obtaining samples of amniotic fluid, peripheral plasma and vena cava plasma. Specimens have been obtained from patients undergoing artificial abortion by intraamniotic hypertonic saline and  $\text{PGF}_{2\alpha}$ . The radioimmunoassay test for the detection of  $\text{PGF}_{2\alpha}$  and 15 Methyl  $\text{PGF}_{2\alpha}$  levels is in the process of being standardized with continued progress toward analysis of the available samples. The laboratory facilities have moved to their new location and the hiring of a new laboratory technician will hopefully expedite the standardization of the assay and the analysis of the data.

III. The study involving leukocytosis in  $\text{PGF}_{2\alpha}$  induced midtrimester abortions as compared to saline-induced abortions is near completion. White blood cell counts, differential, platelet counts, and hematocrits are being determined from the numerous samples obtained from each subject. No preliminary analysis is available now.

IV. The intramuscular administration of 15(S) 15 Methyl Prostaglandin  $\text{F}_{2\alpha}$  in cases of failed abortion by conventional midtrimester methods appears to be promising and warrants continued evaluation. Induction to abortion time is satisfactory. Side effects including vomiting, diarrhea, and uterine pain occur with a surprisingly low incidence. In most cases curettage has been performed. It appears that in most cases the abortion was complete. Obviously the criteria for admission of subjects to this protocol has limited the number studied. However, larger studies of this method appear warranted in view of the efficacy demonstrated in this pilot study.

The studies involving the use of intramuscular 15(S) 15 Methyl  $\text{PGF}_{2\alpha}$  as the primary method of inducing abortion has been completed.

2  
4

The results of these studies have been published and are listed in the enclosed publications list.

V. The administration of PGE<sub>2</sub> vaginal suppositories in documented cases of death in utero is very satisfactory and a real breakthrough in Prostaglandin research. The induction of labor with PGE<sub>2</sub> in these complicated cases has proved to be quite efficacious. The mean induction to delivery time was 7.6 hours. Gastrointestinal side effects occurred but were within clinically acceptable limits. The relatively short induction to delivery time has definite advantages over present methods of oxytocin induction or waiting for nature to take its course. It definitely appears that a continuation of this study with increased number of subjects is essential.

During this time period, there were no visiting fellows. With approval of future studies, the continuation of observations by visiting fellows would be encouraged.

Monitoring of uterine contractility has been limited during the past six months due to a non-functional recorder. It appears that this problem will soon be remedied upon arrival of the part from Germany.

Ongoing studies include the PGE<sub>2</sub> for Death in Utero, Leukocytosis in PGF<sub>2α</sub> and Saline-Induced Midtrimester Abortions, 15(S) 15 Methyl PGE<sub>2</sub> Intramuscular Administration in Failed Abortions and presentations and publications of the completed silastic vaginal device protocols. In addition, approval from the Clinical Research Committee has been received to initiate studies involving 15(S) 15 Methyl PGF<sub>2α</sub> methyl ester in a vaginal suppository. The implementation of the protocol is now pending Upjohn's IND approval.

5/6/77  
ate

William E. Brenner, M.D.  
William E. Brenner, M. D.

James R. Dingfelder, M. D.

Dingfelder, J. R.; Black, J.; Brenner, W. E.; Staurovsky, L. G.; and Gruber, W. "Intraamniotic Administration of 15(S) 15 Methyl  $\text{PGF}_2\alpha$  for Induction of Midtrimester Abortion." Am. J. Obstet. Gynecol. 125: 821-826, 1976.

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**E**

**Appendix E**

**FINANCIAL STATEMENTS**

International Fertility Research Program

AID/csd-2979 Expenditure Report  
For the Six Months Ending March 31, 1977

	Expenditures	Encumbrances	Total
Salaries and wages	\$ 498,564	\$	\$ 498,564
Fringe benefits	97,653		97,653
	<hr/>		<hr/>
	\$ 596,217		\$ 596,217
Overhead	417,698		417,698
Consultants	18,683		18,683
Trainee travel	8,630		8,630
Domestic travel	20,371		20,371
Foreign travel	101,692		101,692
Equipment	38,260	17,181	55,441
Supplies	10,164	3,807	13,971
Data processing	102,433		102,433
Equipment rental	17,633	15,623	33,256
Telephone long-distance	23,413		23,413
Other direct expenditures	26,203	6,153	32,356
Data purchases & subcontracts	141,520	150,784	292,304
Printing and binding	25,692	7,316	33,008
FIGO Journal support	14,596	17,168	31,764
New drugs and devices	11,552	19,579	31,131
	<hr/>	<hr/>	<hr/>
Subtotal	\$ 1,574,757	\$ 237,611	\$1,812,368
Fixed fee	13,876	22,102	35,978
	<hr/>	<hr/>	<hr/>
Total	\$ 1,588,633	\$ 259,713	\$1,848,346
	<hr/>	<hr/>	<hr/>

