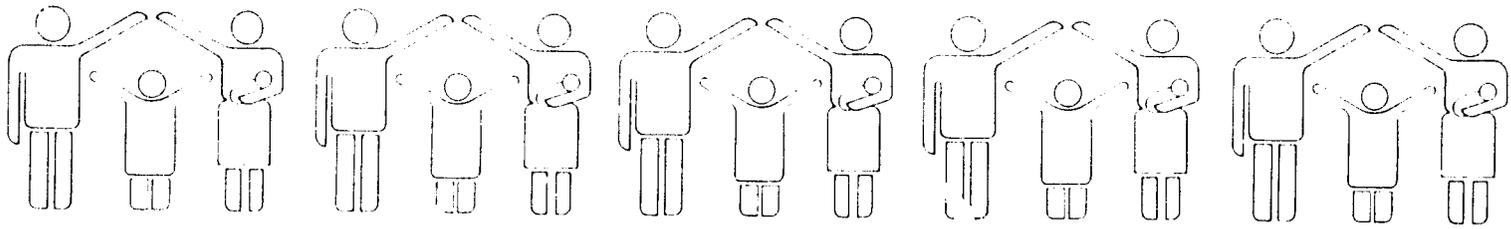


**INSTITUTE FOR REPRODUCTIVE HEALTH**

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• Natural Family Planning

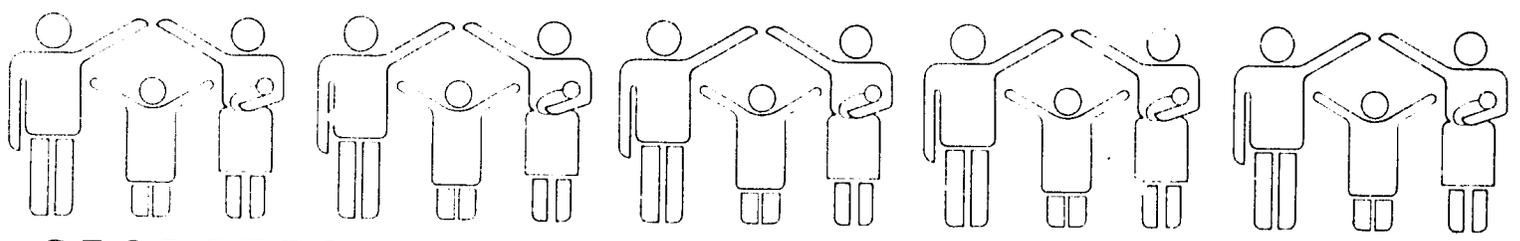
• Breastfeeding

• Reproductive Health Research

**TECHNICAL PROGRESS REPORT**

**Cooperative Agreement DPE-3061-A-00-1029-00**

**January 1 - June 30, 1992**



**PROGRESS REPORT  
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## I. INTRODUCTION AND EXECUTIVE SUMMARY

This report describes the activities and accomplishments of the Institute for Reproductive Health under United States Agency for International Development (A.I.D.) Cooperative Agreement DPE-3061-A-00-1029-00 for the period January 1 through June 30, 1992.

During this reporting period, the Institute continued to implement a broad program of work to achieve our goals: to improve fertility awareness and the acceptability, availability, and effectiveness of natural family planning as well as to increase the availability and acceptability of optimal breastfeeding with a focus on its fertility impact. Our approach involves fertility awareness, natural family planning (NFP), breastfeeding (BF), and Lactational Amenorrhea Method (LAM) program development worldwide, as well as country-specific and subject-specific efforts through strategies encompassing research, education and training, policy, and service delivery.

Because of the different approaches needed to support and develop NFP and fertility awareness programs and to support programs and policy development on the fertility aspects of breastfeeding, the Institute consists of two separate but collaborative divisions: Natural Family Planning and Breastfeeding. The work of the two divisions is presented separately in this report, with cross-referencing as appropriate.

### A. NATURAL FAMILY PLANNING DIVISION

The strategy and activities of the NFP Division are designed to make NFP a genuine, viable choice for many couples. We emphasize making NFP more "user friendly": overcoming policy, provider, and user obstacles to NFP. We also provide accurate and appropriate fertility awareness education to increase informed choice and improve method use.

The NFP Division's focus during this reporting period was to plan and initiate activities to achieve the objectives that have been identified as priorities.

Subprojects completed include:

- Intensive Analysis of Peru Periodic Abstinence Data, with a researcher at the College of William and Mary, which provides further information about periodic abstinence use in a setting in which approximately one-third of all women who use family planning state that this is their current method.
- Institute Evaluation Strategy which provided an overall approach for evaluating NFP and fertility awareness projects, and for designing and implementing on a pilot basis a management information system (MIS) for NFP projects.

Subprojects continued include:

- Outcome of Pregnancies in NFP: Fetal Effects which discovered no significant increase in spontaneous abortion rates of women who conceived while using NFP compared to other women (although when analysis was restricted to women with prior history of fetal losses, significantly lower loss rates were noted in conceptions on mucus peak and day -1 compared to preovulatory and postovulatory conception). Data collection and analysis continue regarding fetal abnormalities, and data from this study are being combined with additional data from the Estudios Colaborativos Latino Americanos sobre Malformaciones Congenitales (ECLAMC) to determine sociodemographic characteristics and pregnancy intention of couples experiencing contraceptive failures (in NFP users compared to users of other methods).

- Development of Simplified and Non-Competitive Assays to Measure Steroid Hormones with the Weizmann Institute of Science, to develop new antibodies and configure them into assay technologies which can be utilized in a one-step home test to measure estradiol and progesterone using a colorimetric endpoint.
- IFFLP Technical Assistance Project, which provides financial and technical support to NFP projects through a subagreement with IFFLP. NFP program management, sustainability and service quality will be strengthened in four target countries (tentatively Zambia, Peru, the Philippines, and Brazil). Other special project efforts will also be undertaken including: the conduct of IFFLP Zonal meetings in Africa and Latin America to facilitate information exchange and dissemination; management training; management information systems (MIS); and a pilot lifestyle education program in Zambia.
- Assessment of Demand for NFP and Factors Influencing its Acceptability, with the University of Nairobi, Kenya, which is investigating sociocultural determinants of, demand for, and acceptability of NFP; identifying factors amenable to policy and program intervention; and providing recommendations to health and family planning providers and program managers.

Subprojects begun include:

- a comprehensive evaluation strategy to assess impact and quality of NFP and fertility awareness field-based activities;
- a modular slide set which can be adapted to the needs of multiple users and target audiences;
- a pilot project with the Program for Appropriate Technology in Health (PATH) to communicate simple fertility messages to improve understanding of the fertile and infertile phases of the menstrual cycle among target populations in selected countries;
- a project with the NFP Training Center in Kenya through a new subagreement with the Los Angeles Regional Family Planning Council (LARFPC) to expand NFP services in Ministry of Health clinics.

Publications during this reporting period include Part I of the proceedings from the conference, "Natural Family Planning: Current Knowledge and New Strategies for the 1990s," co-sponsored by the Institute, A.I.D., and WHO, which was published as a special supplement to the American Journal of Obstetrics and Gynecology (AJOG). Part II of the proceedings was published by the Institute and is ready for dissemination. The Spanish version of the "Guide for NFP Trainers" also was disseminated. We continue to respond to requests for numerous documents produced by the Institute, including the "Guide for NFP Trainers" in English and Spanish, and three language versions of "NFP: A Good Option" and "Glossary of NFP Terms."

In addition, technical assistance (TA) was provided to programs in Chile, Brazil, the Dominican Republic, Papua New Guinea, and the Philippines, as well as to Cooperating Agencies (CAs).

During the next reporting period we plan to test and finalize the modular slide set; implement the evaluation strategy with field projects in Bolivia, Guatemala, Brazil, Zambia, and Mauritius; and design the data collection and reporting forms for the MIS, and select countries to begin implementation of the MIS, on a pilot basis. We also will begin development of an NFP Casebook to assist service delivery programs meet the needs of a wider range of clients; further develop our guidelines for including NFP and fertility awareness in a variety of service programs; explore issues of message content in NFP program outreach activities; evaluate hormonal markers as indicators of infertility in perimenopausal women; and develop a report on quality of care in NFP programs with emphasis on counseling to clients.

Because the NFP Division carries out the majority of its work through subcontractors and consultants, careful coordination among all project elements is essential to ensure that all involved are aware of each others purpose, strategies, and activities. To increase coordination and enhance our ability to achieve our objectives, a project review meeting will be held with our subcontractors and consultants during the next reporting period.

## B. BREASTFEEDING

The GU/IRH goal in breastfeeding is to increase the availability and acceptability of optimal breastfeeding with a focus on its fertility impact. The Breastfeeding Division's three objectives are:

1. Continued testing of the Lactational Amenorrhea Method (LAM), which is an introductory method of family planning which serves to enhance acceptance of family planning and supports women in optimal child health practices;
2. Policy changes favoring optimal breastfeeding;
3. Program changes to include the fertility aspects of breastfeeding and the timely introduction of family planning postpartum.

During the reporting period January 1, 1992 - June 30, 1992, the Breastfeeding Division completed extensions for subprojects begun under the first project and that continue into the current cooperative agreement. In addition, the Division developed a workplan to accomplish the objectives for the next fiscal year, and identified and contacted potential new subproject personnel.

The Division continues to grow in both workscope and staffing, with the addition of a Senior Associate for Field Projects. The following projects stand out among the accomplishments during this period but reflect only a small part of the activities during this time.

Under the subject area **LAM: Breastfeeding and Family Planning Interface**, activities consisted predominantly of direct support of the LAM family planning method and LAM/family planning program interface, which includes research, pilot projects, education, and technical assistance for program and policy change for breastfeeding in family planning and child survival programs, as well as timely family planning method introduction by breastfeeding programs.

Projects/subprojects completed or extended included the following:

- **Chile: LAM in a Clinical Setting:** The first phase of the Institute's project in Chile with the Pontificia Universidad Católica demonstrated the efficacy of LAM in the context of breastfeeding support to be higher than 99.5 percent. The method is now being tested among working women. During this reporting period, the results of the first phase of the study in Chile were published in the Lancet.
- **Ecuador: LAM in a Family Planning Setting:** Institute staff and the Centro Médico de Orientación y Planificación Familiar (CEMOPLAF) in Quito continue to test the LAM guidelines in a family planning service delivery system. From prototype clinics, the family planning choices of potential LAM users were documented: in the original four prototype clinics, LAM acceptors comprised an average of 15 percent of all new family planning clients. Average method continuation was 3.5 months and 75 percent of the method users said that they were satisfied with the method. No pregnancies occurred among the 79 percent of women who used the three method parameters to time the introduction of a complementary method. During this reporting period, it was decided that the introduction of LAM services in an additional 14 clinics would include LAM education in the clinics themselves as well as in the community outreach attached to each clinic. Additional personnel were trained for the expansion of services to all 20 CEMOPLAF clinics.

- **Guidelines for Breastfeeding in Family Planning and Child Survival Programs:** Approximately 3,200 English, 2,400 French, and 5,300 Spanish copies of this publication have been distributed worldwide since the document's first printing. During this reporting period, the Guidelines were distributed at four major conferences. In addition, French and English versions of "NFP-friendly" Guidelines were developed and distributed. IRH is proceeding to update the Guidelines with the assistance of a consultant. The revised version will address three audiences (policy maker, health worker, and mother/user), and will include definitions, up-to-date research findings, and guidelines for working women.
- **Guatemala: LAM in LLLI:** In Guatemala, the Institute continued to work with La Leche League International (LLLI), on a "Breastfeeding and Natural Child Spacing Project." The 18-month extension project, which was signed in November 1991, builds on the accomplishments of the original project and will begin to incorporate LAM into LLLI activities regionally. Project staff continued to work on the proceedings of the two-day national conference on breastfeeding and child spacing held during the previous reporting period.
- **Technical Assistance to Cooperating Agencies:** The Breastfeeding Division has continued its organized program of technical assistance that includes presentations and workshops with selected Cooperating Agencies as well as needs assessment and materials for a broader group. The first technical presentation in the newly organized series was given in December 1991 at CEDPA, and has resulted in follow-up contacts to plan a collaborative project. Several presentations are scheduled for early in the next reporting period. In addition, the IRH relationship with the Cooperating Agencies was formalized during this reporting period with a letter from Duff Gillespie to the Cooperating Agencies noting the recent research/activities in LAM, the contributions to the field of IRH and FHI, and the importance of IRH review of all materials developed by Cooperating Agencies and USAID Missions relating to breastfeeding, family planning, and LAM.

Under the subject area **Breastfeeding and Fertility**, the Breastfeeding Division's activities are designed to create support for optimal breastfeeding for its fertility impact on populations. This support includes demographic and biomedical research designed to address controversies and obstacles to optimal breastfeeding. The findings are used in the development of policy, educational materials, and technical assistance. Significant progress included the following:

- **Georgetown University Clinical Studies:** Several studies are underway at Georgetown. The Breastmilk Storage study, which is looking at bacteriology and stability of breastmilk lipids and proteins under conditions of non-refrigeration, has been refunded for work to recommence on July 1, 1992. A protocol was developed for a bone density study in response to breastfeeding and weaning, and work began on the development of a study on colostrum as an anti-infective agent.
- **Helping Mothers to Breastfeed,** which has been translated into seven languages and widely distributed, has been revised to include LAM and references this change in the preface. A follow-on agreement with AMREF is supporting distribution of copies to key persons in Africa with a joint Institute-AMREF cover letter.
- **Breastfeeding: Protecting a Natural Resource:** This booklet has been publicly recognized by UNICEF as a major contribution to worldwide policy change in breastfeeding. Since its publication, approximately 10,000 English, 6,200 French, and 7,700 Spanish copies have been distributed to groups such as A.I.D and A.I.D. Cooperating Agencies, USAID Missions, Schools of Public Health, WHO, UNICEF, UNFPA, JHPIEGO, SIDA, AED, La Leche League International, Wellstart, PAHO, and many others. During this reporting period alone, 300 English, 200 French, and

700 Spanish copies were distributed. The booklet was distributed at four major conferences during the reporting period.

- Videotape: Breastfeeding: Protecting a Natural Resource: Distribution of the video to policy makers around the world continues through a variety of channels including A.I.D., WHO, UNICEF, PAHO, SIDA, and A.I.D. supported agencies such as AED and Wellstart. In addition to the recognition that the video continues to receive from colleagues at both WHO and UNICEF, the video was recognized by the A.I.D. Breastfeeding Cluster and the A.I.D. Health Sector Council and won an honorable mention in the National Association of Government Communicators Gold Screen Award Competition. To date, approximately 650 English, 200 French, and 900 Spanish copies of the video have been distributed worldwide.
- Technical Assistance to USAID Missions: A Breastfeeding Division staff member traveled to Jordan to assist the mission in evaluating the Save the Children child survival project for its demographic impact. USAID/Amman expressed great interest in further programming on LAM and has requested that an additional IRH visit take place during the next reporting period.
- International Breastfeeding Collaborating Centre (WHO Collaborating Centre on Breastfeeding): The Breastfeeding Division, under the auspices of the International Breastfeeding Collaborating Centre, has been named a WHO Collaborating Centre on Breastfeeding. The official designation was announced at a reception at Georgetown following a press conference on March 9 in the Leavey Center at Georgetown which announced the launch of the UNICEF Baby Friendly Hospital Initiative in the United States. Projects considered IBCC projects have included past and future work on the Code of Marketing of Infant Feeding Substitutes, Proceedings of the Pre-Innocenti Technical Meeting, Analysis of the Simplified Technology for Breastfeeding Assessment, and other work carried out with WHO and PAHO.

Activities under the third strategy area, **Breastfeeding and NFP Interface**, are designed primarily to introduce LAM into NFP programs and to improve guidelines for NFP use during lactation. The main activities that took place during this reporting period were the following:

- IFFLP: IRH Breastfeeding Division staff traveled to Sydney, Australia, in March 1992, to participate in and lead sessions at the IFFLP Breastfeeding and LAM Experts Meeting. Concurrent with the meeting, the IFFLP Board and Zonal Council held meetings to discuss, among other topics, an IFFLP Policy Statement on Breastfeeding, LAM, and the LAM/NFP Interface. The policy was passed by both the Board and the Zonal Council, and was endorsed by participants in the IFFLP Natural Family Planning and Family Life Education Workshop for Pacific Island Nations. The policy is being disseminated to all IFFLP members and zones for feedback and implementation and is expected to be adopted formally at the IFFLP Congress in 1994. In addition, IFFLP staff, the IFFLP breastfeeding consultant, and IRH staff worked on plans for the August 1992 meeting in Yaoundé, Cameroon.

In addition, Breastfeeding Division staff began to respond to the A.I.D. Missions who requested information pursuant to the A.I.D. cable informing them about the capabilities of the Institute under its new expanded mandate. Positive responses were received from Bolivia, Dominican Republic, El Salvador, Morocco, Rwanda, and Zimbabwe.

Technical assistance continues to be provided to many international donors. Breastfeeding Division staff have been proactive in correspondence with UNFPA, UNICEF, World Bank, and IPPF. With WHO, Breastfeeding Division staff completed work on a document, The Technical Rationale for Global Action on Breastfeeding: Proceedings on the Expert Meeting Towards the Innocenti Declaration, which will be a companion piece to the extremely popular WHO publication The Physiological Basis of Breastfeeding.

Institute staff continue to be actively involved in working groups with other Cooperating Agencies, including the Working Group on Perinatal Family Planning Education and Counseling Training, the Working Group on the Family Planning Training Materials Database, and the first Working Session on Medical Barriers. In addition, Institute staff continue to review Cooperating Agencies' breastfeeding materials and regularly review articles for peer reviewed journals.

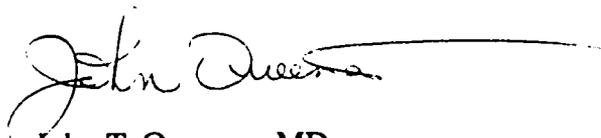
The Breastfeeding Division continues to refine its audiovisuals. A one-hour slide presentation was finalized during this reporting period, and has been given in Guatemala, Honduras, and Indonesia. The presentation is available in English and Spanish, and will shortly become available in French. Other slide presentations are underway, including shorter (30-minute and 20-minute) presentations. Work has also begun on the development of a LAM promotion and training videotape.

During the next reporting period, the Division plans to begin to continue to test LAM with working women in Chile; expand the Ecuador study into more clinics in the country to assess ongoing acceptability of LAM and operational methods to ensure the timely introduction of complementary family planning during breastfeeding; continue to plan a clinical trial of LAM at Georgetown University Medical Center; expand field projects into Africa and Asia, as well as expand IRH assistance to USAID Missions; and update several key publications and slide presentations.

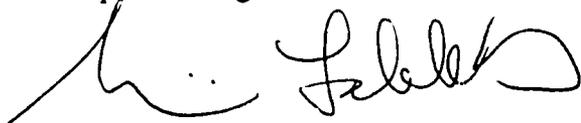
The Division also plans to conduct a meeting to bring together IRH and other experiences in LAM to assess the state of the art and to receive input for future planning. In addition, Breastfeeding Division staff hope to finalize an agreement with the new Wellstart project to expand IRH work in key areas.

The Institute is extremely pleased with its progress during this reporting period. IRH and its collaborating institutions have accomplished a great deal worldwide in the areas of Natural Family Planning and Breastfeeding. Entering the second year of our new five-year Cooperative Agreement, we have expanded our mandate and the areas of the world in which we work.

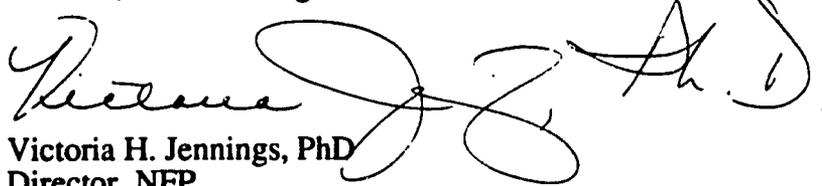
The Institute remains dedicated to working with A.I.D./Washington, USAID Missions, LDC public and private sector programs, agencies, and institutions and other Cooperating Agencies to carry out our broad-based program of research, pilot projects, training, information, education, and communication, technical assistance, and policy development and change.



John T. Queenan, MD  
Principal Investigator



Miriam H. Labbok, MD, MPH  
Director, Breastfeeding



Victoria H. Jennings, PhD  
Director, NFP

## II. NATURAL FAMILY PLANNING

### A. OBJECTIVES

The objectives of the NFP Division have evolved over the past six years from our experience in the field as well as from discussions with A.I.D., and other experts. They were confirmed by the recommendations developed during our conference, "NFP: Current Knowledge and New Strategies for the 1990s," held in December 1990. The primary emphasis of these recommendations was to continue our focus on effectiveness of method use and quality of services while increasing our efforts to expand fertility awareness and NFP availability to a wide audience.

The Institute's objectives in NFP are to:

1. Develop and test reliable, **simplified methods** for defining the fertile period.
2. Increase knowledge of and support for NFP and fertility awareness by **policy makers, health/family planning professionals, and the public.**
3. Improve, expand, and evaluate **programs** to increase availability, acceptability, and quality of NFP services and fertility awareness information.
4. Enhance **clients'** fertility awareness and knowledge, acceptance, and effective use of NFP.

The following discussion describes the strategies we employ to achieve our objectives, the activities undertaken as part of each strategy, and planned activities for the next reporting period (July 1 - December 31, 1992).

### B. ACTIVITIES

#### 1. Objective: **Develop and test reliable, simplified methods for defining the fertile period.**

- a. **Strategy:** Support and encourage research and testing to develop a simple, inexpensive home test kit for detection and prediction of ovulation.

##### (1) Multicenter Study of the Hormonal Definition of the Fertile Days of the Cycle by Home Monitoring for NFP

The purpose of this study, which is sponsored by the World Health Organization (WHO) Natural Methods Task Force, is to (1) establish temporal relationships between hormonal events and fertility signs, (2) compare menstrual cycle phases as determined by clinical symptoms with those determined by hormone data, (3) determine if use of the Ovarian Monitor (developed by Dr. Jim Brown in Australia) will reduce days of abstinence, and (4) make a qualitative assessment of the Ovarian Monitor. The results of the Ovarian Monitor in previous studies, as reported at the Institute/WHO Conference in December, 1990, were published in the American Journal of Obstetrics and Gynecology (AJOG) supplement.

During this reporting period, the Georgetown University Andrology Laboratory tested two meters using frozen urine samples with inconclusive results. The meters' results indicated that readings between meters were not comparable nor were the meters able to stabilize when calibration was attempted. Fresh urine samples were also used to test the meters. The meter results for estradiol and pregnanediol glucuronide were compared to serum progesterone and estrone results. While the serum results clearly indicated results consistent with normal hormonal patterns, the meter results did not appear to follow these trends.

The investigators of this study met in Australia in March and suggested that rather than serve as a study site as originally planned, the Institute provide technical assistance to this project by (1) providing focus group materials and/or provide training to focus group facilitators and (2) facilitating a meeting of the Investigators with WHO in Geneva to discuss plans for data analysis and a future efficacy study. While the Institute will continue to offer technical assistance to this project, funding for substantial interventions will be limited as (1) WHO has declined to set a schedule for a mid-study investigator's meeting, and (2) WHO has encouraged investigators to use interviews rather than focus groups to obtain qualitative data.

Planned Activities: We plan to continue to offer TA on a limited bases. We plan to review, if requested, the draft protocol that Dr. Jim Brown has written for efficacy study of the meters.