FIRST SIX MONTHS SALARIES

FY 1977 Oct. 1976 - March 1977

AID/csd-2979

Hire Date	Employee	Position	Total Salaries	Person Months
	M. Adkins	Service Agreements Clerk	\$ 4,638.94	6.00
	R. Bernard	Field Epidemiologist	19,800.00	6.00
	T. Hardy	Ass't to the Studies Mgr.	4,850.79	6.00
	P. Morrow	Head, Admin. Services Div.	8,635.56	6.00
	L. Marco	Graphics Assistant I	4,631.60	6.00
	D. Flexner	Ass't for Field Development	5,446.07	3.00
	E. Kendall	Administrative/Research Ass't	7,713.60	6.00
2/10/77	L. Connell	Section Secretary	1,061.21	1.62
	Chi, I-cheng	Epidemiologist	15,731.52	6.00
	G. Cummings	Statistical Assistant	4,282.98	6.00
	L. Cole	Research Assistant	6,958.56	6.00
11/2/76	D. Ellis	Section Secretary	3,081.43	5.03
	J. Fortney	Research Associate	9,898.32	6.00
	J. Gray	Section Secretary	794.58	1.20
12/31/76	M. A. Gough	Administrative Assistant	2,445.12	3.69
	S. James	Statistical Assistant	4,173.45	5.93
	J. Jones	Statistical Assistant	4,076.46	6.00
	A. Kay	Research Assistant	6,057.96	6.00
	M. McCann	Research Assistant	6,644.04	6.00
	E. Miller	Research Assistant	3,462.57	3.00
	M. Mitra	Research Assistant	6,057.96	6.00
	S. Page	Research Assistant	5,790.72	6.00
11/18/76	K. Stewart	Research Assistant	5,553.13	4.48
	M. Thomas	Research Associate	9,426.88	6.00
	E. Tomaro	Translator	6,078.30	6.00
	P. Talwar	Research Associate	11,408.04	6.00
	R. Taylor	Research Analyst	7,574.58	6.00
	J. Wood	Research Assistant	7,632.00	6.00
	S. Young	Statistical Assistant	1,995.79	3.00
	M. J. Levinski	Nurse Interviewer	6,958.56	6.00
	R. Anderson	Head, Field Studies	16,318.31	3.97
	P. Bhiwandiwalla	Area Coordinator - India	12,270.96	6.00
	F. Cameron	Ass't to Data Collection Coord.	4,543.59	6.00
	C. Colven	Ass't Area Coord. for L. America		
	J. Fisher	Section Secretary	4,820.40	5.08
	A. Green	Section Secretary	1,988.17	3.00
	J. Hawkins	Section Secretary	4,199.67	6.00
	H. Jensen	Field Studies Coord.	413.12	.51
	M. Jones	Section Secretary	8,836.80	6.00
	K. Omran	Area Coordinator - Mid. East & Sudan	3,916.52	6.00
			12,680.00	6.00