(2) Comparison of Home Calorimetric Test Kit to Determine the Post-Ovulation Non-Fertile Period to NFP Symptothermal Signs and Symptoms

The purpose of this study, which was supported by Quidel (formerly Monoclonal Antibodies, Inc., of San Diego, California) and carried out by the Maryland/DC NFP Providers Group, is to (1) determine if women can perform the kit assay and interpret the results, (2) compare NFPCheck™ assay results to urine pregnanediol levels, and (3) compare both NFP Check™ assay results and urine pregnanediol levels to NFP chart data. The Institute's role in this study was to provide Quidel with the study population, provide technical expertise at recruitment meetings, act as liaison between Quidel and the Provider's Group, and coordinate efforts with the Provider's Group to collect data and specimens for Quidel.

The clinical trial is now complete and all data have been sent to Quidel. A total of 60 women were enrolled. A total of 55 women successfully completed the study. Two versions of the NFPCheck™ home test kit were tested over three cycles. One version proved to be more promising than the other. Quidel is in contact with its parent organization in Amsterdam and with the FDA to determine the next steps to refine the more promising version of the test. It is expected that additional data will be required by the FDA before the NFPCheck™ is brought to market. This is because Quidel altered the instructions accompanying the test kits during the trial, after preliminary results indicated more specific instructions were required to interpret the kit results more accurately. Quidel plans to use NFP users in other parts of the country for the next round of studies, to obtain additional data with women using the revised kit instructions.

Planned activities: Quidel advises that the Institute will receive a final report of the study conducted with the Provider's Group in the next few months. The Institute is assisting Quidel to identify additional NFP study populations throughout the country for additional testing of the NFPCheck™. A Georgetown University demographer is discussing with Quidel and the Provider's Group the possibility of additional analysis of the data to contribute to her effort to develop predictive and descriptive models of the menstrual cycle.

(3) Development of Reagents to Assay Urinary and Salivary Steroid for One-Step Detection of Hormonal Changes

The purpose of this study is to (1) develop new assay technologies to measure small molecules, and (2) incorporate these technologies into a one-step test to measure estradiol and progesterone and their metabolites. The Weizmann Institute in Israel, with the support of the Institute, has developed a non-competitive immunoassay procedure, an **idiometric assay**, that is suitable for measuring

small molecules, as well as peptides and proteins. The methodology involves the use of two specific monoclonal anti-idiotypic antibodies that recognize different epitopes (idiotypes) within the hypervariable region of the primary (anti-analyte) antibody. Novel idiometric assays have been developed for estradiol and its primary urinary metabolite, estrone-3-glucuronide (E1-G), plasma progesterone and the corresponding urinary metabolite pregnanediol glucuronide (PgG) and human hormone. These assays will be eventually incorporated into a simple home colorimetric test kit to detect the presence of the hormones.

It is expected that industrial partners will be able to produce test kits, using these new technologies, which will be used to define the fertile period, predict ovulation, facilitate the teaching of NFP, and assist NFP users who are considered to be in special circumstances (i.e., breastfeeding women and perimenopausal women).

In this reporting period, a review of this project was conducted. The review was highly favorable, with the main points being:

- 1) the research needs to be directed more specifically to the original clinical objective rather than expanding the technique;
- 2) efforts should be focused on hormones having to do with ovulation prediction, especially estrone glucuronide (improving anti-idiotypic antibodies), and the purification of reagents;
- 3) more data should be collected relating to the concentration of hormone in saliva and urine during the menstrual cycle.

These steps will increase the likelihood that industrial partners will be convinced that the assays are suitable for incorporation into a self-test.

In late June, the Principal Investigator from Weizmann Institute gave a presentation of her recent work at Georgetown University. Her presentation was positively received.

The results of the early phase of this study, presented at the Institute/WHO conference, were published the December 1991 AJOG.

Planned Activities: This project will continue under a new subagreement for two more years. The research shows great promise for many applications in addition to NFP. Contacts with potential industrial partners has begun and will continue throughout the next reporting period.

(4) FSH as an Indicator of Fertility in Perimenopausal Women

Elevated FSH is associated with infertility in perimenopausal women. Typically, in vitro fertilization (IVF) is not attempted if a woman has an elevated FSH level at the beginning of her cycle. This fact may have significance for women in the perimenopausal period who would benefit from knowing the relative likelihood of becoming pregnant in a given cycle. It follows that if women who are perimenopausal rarely become pregnant if their FSH is above a certain level, FSH may be a very important indicator of fertility in older women who use NFP.

An initial research plan has been developed to study FSH as an indicator of fertility in perimenopausal women. Initially three-four urinary FSH lab tests will be selected to see if the results are similar to serum FSH test results. If it can be shown that urinary FSH tests give us information similar to serum FSH and a suitable urinary anti-serum can be identified, efforts will be made to develop a home

test kit for urinary FSH. This strategy is under review in-house at Georgetown University and among experts in the field.

Planned Activities: In-house review of the research plan will continue and the proposed research plan will be further refined.

b. **Strategy:** Support research on parameters of the fertile period which can contribute to improved practice of NFP.

(1) Changes in Cervical Mucus which Signify the Fertile Period of the Menstrual Cycle

A proposal was received from the University of California at Davis for a study of changes in cervical mucus which signify the fertile period of the menstrual cycle. The focus of the proposed project is development of a more incisive, standardizable, user friendly method for self monitoring of cervical mucus during the menstrual cycle, specifically to assist women to identify the onset of their fertile period. Using scanning microcalorimetry, the study will quantitate the entry and survival of sperm in the proliferative phase mucus and relate them to (1) mucus hydration and (2) the number of days before ovulation. The investigators are seeking industrial support to develop a simple non-isotopic method for mucus hydration measurement, amenable to application in a home kit for self monitoring.

This preliminary proposal was reviewed by the Institute, and the investigator was encouraged to submit a final proposal and protocol. He also was encouraged to continue his contacts with industry.

Planned Activities: The Principal Investigator will make a presentation at Georgetown University during the next reporting period. We expect to receive a final proposal from him at that time and to begin the project in September.

(2) Prediction of Ovulation and Monitoring of the Fertile Period

A review article on this topic was published by Institute faculty in Advances in Contraception in 1987. Various commercially-available devices to assist women in assessing and monitoring their clinical signs and symptoms of fertility were described. Given continued interest in this area and the development of new/improved devices, we would like to up-date this article. The Institute has supported this effort by sponsoring a researcher-in-residence at the Institute during this reporting period to update and bring together in written form the latest advances in ovulation prediction. Work on an initial draft of the research paper has begun and will continue during the next reporting period.

Planned Activities: We will continue communication with the researcher regarding preparation and publication of this paper.

(3) Determination of Ovulation and its Relation to Cycle Length

The purpose of this study is to determine the degree of variation in the time of ovulation and its relation to the degree of variability of cycle length for the individual woman as well as for all women in general. A group of women will be followed longitudinally for several cycles. In each cycle serial ultrasounds will be obtained, starting just prior to midcycle to determine the day of ovulation (within 24 hours). Daily urines will be collected to test urinary LH, estrone glucuronide (E1-G) and pregnanediol glucuronide (PDG); and blood samples will be collected to test for LH, progesterone (P<sub>4</sub>) and estradiol (E<sub>2</sub>). Women will keep menstrual diaries to record cycle length and record vaginal bleeding.

Several important questions will be answered as a result of the study, especially relating to understanding temporal relationships between the time of ovulation and menses. Definition of the fertile period has important implications for users of NFP methods, the manufacturers of ovulation prediction devices, and the treatment of infertility. During this reporting period, a draft protocol has been developed and has been reviewed in-house at Georgetown and with A.I.D.

Planned Activities: We plan to revise the protocol based on feedback received from our initial reviewers. The revised protocol will be reviewed and the final protocol will be submitted to Georgetown's IRB for approval. The study is scheduled to begin this fall, with various personnel from Georgetown's Department of Obstetrics and Gynecology involved in the study.

- c. Strategy: Develop and test simplified methods of NFP to increase acceptability, efficacy, and continuation.

(1) Trial of the Calender Method

An expert meeting took place at Georgetown in March to discuss the protocol and the methodology for determining a rule to use with the calender method. Reviewers in attendance were from The Institute for Reproductive Health, Family Health International, The Johns Hopkins University, the Centers for Disease Control, and A.I.D. As a result of this meeting, a consensus was reached relating to the sequence of research studies that must be carried out in order to study the method adequately. The group reached consensus that prior to conducting an efficacy trial of the method, research must be conducted to determine 1) how persons who use the calendar method decide which days they must be abstinent; 2) the reasons why couples choose to use the calendar method; 3) the number of days of abstinence that are acceptable for calender method users; 4) the adequacy of new teaching materials; and 5) how long it takes to learn the calendar method (assuming the new rules differ from what they had been using). An outline of the proposed studies was sent to WHO and was discussed at the WHO Natural Methods Task Force in May. WHO has indicated interest in supporting the Institute in a joint effort to study the calendar method.

Planned Activities: A protocol for a pilot study (to be conducted prior to the efficacy study) of the method is being developed. A potential investigator for the pilot has been identified, and further discussions will take place in July to explore this possibility. An Institute staff member will visit WHO in August to discuss the study further with the Task Force manager.

(2) Modified Mucus Method

For the past several years, the Modified Mucus Method (MMM) of NFP, developed by Dr. Kathleen Dorairaj in India, has gained popularity and recognition in some countries -- particularly in parts of Asia and Africa. Unlike other NFP methods, it does not require a woman to chart her fertility signs and symptoms, relies on sensation rather than visual observation of cervical mucus, and requires fewer days of abstinence. The Institute is not directly involved in studies of this method. However, we continue to monitor results of other studies of the MMM (such as the one conducted by The Johns Hopkins University with support from WHO) and are considering how we could best approach this issue. We have been contacted by Dr. Anna Flynn regarding MMM use in Uganda and are discussing with her several possibilities for an MMM acceptability, use effectiveness, and continuation study. Dr. Dorairaj's paper on the MMM, presented at the Institute/WHO conference, was published in Part II of the conference proceedings.

Planned Activities: We will maintain contact with other researchers and field programs using the MMM and develop an appropriate strategy for the Institute in this area. We will discuss this further with Dr. Flynn in October.

**2. Objective: Increase knowledge of and support for NFP and fertility awareness by policy makers, health and family planning professionals, and the public.**

**a. Strategy: Conduct research on key issues to overcome barriers to NFP and fertility awareness.**

(1) Outcome of Pregnancies in NFP: Fetal Effects

The purpose of this study is to determine whether pregnancies associated with aged gametes result in more frequent incidence of spontaneous abortion and/or congenital malformation than other pregnancies. The second phase of this study, which is being conducted by the University of Tennessee with field sites in several countries, was initiated during this reporting period. Data indicate that there is no significant increase in spontaneous abortion rates of women who conceived while using NFP (although when analysis was restricted to women with prior history of fetal losses, significantly lower loss rates were noted in conceptions on mucus peak and day-1 compared to preovulatory and postovulatory conception). Data collection and analysis continues regarding fetal abnormalities. The data on sex selection also has been analyzed. Site visits were conducted in January to the two Chilean Universities that are participating in the study.

The Institute also is supporting the effort to combine data from this study with data from the Estudios Colaborativos Latino Americanos sobre Malformaciones Congenitales (ECLAMC). ECLAMC has added questions to their standard form, with which they collect data from several participating hospitals throughout the region, to provide information on sociodemographic characteristics and pregnancy intention of couples experiencing contraceptive failures (in NFP users compared to users of other methods).

Planned Activities: An investigators' meeting is planned for April '93 in conjunction with the IFFLP Zonal Meeting in Paraguay. Preliminary reports will be given at the SAC meeting in Barcelona on October 19, 1992, and at other appropriate meetings. Articles on the spontaneous abortion data and the sex selection will be submitted for publication during the next reporting period.

(2) Analysis of Periodic Abstinence Data from the Demographic and Health Surveys (DHS)

During our original cooperative agreement with A.I.D., we contracted with the Institute for Resource Development (IRD) to conduct separate analyses of periodic abstinence data from their surveys. One of our subrecipients, the University of Pittsburgh Graduate School of Public Health, received relevant data tapes from IRD and was responsible for analyzing them more thoroughly, emphasizing intensive analysis of data from countries with high levels of periodic abstinence use. IRD completed its work, indicating the following: (1) highest levels of current use of periodic abstinence are observed in Bolivia, Peru, and Sri Lanka (15 - 18 percent of all currently married women [CMW]); (2) other countries with significant current levels of periodic abstinence among CMW include Colombia, Ecuador, Ghana, Kenya, Togo; (3) in several countries with very low levels of contraceptive use (such as Burundi, Mali, Senegal, and Uganda), a large percent of family planning users rely on periodic abstinence; and (4) in many countries, large percentages of CMW who state that they are periodic abstinence users do not know when during their menstrual cycles they are most likely to become pregnant.

Planned Activities: We have discussed another project with IRD, in which they will analyze data from selected DHS II and III countries, write country reports, and prepare a comparative report. We expect to receive a proposal from IRD in mid 1992.

(3) Intensive Analysis of Peru Periodic Abstinence Data

The purpose of this project, which was carried out by an investigator from the College of William and Mary, was to provide more analytical information about sociodemographic and behavioral aspects of periodic abstinence use. The general analysis of contraceptive behavior, which examines the determinants of contraceptive use and use-effectiveness, has been completed. Findings were that for all contraceptive types, systemic variability in use-effectiveness is evident. Older women always do better, and the effect of age for contraceptors is magnified relative to the same effect for noncontraceptors, indicating a behavioral component in addition to whatever fecundability effects occur with age. (Both the Peru and Dominican Republic Experimental DHSs were used for this work.)

With the Peru data, an analysis of periodic abstinence specific variables and their effect was completed. It was found that women's characteristics play a more important role than program characteristics in determining use-effectiveness, and that those who report significant problems with periodic abstinence are likely to be current pill users. Whether these women are past users or not is not clear, so it is premature to draw conclusions regarding method switching from these results.

The investigator reported these results at the Population Association of America Meeting.

Planned Activities: During the next reporting period, an article on these results will be submitted for publication.

(4) Further Analysis of Contraceptive Failure of the Ovulation Method

This research was carried out by investigators at the Office of Population Research, Princeton University. Their reanalysis of data on the ovulation method (OM) of NFP collected by WHO yielded the following conclusions. The method is effective during perfect (correct and consistent) use, with a first-year probability of failure of 3.4 percent. However, it is extremely unforgiving of imperfect use, with a first-year probability of failure of 84.2 percent if the method is not used correctly. During the initial year, 87 percent of the cycles were characterized by perfect use. Nevertheless, the 13 percent of cycles characterized by imperfect use had a tremendous impact on the overall failure rate. During the first year of typical use, 22.5 percent of the women in the clinical trial became accidentally pregnant.

Results of this analysis were published in *International Family Planning Perspectives*.

Additional analysis was carried out on the OM data set to develop a rule for the proposed study of the calendar method. Preliminary analysis shows that a high percentage of fertile days can be covered using a simple rule to define the fertile period.

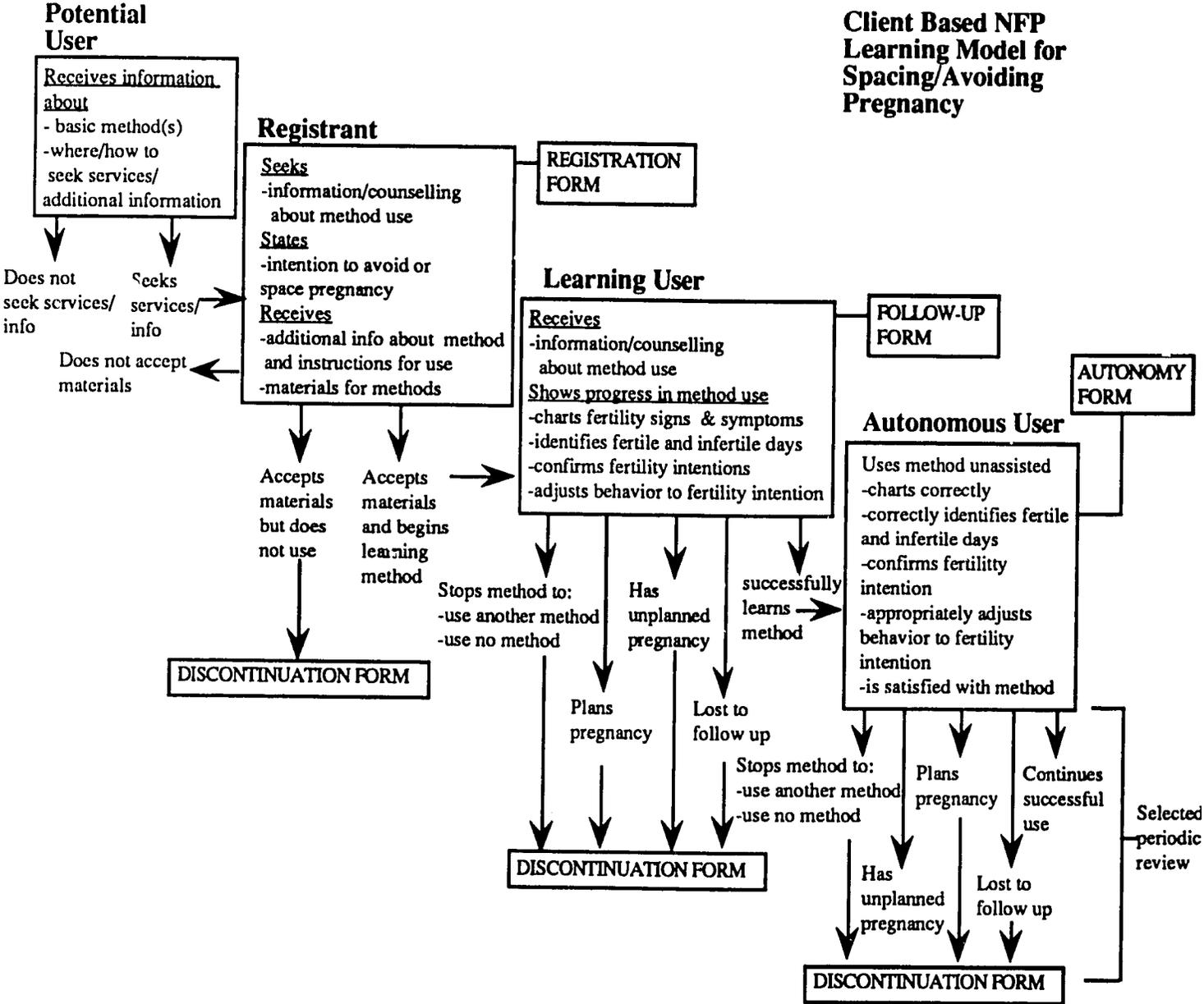
Planned Activities: Based upon the promising preliminary results of the reanalysis of the OM data set, the Institute plans to conduct clinical studies of the calendar method. Selection of the specific rule to be used will be finalized following preliminary field research.

(5) Prospective Monitoring of NFP Services and Users

A potential source of information about efficiency and effectiveness of NFP services and methods is routine data, collected and reported by NFP programs. As part of our comprehensive effort with IFFLP (see section II.3.b.(1) of this report), we are collaborating with colleagues in the field to design, implement, and test a management information system (MIS) to collect data on a pilot basis from three-five NFP programs worldwide. During this reporting period, we held several planning meetings to build consensus on the design of the MIS. The first meeting included Institute and IFFLP staff and technical experts (one from Johns Hopkins University and the other an Institute evaluation consultant) as well as consultants from IPPF/WHR and The Diocesan Development Program. That meeting resulted in consensus on the key data items and definitions. A second meeting was held with IFFLP staff and the JHU consultant to discuss criteria for selecting programs to participate in the pilot implementation, and to further clarify the scope of the pilot effort.

To assist us in our planning for an MIS, we developed a chart to illustrate a client based NFP learning model .

# Client Based NFP Learning Model for Spacing/Avoiding Pregnancy



**Planned Activities:** A reporting form for pilot programs will be developed and programs selected worldwide for participation in the pilot. Myrna Seidman, Institute Consultant, will participate in the IFFLP Africa Zonal meeting in Cameroon and present the MIS design to participants. In collaboration with Bob Kambic, the JHU consultant, she will also conduct a workshop on analyzing and using MIS data, as part of an effort to create interest in participating in the pilot. We expect that programs will start reporting on the MIS data form by the end of 1992.

(6) **NFP Prospective Study**

A prospective study of NFP users was conducted by Action Familiale/Mauritius, to determine what factors influence the successful use of the Symptothermal Method (STM) and its failure and discontinuation. The study was undertaken from February 1989 - May 1991 among 1,000 NFP users in Mauritius. Eligible users were recruited as they entered the NFP program. The data were collected in respondents' home during a first interview and follow-up interviews until clients reach a period of 18 months.

The preliminary tabular analysis of the study data was submitted by Action Familiale to the Institute in its final report. Findings include the following: (1) neither spacers nor limiters find abstinence difficult, although more spacers find it difficult than do limiters; (2) knowledge of the STM is greater among clients with a secondary education than among those with a primary education; (3) among husbands who do not find abstinence difficult, a large percentage are very interested in discussing NFP with their wives, while among those who do have difficulty with abstinence, there is less interest in discussing NFP.

This study produced a large, complex data set which will require much more analysis. We have sent the final report to A.I.D. requesting guidance on how this can be accomplished.

**Planned Activities:** During the next reporting period, we will work with Action Familiale to develop a plan for carrying out this analysis. A meeting with the study's Principal Investigator, Richard St. Mart, is scheduled for August during the IFFLP African Zonal Meeting.

(7) **Group Teaching NFP**

This pilot project, conducted by Action Familiale in Mauritius, developed, implemented, and evaluated a model for group teaching of NFP. Recent changes in the socioeconomic situation in Mauritius had challenged the viability of the individual approach.

Based on study results, Action Familiale recommended that clients for group teaching be recruited in existing groups and that a course should have minimum of ten clients. They also recommended that the supervisors' time with group teaching courses be reduced and that a modified group teaching curriculum program for specific groups should be developed.

**Planned Activities:** During the next reporting period we will meet with Action Familiale staff to explore the possibility of editing the report for submission to an appropriate journal.

**b. Strategy:** Communicate with target audiences to increase their knowledge of and support for NFP.

(1) NFP: A Good Option

This document, which was developed during our initial cooperative agreement in collaboration with the IMPACT project at the Population Reference Bureau (PRB), has been very well received. Its purpose is to encourage policy makers to include NFP in comprehensive family planning efforts. We are unable to meet any further requests for the English version; however, we have a sufficient stock of French and Spanish versions. During this reporting period we analyzed the results of a survey of several of the major recipients of the document to identify how it might need to be changed when we reprint it. The needed changes are relatively minor and can be made without substantial reformatting.

Planned Activities: We plan to modify and reprint the English version and disseminate it as appropriate. A consultant is assisting us with this. We expect that the document will be published and disseminated during the next reporting period.

(2) Glossary of NFP Terms

This document also was developed during our initial cooperative agreement. Its purpose is to provide a common terminology which can be used by the NFP field. The definitions that describe a client's flow through the process of accepting and learning to use NFP (the NFP Learning Model), are being revised according to the recommendations from the MIS meeting. Several of the terms relating to breastfeeding also need to be updated. The Institute's Breastfeeding Division has provided the definitions in the area.

Planned Activities: We will incorporate the revised terms into the Glossary. It will be reprinted in English, French, and Spanish and disseminated.