FIRST SIX MONTHS SALARIES  
 FY 1977 Oct. 1976 - March 1977  
 AID/csd-2979

Hire Date	Employee	Position	Total Salaries	Person Months
10/6/76	R. Reynolds	Section Secretary	\$ 2,522.36	5.91
	A. Saha	Area Coordinator - Asia	12,270.96	6.00
	B. Taylor	Data Collection Coordinator	6,594.04	6.00
	J. Vakilzadeh	Area Coordinator - Iran,USA	12,577.56	6.00
1/24/77	J. Propst	Section Secretary	125.86	.23
2/7/77	P. Winikoff	Section Secretary	1,172.17	1.80
	L. Alston	Data Processing Coordinator	4,701.23	6.00
	D. Burnett	Section Secretary	4,077.23	6.00
	R. Davis	D. P. Team Leader	3,969.01	6.00
	S. Gilbert	Programmer	7,632.00	6.00
	S. Gardner	D. P. Team Leader	4,171.90	6.00
	F. LaPier	Data Entry Manager	5,247.23	6.00
	R. Lloyd	D. P. Team Leader	3,936.77	6.00
	C. Lee	Data Processor	4,151.65	6.00
	B. Nails	Data Processor	4,188.85	6.00
	J. Pittman	Programmer	6,107.74	6.00
	C. Roraff	Programmer	6,344.04	6.00
	J. Smith	Programmer	6,644.04	6.00
	D. Terwey	Head - Data Processing	11,070.78	6.00
	K. Tolley	Operations Supervisor	2,927.92	3.00
12/1/76	M. Tolbert	Programmer	4,229.36	4.06
	K. Ulberg	Lead Programmer	8,371.56	6.00
1/5/77	J. Harbin	Data Processor	1,953.31	2.86
2/21/77	D. Bolding	Data Processor	819.34	1.34
	E. Adcock	Graphics Assistant II	5,687.77	6.00
	W. Barrows	Information Coordinator	6,025.02	6.00
	T. Cheek	MT/ST Operator	4,091.84	6.00
	M. Flinn	Printing & Graphics Coord.	6,094.99	6.00
	L. Lewis	Editor	7,013.38	6.00
10/18/76	N. Mincey	Assistant	1,508.12	2.77
12/1/76	R. McDowell	Assistant Editor	3,356.08	4.06
12/20/76	I. Rosenfeld	Assistant Editor	2,728.38	3.23
	J. Stanton	Assistant Editor	3,665.35	3.23
2/7/77	G. Peters	Section Secretary	653.68	1.02
3/8/77	A. McAdams	Graphics Assistant I	507.95	.83
	G. Stathes	Assoc. Dir.-Field Development	13,787.20	5.40
	D. Edelman	Head, Design & Analysis	13,318.68	5.40
	J. Eikington	Research Physiologist	1,023.04	.74
	A. Goldsmith	Area Coordinator - L. America	17,010.00	5.40
2/14/77	L. Hooker	Data Processor	28.30	.05

FIRST SIX MONTHS SALARIES

FY 1977 Oct. 1976 - March 1977

AID/csd-2979

hire date	Employee	Position	Total Salaries	Person Months
	P. Harkins	Assoc. Dir. - Tech. Services	\$ 15,846.24	6.00
	P. Friel	IUD Program Assistant	1,189.90	.90
	L. Laufe	Dir. of Research & Training	9,901.22	3.00
	R. Wheeler	Staff Engineer	3,362.64	1.20
	R. Krueger	Part time Assistant	68.75	.16
	B. Thomas	Part time Assistant	342.00	.50
	J. Wright	File Clerk	264.00	.46
	M. Sanford	Part time Assistant	226.58	.34
	E. Terwey	Part time Assistant	1,377.80	1.97
			<u>\$ 507,734.08</u>	<u>403.37</u>
	Less: Transfers to Non-AID Program		(9,170.16)	(3.53)
	<b>TOTAL</b>		<u>\$498,563.92</u>	<u>399.84</u>

Consultancy Payments  
 AID/csd-2979  
 10/1/76-3/31/77

Name	Description	Total
James Allen, Jr.	1.063 days, November, 1976, Participating in the Protection of Human Subjects Committee Meeting.  Total: 1.063 days @ \$135/day	\$143.51
Lidija Andolsek	3.75 days, 1976, Work performed concerning the IFRP projects on the caliper and TR-10.  Total: 3.75 days @ \$75/day	\$281.25
William E. Brenner	2.42 days, June, 1976, Rewriting the manuscript "A Comparison of D&C and Vacuum Aspiration for Performing First Trimester Abortion." 3.313 days, July & August, 1976, Reviewing the manuscript "Minilaparotomy for Female Sterilization - A Feasibility Study of a New Technique," reviewing "Examination of the LH-RH Effect in Pregnancy", Reviewing Management of Second Trimester Abortion Form, reviewing consent forms and reviewing, correcting, and rewriting "A Comparative Study of Electrocoagulation and Tubal Rings for Tubal Occlusion at Laparoscopy." 13 days, March, April and May, 1976, Participating in studies, meetings, and lectures and reviewing protocol, forms, and standard tables for the vaginal administration of 15(S) Me PGF <sub>2α</sub> protocol and the Maternity Record. 4.75 days, September, 1976, Reviewing and Correcting "Female Sterilization Using the Tubal Ring," reviewing and rewriting "Immediate Postpartum Insertion of Lippes Loop D with Silastic Projections". 1.25 days, October, 1976, Reviewing and rewriting "The Safety and Efficacy of Transcervical Instillation of Quinacrine for Female Sterilization". 1.688 days, November, 1976, Participating in the Protection of Human Subjects Committee Meeting. 5.375 days, December, 1976, Reviewing the Hospital Abortion Records, Complication Codes, and the notes for Protection of Human Subjects Committee (11/4/76) and rewriting the "Contraceptive Practice After Women have Undergone 'Spontaneous' Abortion in Djakarta and Khartoum".	