(3) Guide for NFP Trainers

The Guide is a resource for trainers who plan, implement, and evaluate training courses for NFP instructors. The first edition has been widely disseminated in English since early 1990. The translation and production of the French and Spanish versions has been an extremely lengthy process. The French version has been disseminated during this reporting period, and the Spanish version is now ready for dissemination. The demand for the Guide has been quite high. We have negotiated with the publisher to produce a less expensive version (in English) for wider distribution.

Planned Activities: The Spanish version will be disseminated, and a less expensive English version will be produced. The Guide will be re-sent to selected CAs, with a letter regarding adaptation of the fertility education component for general family planning training.

(4) Natural Family Planning: Current Knowledge and New Strategies for the 1990s (proceedings of a conference)

An international conference, "Natural Family Planning: Current Knowledge and New Strategies for the 1990s," was held at Georgetown University in December 1990. It was supported by the Institute, A.I.D., and WHO. The conference, with an attendance of approximately 150 people from 30 countries, offered a forum for representatives of the population and health fields, including both the NFP and multimethod family planning communities, to present research and program results

and to exchange ideas and experiences. The proceedings of the four conference sessions that focused on biomedical research have been published as a special supplement to the December 1991 American Journal of Obstetrics and Gynecology (AJOG) and disseminated by the Journal to its approximately 22,000 subscribers worldwide. We also have disseminated 2,000 additional copies. The proceedings of the remaining nine sessions and the round table discussions have been published as a companion piece to the AJOG document. They are now ready for dissemination. WHO has requested 500 copies each of the AJOG supplement and companion piece.

**Planned Activities:** A major distribution of both volumes of the proceedings will be conducted during the next reporting period.

(5) **NFP/Fertility Awareness Modular Slide/Audio Set**

A great need has been identified for a comprehensive, flexible set of slides that can be used with multiple target audiences (e.g., policy makers, educators, health workers, etc.). A consultant is working with us on a four-phase process to:

**Phase I:** Review appropriate background materials on fertility awareness and NFP; conduct initial discussions with six-eight key people to identify needs, target audiences, etc.; review existing slides (Institute slides as well as those available elsewhere); and prepare an outline of the final product and a time line/management plan for completion.

Review outline/concept with a larger audience for feedback (NFP programs, other CAs, communications specialists, etc.); incorporate their ideas and revise outline accordingly; identify additional resources for slides.

**Phase II:** Assemble slides and order ideas and messages to provide a "draft" slide set for initial testing and review.

**Phase III:** Pretest slide set with target audiences, revise per feedback, and prepare a copy for final field testing.

**Phase IV:** Disseminate the slide set for final field testing, make final revisions, and disseminate widely.

During this reporting period, Phase I was completed.

**Planned Activities:** During the next reporting period, Phase II will be completed and Phase III will begin. We will pretest the slide presentation at three international meetings in October and with five CAs in November and December.

3. **Objective:** Improve, expand, and evaluate programs to increase the availability, accessibility, and quality of NFP services and fertility awareness information.

- a. **Strategy:** Conduct research and provide guidelines to improve the use of NFP by women in special circumstances.

(1) Efficacy of the Symptothermal Method in Lactating Women After the Return of Menses

The purpose of this project, which was conducted in collaboration with the Maryland/DC NFP Providers Group, is to determine (1) the ability of the Symptothermal Method to predict ovarian activity and ovulation in breastfeeding women after the period of lactational amenorrhea; (2) the amount of abstinence actually required for women to avoid pregnancy versus what they identify as necessary based on their observation of clinical signs and symptoms; (3) the relationship of feeding patterns to cervical mucus activity; (4) the relationship of subjective assessments of cervical mucus to the volume of aspirated cervical-vaginal fluid; (5) the reliability of cervical-vaginal fluid volume as a predictor of ovarian activity after the end of lactational amenorrhea; (6) the bleeding patterns, number, and characteristics of ovulatory cycles and ovarian activity in these women; and (7) the ability of basal body temperature to reflect ovulatory activity during this time period. Preliminary results of this study have been reported previously. Final analyses are still underway.

Planned Activities: The remaining assays will be conducted, and the remaining data will be entered and reviewed. In collaboration with the Breastfeeding Division, we will determine an appropriate analysis strategy.

(2) Interpreting Cervical Mucus in the Presence of Vaginal Infections

The purpose of this study will be to determine if women who use NFP are able to distinguish cervical mucus from vaginal discharge concurrent with an infection. It is believed by some that it is not possible to use NFP when a vaginal infection is present. Others believe that women can be taught to distinguish cervical mucus from discharge caused from infection. Women with vaginal infections are considered to be women in special circumstances who may have difficulty using NFP.

Planned Activities: During the next reporting period we plan to review the literature and develop a research strategy to study this issue.

**b. Strategy:** Provide financial and technical support for NFP service delivery.

(1) NFP Technical Assistance Project

The initial subagreement with IFFLP has been modified to extend the agreement through to 1996. Under the workscope for 1993, IFFLP will provide technical assistance and financial support to NFP programs in four countries, support the implementation of the MIS in three-five countries, support the conduct of a Pan-African Zonal meeting in Cameroon, and sponsor two special projects: a Lifestyle Education project in Zambia and Management Training conducted by l'Action Familiale of Mauritius .

During this reporting period the project agreement for Zambia was approved, and technical assistance visits were conducted by IFFLP staff to Brazil, Papua New Guinea, and the Philippines. Reports on these visits have been reviewed and approved by the Institute and forwarded to A.I.D.

The proposal for the Zambia Lifestyle Education project was also reviewed by the Institute, and changes were requested in both the evaluation plan and teaching curriculum. Both A.I.D. and the mission have approved this project, contingent on the stated revisions.

The Institute also reviewed the proposal for the management training program with l'Action Familiale of Mauritius and approved it once the evaluation section was strengthened. The first phase of the management program will be implemented in conjunction with the zonal meeting in Cameroon.

**Planned Activities:** We expect that during the next six months, IFFLP will finalize project development and sign agreements with NFP programs in the Philippines and Brazil. In addition, programs to be included in the data collection/MIS effort will be identified and agreements will be signed with at least three of them. The Institute will continue working closely with IFFLP staff to achieve project objectives, particularly in the area of client and program data collection.

(2) **Integrating NFP Services into Public Health Programs**

During this reporting period, the subagreement between LARFPC and the Natural Family Planning and Medical Services Centre of Nairobi, Kenya was finalized to continue, for three additional years, the project "NFP Training in Nairobi: Integrating NFP Services into Health Programmes." During the project 48 new NFP instructors and 24 NFP supervisors will be trained and 15 new NFP programs within the public health care system will be developed under the direction of Mrs. Sabina Mwaulu. Prior to finalizing the subagreement, in collaboration with Mrs. Mwaulu and the USAID Mission in Nairobi, the proposal was modified to include the development of a supervisory infrastructure for the growing network of NFP programs, the possibility of a cost-effectiveness analysis component, and the introduction of LAM concepts into the NFP instructors' training program.

The subagreement with the NFP Services Centre has been signed by LARFPC, the IRH and AID/Washington. USAID/Nairobi approval was also received. The project has a start date of July 1, 1992.

**Planned Activities:** A field visit will take place during September of 1992. During this visit on-site assistance and support for the NFP instructor training will be given. In addition, assistance will be given in the areas of NFP instructor supervision, client education, data collection, and evaluation. The possibility of integrating LAM into future NFP instructor trainings will be discussed. In addition, an assessment of the feasibility of conducting a cost-effectiveness analysis of NFP service delivery at two program sites will be made. Diane Vogelsang, LARFPC Project Monitor, will meet with Institute staff in Washington prior to her site visit in Nairobi.

(3) **Informing and Motivating Health Professionals**

A pilot project with the Center for Research, Education, Service and Training (CREST) in Bangalore, India, completed during the Institute's previous cooperative agreement, resulted in a significant model for bringing NFP information to the attention of local leaders, health service providers and others in a position to promote NFP. In addition a viable model for future instructors' training programs was developed. These programs could contribute to future successful family planning efforts throughout India.

**Planned Activities:** During the next reporting period, Institute staff will work with LARFPC (which provided the TA to the project) and CREST to prepare a publishable report of this project.

(4) Guidelines for NFP and Fertility Awareness Incorporation

During our initial cooperative agreement, draft guidelines for incorporating NFP and fertility awareness into other ongoing programs (e.g., multimethod family planning, child survival, women in development, and community development programs, etc.) were developed. Expansion of NFP and fertility awareness beyond traditional NFP programs was identified as a high priority by the participants in the international conference in December 1990; it is clear that for such expansion to produce the desired results, programs will require considerable guidance in all aspects of planning and implementation. During this reporting period, the draft Guidelines were distributed for in-house review.

Planned Activities: We will identify an appropriate consultant to work with us on this effort. The existing draft guidelines will be reviewed, and input from a variety of sources will be solicited. The next draft will be ready for external review by December.

(5) Evaluation

During this period, Myrna Seidman, who was retained as a consultant by the Institute, developed an evaluation strategy for NFP programs. The strategy provided an overall building block approach to evaluating the Institute's projects. The strategy starts with the development and implementation of an MIS, and moves to the design of descriptive and evaluative analysis of country programs and the conduct of applied research and measurement studies.

Progress has been made in designing an MIS for NFP programs which concentrates on a minimal data set with standard definitions and a user friendly orientation. Once field reactions to this pilot MIS are offered (during the Pan African Zonal Meeting in Yaoundé), refinements made and countries selected, the MIS will become operational and quarterly service statistical reports will be received from the participating countries. Since we see the country programs as the prime beneficiaries of the MIS, assistance in interpreting the data will be provided to participating countries. Programs will also receive compilations of their data and comparisons across programs.

Evaluations have also been designed and incorporated into the IFFLP special projects and into the fertility awareness pilot projects that will be carried out in collaboration with PATH and in-country subcontractors.

Planned Activities: During the next six months we will emphasize the selection of countries for the MIS and its implementation in these countries. We will also continue to monitor evaluation efforts of our on going projects and develop the instruments and procedures for conducting descriptive analyses of country programs.

(6) Technical Assistance

Technical assistance (TA) to USAID missions, CAs, and developing country organizations is a major mechanism to encourage family planning, child survival, and educational programs to include fertility awareness and NFP in their efforts. TA is provided by Institute staff and consultants as well as by several of our subcontractors (particularly IFFLP).

As a follow up to TA provided in mid-1991 to USAID/Port-Au-Prince, initial discussions were held regarding additional assistance and project development. We will explore this further, depending on the future situation on Haiti.

In response to A.I.D.'s worldwide cable about our new project, we received requests for assistance from missions in Rwanda and El Salvador. These will be followed up during the next reporting period.

TA to Cooperating Agencies: The Institute assisted JHPIEGO with the development of the NFP and fertility awareness portions of its family planning guidelines for Papua New Guinea; provided materials and review to INTRAH on the revision of its training materials; and, in collaboration with representatives from numerous other CAs, co-authored the final report of the Task Force on Standardization of Family Planning Indicators: Quality of Care. Additional materials were provided to IPPF/WHR and IPPF/London. A presentation on fertility education was given by an Institute consultant at the AVSC meeting in Turkey on counseling and quality of care.

TA to NFP Programs: Assistance was provided by the Institute and its subcontractors to NFP programs in Brazil (to strengthen institutional and project management and data collection procedures); the Dominican Republic (to improve project management and data collection and to identify possible strategies to achieve sustainability); Chile (to assist with continuation plans for the pregnancy outcome project and assess institutional needs/capabilities in management information systems); Papua New Guinea (for general program development and data collection); and the Philippines (for assistance in management).

Planned Activities: As part of the further development of the "Guidelines for Incorporating NFP and Fertility Awareness into Other Ongoing Programs," the Institute will contact numerous CAs and USAID missions regarding their interest in and perspectives on this issue. This is expected to lead to several requests for TA in NFP and fertility awareness. The proceedings from the December 1990 conference, which are being disseminated to all CAs and USAID missions as well as to a wide range of field programs, may also lead to requests for TA. In the dissemination cover letter, we will highlight Institute interest in providing TA and suggesting areas in which this assistance could be most useful.

(7) Management Training for NFP Programs in Africa

The Institute has reviewed and approved a proposal submitted by IFFLP for support to the regional training center of l'Action Familiale of Mauritius to train 11 senior managers of NFP Programs from six African countries. This training program will address the need for stronger managers with better management skills to guide the transition of NFP services from grass roots voluntary organizations to professional, integrated and sustainable service delivery systems. The management training preceptorship will include an introductory workshop which will be conducted during the Yaoundé IFFLP Zonal Meeting, three three-week management preceptorships (one in English, two in French), and follow up visits to help the managers implement the plans developed during the preceptorship.

This management training program will be a collaborative effort between IFFLP, l'Action Familiale and The Pan African Institute for Development (PAID) who will assist in organizing and conducting the introductory workshop in Yaoundé. Financial support for the project will also be provided by the the Canadian Agency for International Development (CIDA).

Planned Activities: An introductory workshop for NFP program directors and senior managers will be held in August in Yaoundé, Cameroon, as part of a larger African Zonal Meeting. The workshop will introduce managers to basic management tools including a full-day session on service statistics data collection, analysis, reporting and utilization. The workshop will also give organizers the

opportunity to make a final selection of seven managers for the preceptorship. Ms. Seidman, who will be in Yaoundé, will meet with the course organizers to review and refine the course design and evaluation forms.

Plans for the conduct of the preceptorship will be finalized following the zonal meeting along with the evaluation design and instruments. A possible trip to observe the preceptorship course may be conducted by Myrna Seidman if the course in English is conducted during this period.

(8) Lifestyle Education: Teen Star Program

The Institute and A.I.D. have approved a subagreement between IFFLP and the Family Life Movement of Zambia (FLMZ) for a lifestyle/sexuality education pilot program for teens. The program includes classroom teaching and individual counseling and is expected to reach 1,000 adolescents over an eight-month period. The program's effectiveness in reducing sexual activity among teens will be intensively evaluated through a contract with a consultant from Brigham Young University. Technical assistance to the project will be provided by Dr. Hanna Klaus, who developed the Teen Star program and submitted the proposal for the Zambia project to IFFLP.

Institute staff reviewed the initial proposal and raised a number of questions about the teaching curriculum and the evaluation plan. Approval of the proposal was delayed pending the correction of these problems. A meeting was held with Institute staff, IFFLP, the project consultant (Dr. Hanna Klaus), and A.I.D. to address these issues.

Planned Activities: Dr. Hanna Klaus will conduct an assessment of the effectiveness of the teaching and curriculum delivery by visiting the project and overseeing the teaching, during the month of November. FLMZ will collaborate with her on this evaluation. A report on the mid-term evaluation will be submitted to the Institute.

4. **Objective:** Enhance clients' fertility awareness and the knowledge, acceptance, and effective use of NFP.

a. **Strategy:** Develop and test messages and communication strategies to improve fertility awareness.

(1) Simple Fertility Awareness Messages

Several countries have been identified as potentially appropriate sites for a project that would develop, test, and communicate simple fertility awareness messages designed to improve the ability of couples who state that they are using periodic abstinence as their family planning method to correctly identify the woman's fertile and infertile phases. For example, according to data from recent DHSs, more than one-half of women in Bolivia who use any method of family planning use periodic abstinence. However, the majority of women who state that they are using periodic abstinence to avoid pregnancy do not know when during their menstrual cycles they are most likely to become pregnant. The Institute has developed simple "fertility awareness" messages that can improve people's knowledge of their fertility. It is anticipated that increased knowledge will increase effectiveness of periodic abstinence use and provide a knowledge base for correct use of other user-dependant family planning methods.

To carry out a pilot project in Bolivia, we have contracted with PATH. A PATH representative traveled to Bolivia in April to develop the project. We have received

a draft of PATH's proposal for the project and expect the final version in early July. We also have received a request from USAID/Guatemala for a similar project.

Planned Activities: A modification to our subagreement with PATH will be signed to permit PATH to support the project in Bolivia and provide technical assistance.

A field visit by PATH staff to Guatemala is scheduled for early August. We expect to implement a project there by October.

(2) NFP Casebook

The Institute is developing an NFP Casebook to assist in training teachers to work successfully with a wide variety of clients, particularly with regard to counseling issues. The cases will be based on actual experiences of NFP teachers in selected developing and developed countries worldwide. Each case focuses on a specific "problem" (e.g., couples with different fertility intentions, women who have become "uncertain" with their method because of special circumstances, couples having difficulty with abstinence) or "situation" that is common in NFP. The casebook will be organized developmentally, i.e., beginning with issues particularly relevant to a young woman/couple just beginning to learn/use the method, progressing through couples during their child bearing years to those entering pre-menopause.

A project development plan is being prepared.

Planned Activities: The project development plan will be finalized and implemented.

(3) Quality of Care in NFP Programs

The Institute supported two participants to attend the AVSC-sponsored workshop on Quality of Care, which was held in Turkey in April. The primary focus of the workshop was the role of counseling in quality of care. An Institute participant made a presentation on fertility education as an element of counseling.

Both participants also will attend the IFFLP zonal meeting in Cameroon in August. They have been contacted about taking this opportunity to work with an Institute staff member to outline and draft a report on counseling and quality of care in NFP programs.

Planned Activities: An Institute Issues Report will be prepared on this topic.

(4) National Coalition Of Natural Family Planning

Currently the National Coalition of Natural Family Planning has 54 individual and 12 organizational members. A new/renewal membership campaign is being planned. In addition, the Coalition is exploring the cost and development of a national certification test for NFP instructors.

The annual meeting of the National Coalition of Natural Family Planning was held at Georgetown University in Washington, DC, on June 29, 1992. During the meeting, the coalition unanimously agreed that committees be formed for specific work to be accomplished during the year. There will be a scientific/research committee, a public relations committee and an archive committee. The standardization of record keeping forms to document the use effectiveness of NFP was stressed.

Planned Activities: The Coalition is proceeding with plans for a conference entitled "Unity in 1993 Conference." The conference plans were discussed at length during the June meeting. At present this conference will take place in the Fall of 1993.

### C. ADMINISTRATION

Because the NFP Division carries out the majority of its work through subcontractors and consultants, careful coordination among all project elements is essential to ensure that all are aware of each other's objectives, strategies, and activities.. To increase coordination and enhance the Institute's ability to achieve its objectives, a project review meeting will be held with our subcontractors and consultants in November-December. This will enhance subproject collaboration and help us identify priorities for the subsequent year. Tentatively, participants will include all interested Institute staff (including both NFP and Breastfeeding Divisions), representatives from IFFLP, LARFPC, the Maryland/DC NFP Providers Group, PATH, the Institute for Resource Development, and other subcontractors; Institute consultants working with us on the MIS, the evaluation strategy, and the modular slide set; and A.I.D. In addition, we may invite a small number of experts who are familiar with the Institute's work and can contribute to our review and discussions. During the next few weeks, we will discuss this meeting with our colleagues, develop an agenda, and make arrangements for the meeting.

### **III. BREASTFEEDING**

#### **A. OBJECTIVES**

The GU/IRH goal in breastfeeding is to increase the availability and acceptability of optimal breastfeeding with a focus on its fertility impact. The Breastfeeding Division's three objectives are

1. Continued testing and refinement of the Lactational Amenorrhea Method (LAM);
2. Policy change favoring optimal breastfeeding;
3. Program changes to include LAM, the fertility aspects of breastfeeding, and the timely introduction of family planning postpartum.

LAM is an introductory method of family planning which enhances acceptance of family planning and supports women in optimal child health practices.

The Division's strategy to achieve the objectives of refining LAM use, achieving policy change, and producing program change focuses on three program areas: (1) LAM and the timely introduction of family planning during breastfeeding; (2) the fertility aspects of breastfeeding; and (3) the breastfeeding/NFP interface. In each program area, the Breastfeeding Division provides (a) technical and funding support for research and pilot projects; (b) provides information and education to health professionals and policy makers; (c) and uses the research and policy results in support of program and policy change through technical assistance to existing programs, especially addressing family planning organizations, including Cooperating Agency and A.I.D. Mission needs.

#### **B. ACTIVITIES**

The following activities took place during the reporting period January 1, 1992 - June 30, 1992.

##### **1. LAM: Breastfeeding and Family Planning Interface**

Activities in this area consist predominantly of direct support of the LAM/family planning method and family planning program interface, which includes research, pilots, education, and technical assistance for LAM in family planning and child survival programs, as well as timely family planning in breastfeeding programs.

##### **a. LAM: Research and Pilots**

##### **(1) Chile: Pontificia Universidad Católica**

##### **(a) Chile: Clinical Study of LAM**

The first phase of the Institute's project in Chile with the Pontificia Universidad Católica was a case-control breastfeeding support intervention study. It has shown: (1) the efficacy of LAM in clinical trial is higher than 99.5 percent; (2) family planning coverage at six months is increased when LAM is offered to women as a family planning option; (3) infant growth excels under full breastfeeding; (4) with proper support for breastfeeding, women within feeding category demonstrate increased durations of amenorrhea; and (5) the "LAM eligible" population (those fully breastfeeding and amenorrheic) increased when there was support for breastfeeding.

A conference was held in October 1990 to present "Advances in Breastfeeding for Health and Child Spacing." The efforts of the project team, Drs. Perez, Valdes, and their colleagues, resulted in an extremely successful conference that was attended by more than 350 doctors, nurses, and nurse-midwives. While participants were primarily Chilean, representatives from the Ministry of Health of Honduras and CEMOPLAF/Ecuador also attended; and speakers were drawn from the regional Institute projects. Institute staff were heavily involved in the conference as well, and Institute breastfeeding materials were widely disseminated to all participants. Wellstart's collegial participation added yet another area of expertise and network of potential activity.

The 99.5 percent efficacy of LAM demonstrated in this study included only women who did not plan to work outside their homes. Since worldwide there is an increasing number of women who return to work before the sixth month postpartum, and in Chile, in particular, 30 percent of the female population returns to work at about 84 days postpartum, it is essential to determine a protocol for LAM use and its efficacy among working women. The project will proceed with the hypothesis that, by supporting working women in achieving optimal breastfeeding, the number of women eligible for LAM (i.e., those who maintain full breastfeeding and amenorrhea), can be increased, and that by following certain rules or guidelines, LAM can be an effective introductory family planning method for working women.

During this reporting period activities have begun under extension funding, including:

- Final revision and translation of Lactancia Materna: a draft revision has been completed.
- Publication of the breastfeeding and LAM reference book, Lactancia Materna: pending.
- Publication of several scientific papers: Two papers were accepted, one of which was published in the Lancet, and four more are in preparation.
- Follow-up to the October 1990 conference: Questionnaires were sent to all participants and several have asked for assistance. Those specifically interested in LAM will be selected for site visits.
- A clinical trial of LAM use by working mothers: A protocol was written, sent out for external review, revised, submitted for PUCEC/IRB review and initiated. To date, seven women in the trial have achieved between 90 and 180 days of LAM use. No pregnancies have occurred.

In addition, the two articles submitted for publication to the Journal of Tropical Pediatrics and Lancet were accepted and the Lancet article was published (see publications list).

Planned Activities: A visit to the project site is planned in July 1992 to continue publication efforts. The draft Lactancia Materna will be translated into English with PAHO support and the Chilean investigation will select four to seven sites to visit in Chile to follow up expressed interest in breastfeeding and LAM. The site visit in July may lead to further refinements in the protocol and an update on project progress. Recruitment will continue, and, based on the rate of recruitment, the project may be extended.