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Barbara James	1.438 days, November, 1976, Participating in the Protection of Human Subjects Committee Meeting.	
	Total: 1.438 days @ \$85/day	\$ 122.23
Jorgen Jenk	24 days, January and February, 1976, Time spent in Bangladesh and report on the mission to Bangladesh.	
	Total: 24 days @ \$100/day	\$2,400.00
Louis Keith	.5 days, January, 1977, Reviewing the instruction manual for the Abortion Clinic Data Service. 2.25 days, February, 1977, Reviewing materials regarding the use of progesterone to induce withdrawal bleeding and reviewing the study protocol for Topical Anesthesia Sterilization.	
	Total: 2.75 days @ \$100/day	\$ 275.00
Vernon Madrigal	.735 days, November, 1976, Report on Laufe minilap retractor.	
	Total: .735 days @ \$68/day	\$ 50.00
Fred Reid, Jr.	1.25 days, November, 1976, Participating in the Protection of Human Subjects Committee Meeting.	
	Total: 1.25 days @ \$67/day	\$ 83.75
German Riaño Gamboa	7 days, August and September, 1976, Translating Maternity Record manual, reviewing the Maternity Record form for FIGO meeting, final correction of threatened, inevitable, and incomplete abortion forms and discussion of the special studies (M.R.F.) with the M.C.H. Chief (Health Ministry). 5 days, October, 1976, Translating Center Specific Questionnaire, elaborating on and correcting the Maternity Record project, and elaborating on and correcting 1977 projects (1) Vacuum vs. D.C., 2) Graviard IUD Evaluations and 3) Tubal Ring vs. Laparoscopy). 11 days, November and December, 1976, Discussing and elaborating on the Maternity Record project meeting, sampling design, selection and discussion of the 1977 budgets for pool projects based on study proposal sheets, distributing the Maternity project proposal and Center Specific Questionnaire among the 52 hospitals involved in the project, distributing the Ministry of Health letter of intention among the same 52 hospitals, designing the April conference information sheet and information poster and translating the Maternity Record Manual.	