(2) Honduras: LAM in a Mother-to-Mother Setting

The Institute is working with La Leche League International in Honduras. Here the focus is LAM in a Mother-to-Mother Child Survival Support Project. This operations research project encompasses: (1) the training of physicians, nurses, and

breastfeeding advocates (BAs) who serve the Las Palmas area of San Pedro Sula in breastfeeding and LAM; (2) the initiation of six mother support groups; and (3) the assessment of the referral of mothers in the community to family planning services as a direct consequence of LAM training. Research is documenting the effectiveness of breastfeeding advocates in the promotion of breastfeeding practices, communication of LAM, and family planning referral above and beyond the impact of the breastfeeding supportive health services. Technical assistance related to the implementation of the project is being provided through a subagreement with INOPAL.

The project is being carried out with the participation of various institutions, including the Ministry of Health, Social Security, the Municipality of San Pedro Sula, and the neighborhood organizations known as the padronatos. This approach was used to integrate the project's findings and program changes into the existing maternal child health system. This condition was required by the MOH so that the project would not be an isolated endeavor. A number of training activities have taken place, including a five-day regional medical conference on Advances in Infant Nutrition and Child Spacing.

The first phase of the Honduran study of LAM in a mother-to-mother setting has been completed. The continuation project was signed in November 1991. The five specific objectives of the continuation project are the following:

- Execute a follow-up survey to evaluate the impact of a full year of the community intervention;
- Organize four skill training workshops for both La Leche League staff and breastfeeding advocates (BAs);
- Develop educational materials related to exclusive breastfeeding and LAM;
- Plan and execute a national-level medical conference on family planning during lactation for key MOH and Social Security personnel;
- Conduct an end-of-project dissemination meeting for cooperating institutions.

An IRH consultant made a trip to Honduras in March 1992 to monitor activities under the extension project. In June 1992, IRH staff from Washington and a representative of CEMOPLAF/Ecuador presented LAM and the Ecuador project at a conference on Family Planning During Breastfeeding which was held in Tegucigalpa.

Planned Activities: The second phase of the project is completing survey analysis to assess the impact of the intervention on breastfeeding and on the timely acceptance of family planning by breastfeeding women and will provide written steps for other programs wishing to use this approach. All other activities are proceeding as scheduled.

### (3) Ecuador: LAM in a Family Planning Setting

In Ecuador, the Centro Medico de Orientación y Planificación Familiar (CEMOPLAF) in Quito is testing the LAM guidelines in a family planning service delivery system. The project was designed by CEMOPLAF with input from the Los Angeles Regional Family Planning Council and IRH staff to facilitate the successful integration of LAM into an existing multimethod family planning service delivery system.

A field visit was conducted jointly by LARFPC and IRH staff in January 1992 for the purposes of finalizing the operations research protocols for the project, and providing technical assistance to the training and educational materials development components of the project. During the visit it was decided that the introduction of

LAM services would include LAM education in the clinics themselves as well as in the community outreach network attached to each clinic. The target populations for LAM education would be pregnant women or women within the first five months postpartum who are also new clients to family planning, or prior barrier method users, and whose family planning intention is to space a subsequent pregnancy.

The 14 uninitiated clinics were divided into two groups of seven clinics each, using a randomized block strategy. One of these groups would function as a control group during the first six months of the research (phase one), while the other group introduced the LAM program. In a second six-month phase, the control clinics will also introduce LAM. A separate pilot study regarding the feasibility of the introduction of well baby services (growth monitoring and immunizations) in conjunction with LAM will be conducted in the six clinics which have already introduced LAM. Assuming that operational and research problems can be resolved, these additional services will also be phased into the remaining clinics.

**Research:** After the field visit in January, the project research staff submitted drafts of data collection instruments for review and approval. LARFPC staff reviewed the instruments and forwarded comments to the research advisor at IRH, who provided written feedback to CEMOPLAF regarding the need for minor technical revisions. CEMOPLAF addressed these revisions and pretested the instruments in the field. The research staff also submitted a preliminary analysis plan which was forwarded to IRH. IRH requested no modifications to the plan.

**Training:** Direct service providers of LAM services are to be multimethod family planning counselors in the clinics, and the community educators in the outreach strategy. In June, these personnel completed an intensive training program regarding LAM and related breastfeeding support services as well as data collection procedures. LARFPC staff has been involved in the development of the training model and curriculum which was delivered by CEMOPLAF staff with a background in LAM and breastfeeding. Other clinic personnel have received on-site orientation to LAM in order to have an understanding of the method, the research goals, and their role in the program.

Regarding training for the well-baby services pilot study, the Ministry of Health has agreed to train CEMOPLAF's nursing assistants in immunization procedures. Physicians from the pilot clinics have been trained in growth monitoring and other well-baby services by Dr. Rosa Aguinaga, a Wellstart-trained pediatrician sensitive to the issues of interpreting growth curves of the breastfed baby. In exchange for these training services, CEMOPLAF has agreed to train Dr. Aguinaga's clinic staff in LAM. A similar collaboration which will introduce LAM into the Ministry's programs is also in process.

**Educational Materials:** The materials being developed under this project include: a large poster for teaching clients about LAM and the optimal breastfeeding practices; educational material for low and nonliterate populations; and material geared to the LAM and breastfeeding information needs of the pregnant client. CEMOPLAF plans to bring an artist to the site of focus groups for the nonliterate population so that the artist and the women can develop together images which effectively communicate the three LAM criteria.

LARFPC staff previewed concept drafts of the teaching poster and the low-literacy material and provided written feedback. Further development and field testing of the new materials will be delayed until the second phase of the LAM implementation because of heavy demands on project staff time in the development and implementation of the first phase trainings. In the meantime, the first phase LAM introduction will begin with the materials developed during the pilot project.

Additionally, a baseline survey instrument has been developed to assess existing knowledge about LAM and optimal breastfeeding practices among the client population, in order to later assess the impact of the new materials on client knowledge. Lucia Kramer, in-country representative of Population Communication Services, continues to be involved in the IEC components of this project.

LARFPC staff gave input to draft outlines of the new training curriculum for the family planning/LAM counselors as well as to drafts of supporting training materials, and the pre/post test. Although not a required "product" of this subagreement, with some encouragement and assistance to the CEMOPLAF staff, this curriculum could be formalized and distributed as a "model" of LAM training for the family planning worker.

Follow-up on LAM acceptors generated descriptive data regarding method continuation, satisfaction, and use of complementary methods of family planning. An implementation study with a concurrent formative/process analysis of the program components was employed in addition to the statistical analysis of service and follow-up data collected.

The current phase of this study consists of the expansion of LAM services to all 20 CEMOPLAF clinics with operations research to assess the acceptability of LAM an operational methods to ensure the timely introduction of complementary family planning during breastfeeding. The project will provide written guidance for other free standing family planning programs wishing to introduce LAM.

During the reporting period, the agreement for the project continuation was finalized and funded. Data collection/instrumentation and field manuals were developed and pilot tested and staff were trained in methods of LAM counseling and data collection.

Planned Activities: According to the workplan developed during the January field visit, the LAM introduction and data collection phase of this project was to have begun April 1, 1992. However, due to a series of unforeseen circumstances (difficulties in filling new positions, a public transportation strike, and conflict with the needs of Population Council sponsored study), the training was delayed until June, and the LAM introduction was scheduled to begin July 1, 1992. A field visit had been tentatively planned for June 1992. However, with the delay of the LAM introduction, a visit later in the summer or early fall would be more productive, and should be postponed accordingly. IRH staff have tentatively scheduled a visit in September 1992. As mentioned above, further intensive development and field testing of the new educational materials will be delayed until phase 2 of the LAM introduction, which, according to a modified timeline, would begin January 1, 1993.

Subsequent field visits will include a review of the methodology/results of the baseline survey which was conducted as a pre-assessment for a later impact evaluation of the new educational materials. A revised timeline for the development and field testing of the educational materials will be established since there had been a postponement of this component in order to focus on training and LAM implementation supervision.

A methodology/protocol to study the cost-effectiveness component of the LAM intervention still needs to be developed. The following components require review:

- records/procedures for the well-baby pilot project;
- verification that CEMOPLAF's client medical records have been modified (to reflect appropriate breastfeeding definitions, etc.);

- transition mechanisms to follow the pregnant client who has indicated a LAM preference after she gives birth.

Actual provision of LAM services in clinics will be initiated in July 1992.

(4) Georgetown University Clinical Trial of LAM

It is important that family planning methods offered in LDCs also be formally tested in the United States. In addition, the use of LAM at Georgetown will enhance IRH's ability to serve as a technical resource in this area. Accordingly, a clinical trial of the introduction of LAM among Georgetown patients is planned.

Planned Activities: A protocol for the study will be developed and reviewed, and institutional arrangements will be initiated for the implementation of the study.

(5) Projects in Preparation

New projects related to goals and strategies for completing work from the previous cooperative agreement need to be accomplished during the next five years. Institute staff are exploring opportunities for field projects in Africa and Asia.

During this reporting period, a planned trip to Indonesia was postponed and eventually cancelled due to other USAID/Jakarta priorities. No further activity can be planned there at this time.

Division staff traveled to Jordan to conduct an evaluation of the Save the Children child survival project and made preliminary contacts for an IRH Breastfeeding Project.

A consultant attended a three-day workshop in Mexico on Educational Materials for the Mexican Baby Friendly Hospital Initiative. Division staff are completing two educational modules: "Breastfeeding and Fertility" and "Breastfeeding Working Women," which will be incorporated into the training curriculum for health care professionals at Baby Friendly Hospitals throughout Mexico.

Planned Activities: During the next reporting period, project development visits are planned to several sites in Africa (Morocco, Egypt, Rwanda), to Jordan, and possibly to India and Bolivia. Further activities in Mexico are under discussion.

(6) Symposia/Conferences

Several projects have been completed and others are nearing completion. It is appropriate at this juncture to bring together IRH and other experiences in LAM to assess the state of the art and to receive input for future planning. The modest acceptance of LAM by the international family planning community must be addressed.

Planned Activities: A meeting will be developed which will serve as a Division TAG for future strategic planning, review of the current workplan, and assessment of an evaluation strategy. In addition a major symposium/working session may be coordinated with WHO and FHI plans to have meetings on the Multicenter Lactational Amenorrhea Study and Post Bellagio Results, respectively.

**b. LAM: Education for Health Professionals and Policy Makers**

**(1) Guidelines for Breastfeeding in Family Planning and Child Survival Programs**

The primary purpose of the Guidelines is to assist family planning and child survival program planners in formulating and implementing a breastfeeding component within their programs. Recommended breastfeeding behaviors for optimal child survival and child spacing are outlined, and guidelines for the use of LAM for child spacing and the introduction of complementary family planning methods during breastfeeding are provided. An outline of considerations for program change is also presented, with the intention that it be adapted or modified, depending on the specific needs, interests, and resources of individual programs and local settings.

Approximately 3,200 English, 2,400 French, and 5,300 Spanish copies of this publication have been distributed worldwide since the document's first printing. In addition, the Guidelines have been translated into Bahasa Indonesia and Portuguese. The Guidelines were distributed at four major conferences during this reporting period: The IFFLP LAM Experts Meeting and Natural Family Planning and Family Life Education Workshop for Pacific Island Nations in Sydney, Australia; the Annual National Council for International Health Conference in Washington, D.C.; the Wellstart Latin American Seminar on Breastfeeding in Oaxaca, Mexico; and the Workshop on Family Planning During Breastfeeding in Tegucigalpa, Honduras.

JHPIEGO continues to provide the guidelines as one of the documents in their standard information packet and have continued to receive multiple copies of the document for this use. The Institute Resource Center has continued to respond to regular requests for this document.

Planned Activities: Dissemination of the 1992 revised version of the Guidelines will continue until current supplies are exhausted; in addition, IRH is doing a major update and revision of this publication (see next item).