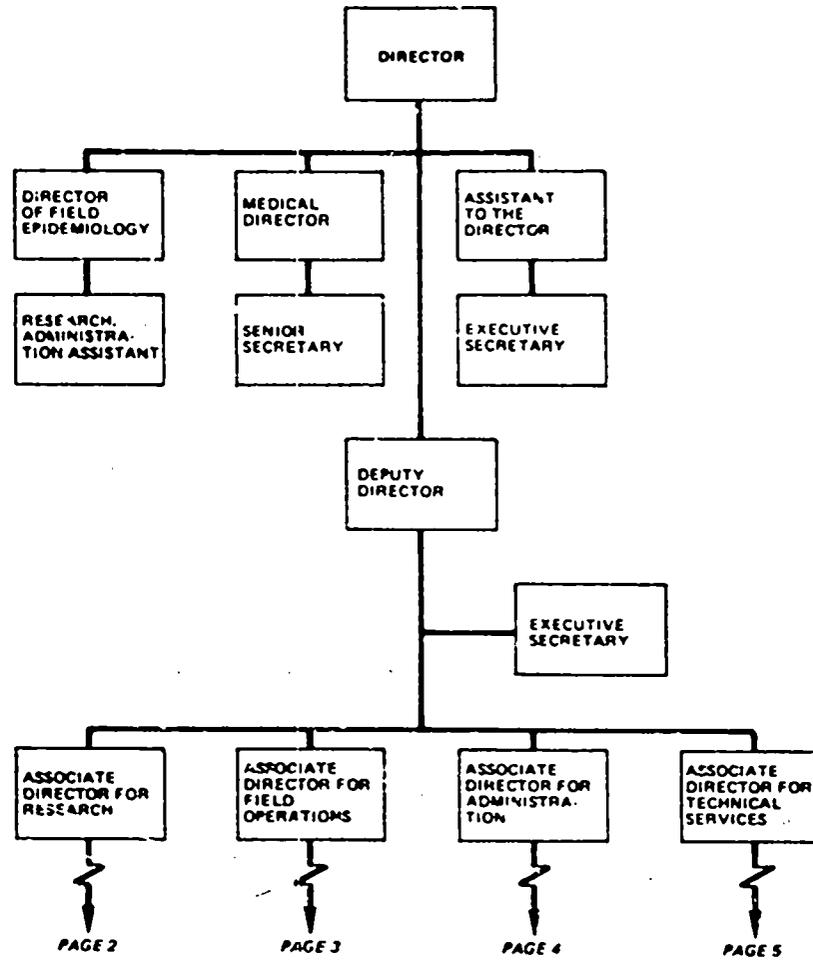
	5.33 days, January, 1977, Programming the Maternity Record project meeting, telephone calls and local visits to coordinate the meeting. Designing PRIF local and international information final sheet.	
	5.33 days, February, 1977, Coordinating the April course on "Advances in Gynecology and Obstetrics," visiting hospitals in Villavicencio and Medellin to coordinate the Maternity Record meeting and future PRIF research, revising PRIF information leaflet and collecting Center Specific Questionnaires.	
	Total: 33.66 days @ \$75/day	\$2,525.00
Linda Staurovsky	1.313 days, November, 1976, Participating in the Protection of Human Subjects Committee Meeting.	
	Total: 1.313 days @ \$72/day	\$ 94.54
Alan E. Treloar	2 days, August, 1976, Time spent with Dr. Gary Berger and Bob Taylor in Minneapolis to assist in adapting data on tubal ligation for IFRP.	
	1 day, January, 1977, Discussion with Dr. Kessel concerning Menstruation and Reproduction History Research Program, presentation of in-service program to the IFRP staff and time spent with Bob Taylor and Dr. Gary Berger preparing a publication based on data set.	
	Total: 3 days @ \$135/day	\$ 405.00
Judith Tyson	21 days, September, 1976, Bangladesh Minilap Tubal Ring Orientation.	
	Total: 21 days @ \$92/day	\$1,932.00
Ng Khye Weng	.5 days, August, 1976, Consultation on clinical criteria for diagnosing cerebral ischemia and thrombosis.	
	Total: .5 days @ \$125/day	\$ 62.50
Jaime Zipper	17.5 days, 7/1/76-2/28/77, First and final drafts of an overview paper on IUDs for the IX World Congress on Fertility and Sterility and animal studies on chemical sterilization with pelletized quinacrine.	
	Total: 17.5 days @ \$100/day	\$1,750.00
	Total P/E 3/31/77	\$18,682.87



**Appendix F**

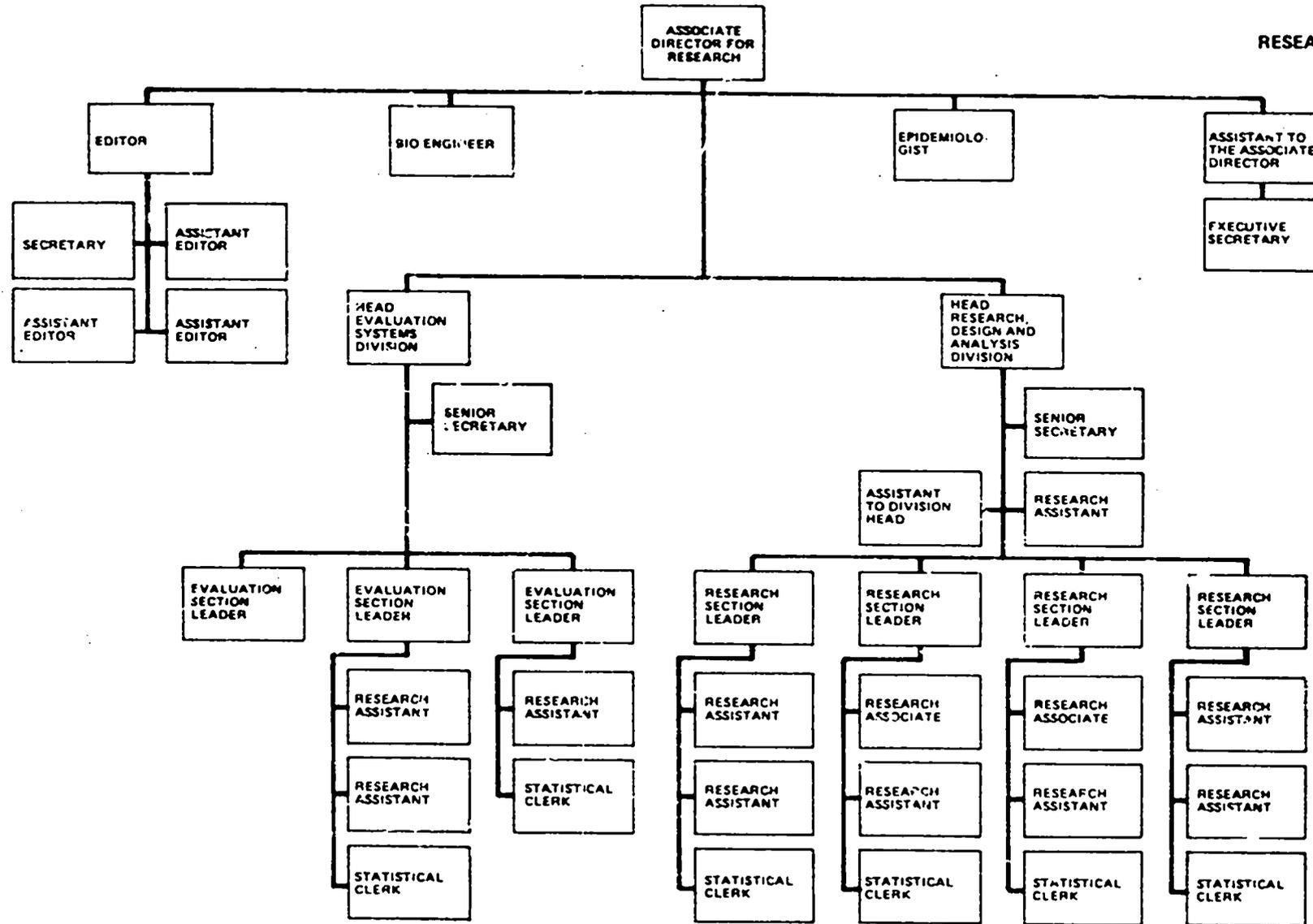
**PROPOSED ORGANIZATIONAL CHART**

INTERNATIONAL FERTILITY RESEARCH PROGRAM  
OFFICE OF THE DIRECTOR



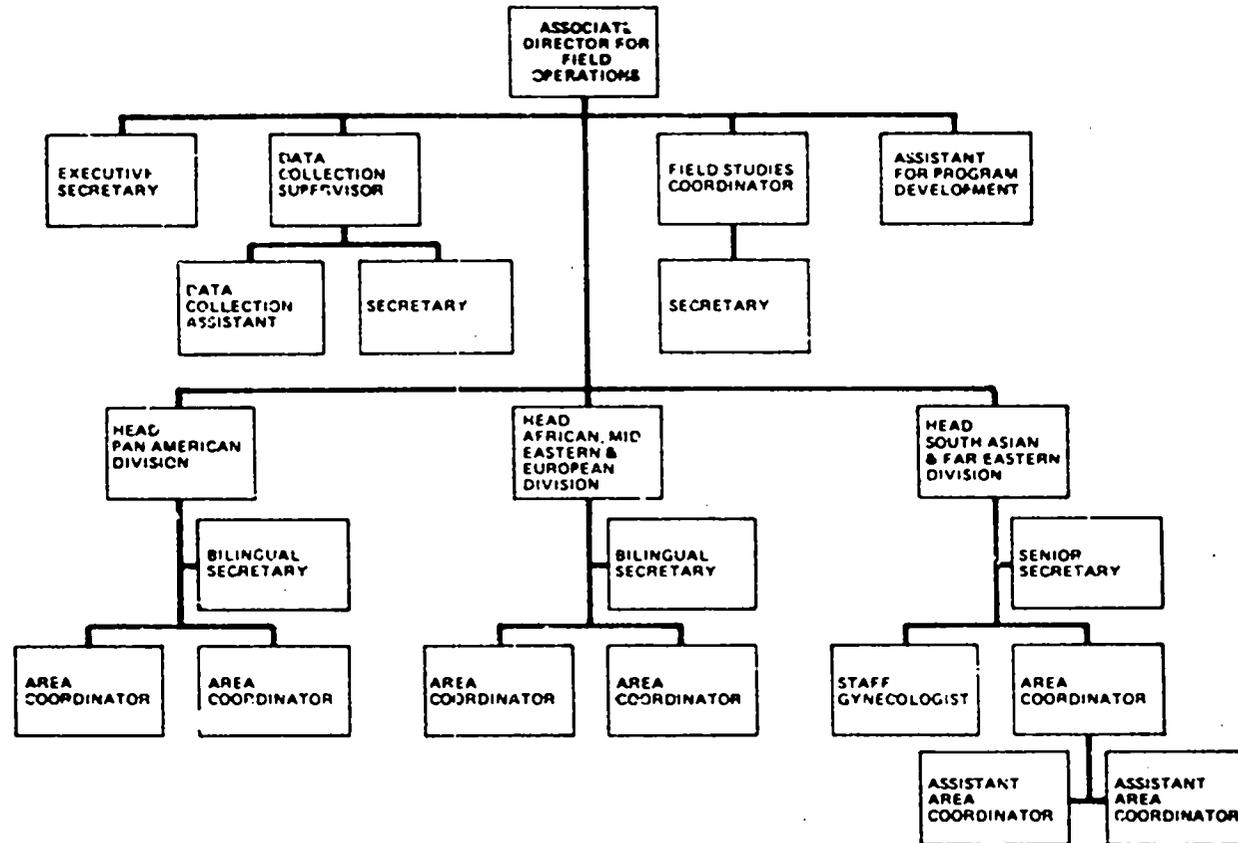
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RESEARCH DEPARTMENT



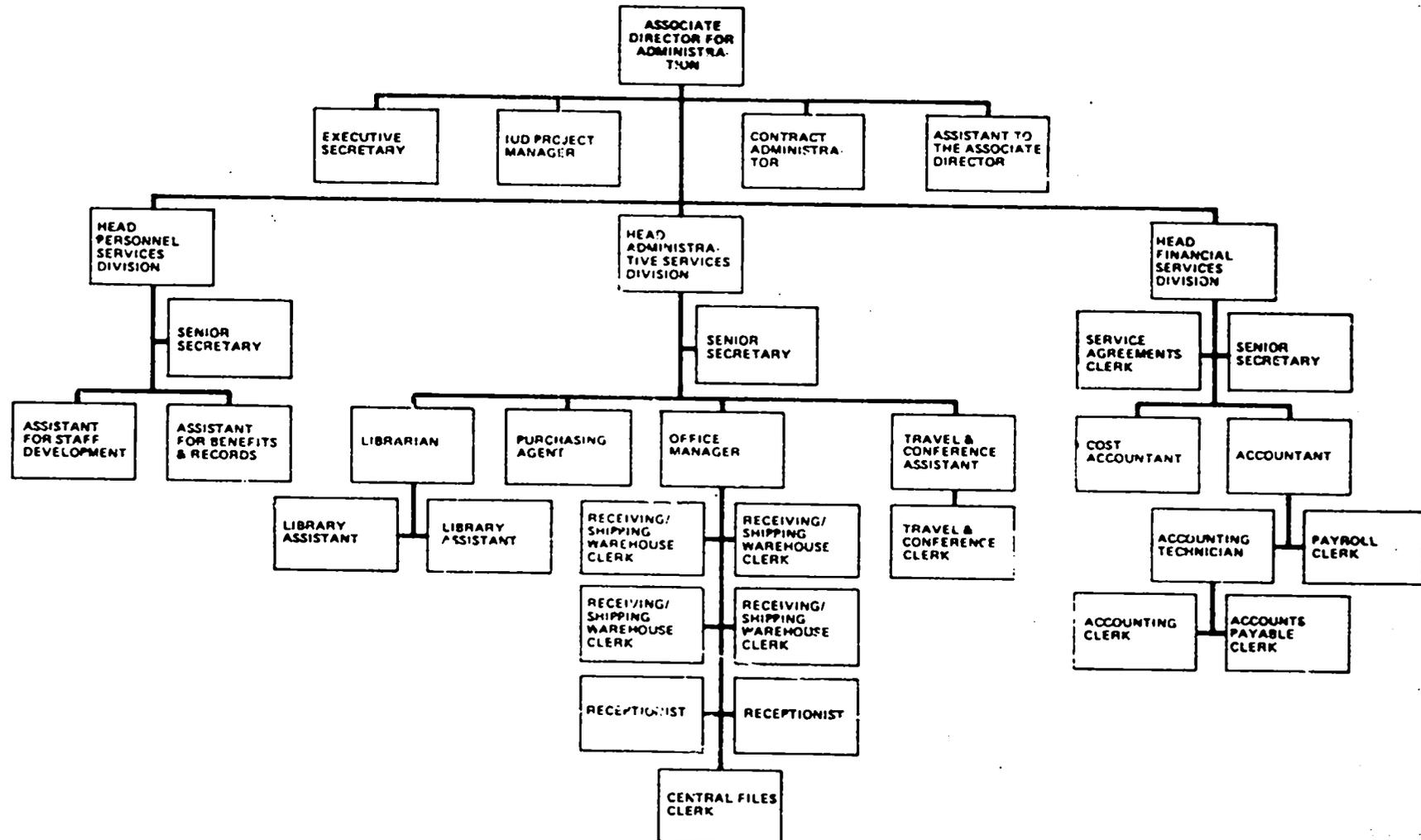
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FIELD OPERATIONS DEPARTMENT

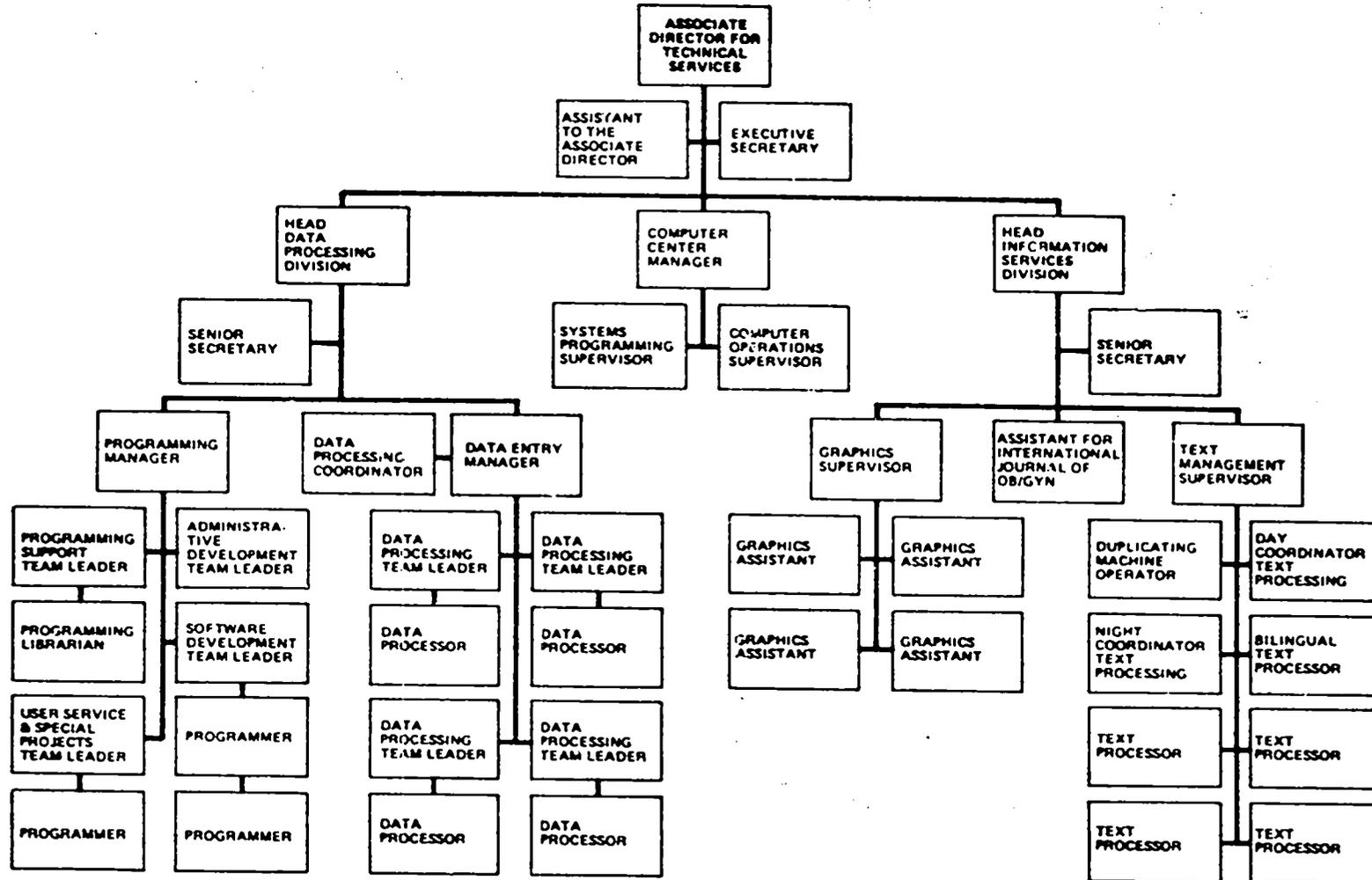


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ADMINISTRATION DEPARTMENT



TECHNICAL SERVICES DEPARTMENT



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