**(a) Update of the Guidelines for Breastfeeding in Family Planning and Child Survival Programs**

IRH is proceeding to update the Guidelines to reflect the state of the art in LAM information and to address a wider audience. During this reporting period, a consultant was identified to perform this task. The update will include definitions and up-to-date research findings, and will incorporate guidelines for working women who wish to breastfeed. It is now envisioned that the guidelines will be published in three versions aimed at different audiences: policy maker/decision maker, health care worker/provider, and mother (breastfeeding woman)/LAM user.

The update is still in the planning stages and a consultant is reviewing the document to make recommendations on how to proceed with a revision to best suit the needs of the intended audience.

Planned Activities: During the next reporting period, the Breastfeeding Division will work with the consultant to complete the necessary changes, update, pretest, review, and print the Guidelines in English, French, and Spanish.

(b) Working Women Guidelines: Assisting Working Women Toward Optimal Breastfeeding

This booklet addresses the special needs of women who, due to work or other obligations, are frequently separated from their infants, yet desire to breastfeed in a manner which is optimal for the health of their infants and which contributes to lactational infertility. The booklet was originally conceptualized as the companion piece to Guidelines for Breastfeeding in Family Planning and Child Survival Programs and was developed, with input from LARFPC, for health care program planners and health professionals/workers to aid in

- Increasing awareness of the options available to breastfeeding working women, thereby encouraging the development of programs that address the lactation information and support needs of working women who wish to breastfeed, and
- Providing guidance for the health professional or breastfeeding counselor to assist the individual woman to identify and incorporate strategies to lengthen the duration of optimal breastfeeding for child health and child spacing in accordance with the realities of the woman's life circumstances.

The document is being revised at Georgetown to reflect the concerns of reviewers, and will be published in its present form as an "Institute Occasional Paper."

Planned Activities: During the next reporting period, sections of the Working Women Guidelines will be incorporated into the new three-audience versions of the Guidelines for Breastfeeding in Family Planning and Child Survival Programs (see III.B.1.b.1.).

(2) Other Publications/Papers

Institute staff continue to disseminate information on LAM through presentations (see listing at the end of this report) and publications. In addition to final reports on projects, Breastfeeding Division staff attempt, in-house, and encourage contractors to produce additional articles for publication. As noted above, several articles on the results from the Chile and Honduras projects will be published in various journals and additional papers on more general topics have been requested by American Family Physician, the Journal of Human Lactation, and Avances. Papers and poster sessions on LAM have been accepted for presentation at NCIH, ISRHML, and APHA meetings. A total of nine submissions were made this period. Other papers are being prepared as Institute Occasional Papers.

Planned Activities: Breastfeeding Division staff plan to continue to submit four to ten papers, abstracts, and chapters for publication over each reporting period.

(3) Support to Professional Organizations

IRH supports acceptance of LAM through participation in medical and professional society meetings and other high-level fora, and by provision of requested assistance to professional organizations.

During this reporting period, IRH staff provided presentations to a number of groups on LAM, including the American College of Preventive Medicine, subcommittees of APHA, and a roundtable at NCIH, as well as at local and regional LLI meetings for physicians and nurses.

Planned Activities: In addition to continuing this series of activities, including two invited presentations at the LLI Physicians Seminar in July and two roundtables and support with SNE/INED meeting on infant feeding, IRH staff plans to create a subagreement with ACNM in support of these activities (see section on LAM in

Nurse-Midwifery, below) and will develop a panel for presentation at the IPPF 40th Anniversary International meeting in Delhi, India in October. LAM will also be presented at the SAC meeting in Barcelona in October and at several panel presentations at APHA in November in Washington, DC.

(a) Guatemala: LAM in LLLI

In Guatemala, the Institute has been working with La Leche League International (LLLI), on a "Breastfeeding and Natural Child Spacing Project." The original twelve-month training intervention focused on introducing the fertility aspects of breastfeeding into that country's already significant breastfeeding activity. The overall project encompasses three distinct levels of non-hospital based training activities designed to give adequate information to health professionals, community health and family planning workers, and mothers living in marginal urban neighborhoods, about the relationship between breastfeeding and natural child spacing. Through coordination with the National Breastfeeding Commission in all of its activities, this project is creating both policy and behavioral changes.

During the first phase, LLLI staff planned and executed a two-day national conference on breastfeeding and child spacing (co-sponsored by INCAP and the Guatemalan National Commission for the Promotion of Breastfeeding); organized several training workshops (with health related PVOs--AGROSALUD, CARE, and PAMI); evaluated and documented the training strategies developed for both the national conference and training workshops; and developed and field tested context specific, culturally appropriate training materials for counseling mothers in the relationship between breastfeeding and natural child spacing.

In May 1991, the project held a conference entitled "Los Ultimos Descrubimientos en Relación a la Excepcionalidad de la Lactancia Materna: Implicaciones y Aplicaciones." This conference, co-sponsored by INCAP, the Guatemalan National Commission for the Promotion of Breastfeeding, and IRH, included a one-day invitational conference for medical professionals and program planners; a half-day symposium open to the general medical community; and a curriculum development workshop for representatives of the local universities.

The 18-month extension project, which was signed in November 1991, builds on the accomplishments of the original project and will stimulate the expansion of activities regionally. The specific objectives of Phase II of the project are as follows:

- Maintain a designated liaison person to ensure inclusion of LAM in each of six breastfeeding workshops planned for NGOs and government health institutions under the currently funded Child Survival Extension Project as well as to help develop conference proceedings and training workshops;
- Develop and disseminate a book of relevant articles based on conference proceedings of the National Conference on Breastfeeding and Natural Child Spacing, which was held in May 1991;
- Plan and execute a LAM component in Regional La Leche League training workshops;
- Develop subsequent project extension proposals for short-term technical assistance on LAM to five to seven countries who participate in the November 1992 training workshop.

The IRH consultant made one trip to Guatemala in March 1992 to monitor activities under the extension project and especially to begin work on the conference proceedings.

**Planned Activities:** The IRH consultant to this project will return to Guatemala during the next reporting period to monitor ongoing activities and continue coordination of training workshops. In addition, the consultant will continue coordination of the proceedings of the 1991 conference and the preparation for the November 1992 regional conference.

(b) **LAM in Nurse-Midwifery**

The American College of Nurse-Midwives (ACNM) Special Projects Section currently receives funding for strengthening nurse-midwifery training and family planning programming worldwide. This group specializes in curriculum and training development and has developed training modules on several topics relevant to postpartum care. During this reporting period, a workplan for a subagreement was negotiated to incorporate LAM into ACNM curricula.

**Planned Activities:** IRH plans to initiate a three and a half year subagreement with ACNM to develop a LAM-based curricula and to incorporate LAM into all current nurse-midwifery programming within their purview.

(4) **Audiovisuals**

User-friendly slide sets and videotapes on LAM in at least three languages will assist the Division in improving dissemination of LAM and enable more personnel to adequately present this issue.

One hour-long slide set with a script exists in English and Spanish, focusing on LAM. The script for this set has been translated into French, but the slides are not yet available. Discussion has begun about a LAM videotape, but conceptualization has been delayed until the next reporting period, when Division staff will meet potential producers.

**Planned Activities:** During the next reporting period, Division staff will meet with producers to discuss development of the LAM video. English, French, and Spanish slide sets will be developed for standard 30-minute and 15-minute presentations. The long slide set will be refined and formalized for use by Division staff as well as for second-level use by other Cooperating Agencies. In addition, Division staff plan to develop a "simplified LAM" slide set.

c. **LAM: Technical Assistance**

(1) **Technical Assistance to Cooperating Agencies**

The Breastfeeding Division has designed an organized program of technical assistance that includes presentations and workshops with selected Cooperating Agencies and a needs assessment and materials for a broader group. This approach was pretested in 1990 with a presentation at JSI for Enterprise, MotherCare, and other staff. It resulted in a second-level presentation by personnel in these projects.

The first technical presentation in the newly organized series was given in December 1991 at CEDPA (described below).

During the reporting period, plans were made with several CAs to carry out presentations early in the next reporting period due to travel schedules of IRH and CA staff.

Institute staff continue to be actively involved in working groups with other Cooperating Agencies, including the Working Group on Perinatal Family Planning

Education and Counseling Training and the Working Group on the Family Planning Training Materials Database.

In addition, Institute staff continue to review Cooperating Agencies' breastfeeding materials and regularly review articles for peer reviewed journals. In fact, this relationship with CAs has been formalized in a June 26, 1992, letter to CAs from Duff Gillespie, noting the recent research/activities in LAM, the contributions to the field of IRH and FHI, and the importance of IRH review of all materials developed by CAs and Missions relating to breastfeeding, family planning, and LAM.

(a) CEDPA

On December 12, 1991, all Breastfeeding Division staff met with CEDPA staff to provide a three-hour presentation on IRH, the Breastfeeding Division, and LAM.

The last hour of the presentation was spent discussing CEDPA's programmatic and research needs and interests.

Following this technical presentation, individual Division staff met with interested CEDPA staff to refine project ideas. CEDPA staff also contacted Institute staff with requests for additional publications and with questions about specific materials development (such as research protocols and slide sets).

Planned Activities: During the next reporting period, IRH staff will continue to correspond with CEDPA to discuss specific project ideas and to begin to plan/implement one or two small technical assistance projects. Specifically, the IRH Breastfeeding Division Senior Associate for Research is assisting CEDPA staff to refine ideas for a LAM component of a project in India.

Project development discussions have been conducted with CEDPA's evaluation director with the aim of developing a LAM introduction project with operations research in one of CEDPA's projects in India. IRH would participate through materials development and technical assistance for programming and operations research.

(b) Others

Institute staff are also providing technical assistance to other CAs, as needed and requested.

Planned Activities: During the next reporting period, the Division plans to provide three more technical presentations to three CAs, and to follow up on each presentation provided.

(2) Technical Assistance to Missions

IRH Breastfeeding Division staff provide a variety of technical assistance to Missions upon request, to identify needs, existing LDC resources/materials, and worthwhile activities, under all three Division program areas. During this reporting period, Institute staff replied to Mission responses to the cable sent to USAID Missions by A.I.D./W informing them about the capabilities of the Institute, especially under its new and expanded mandate. Positive responses were received, either for materials, further information, or technical assistance, from Bolivia, Dominican Republic, El Salvador, Morocco, Rwanda, and Zimbabwe.

Planned Activities: Planned technical assistance during the next reporting period includes Bolivia, Haiti (depending on political climate), Jordan, Mexico, Morocco,

and Rwanda. Project point persons for each of these countries will coordinate visits and project plans with the Senior Associate for Breastfeeding Field Projects.

(3) Technical Assistance to International Donors

IRH Breastfeeding Division staff continue to provide LAM-related technical assistance to international donors. Specifically, Breastfeeding Division staff continue to participate in WHO, UNICEF, UNFPA, World Bank, and other meetings related to MCH issues so that IRH may include LAM on the agendas.

Responses from UNFPA have been increasingly positive towards the role of breastfeeding in pregnancy delay. IPPF literature is supportive of the three parameters of LAM although their policy continues to negate its usefulness. Breastfeeding Division staff met with both of these organizations during the reporting period.

The World Bank is planning to include LAM in its next publication on available family planning methods. In spite of Breastfeeding Division staff work with World Bank staff to ensure that positive messages about LAM were conveyed, the final document as seen in draft includes technically incorrect statements on LAM. This was brought to the attention of the A.I.D./POP/Research Division.

Planned Activities: IRH staff plan to continue their efforts, specifically with UNFPA, IPPF, and the World Bank to enhance acceptance of LAM. A brief White Paper will be prepared and circulated. Also, a plan for improved dialogue will be proposed.

(4) Technical Assistance to Other Programs

(a) Recife, Brazil

Under the INOPAL/CEMICAMP/IMIP operations research project, "Evaluation of a New Counseling Strategy in the Use of Lactational Amenorrhea Method to Prolong the Natural Postpartum Infertility," LARFPC provided assistance and support in the areas of training and educational materials development.

With technical support provided by LARFPC, a training module on breastfeeding and LAM was developed and incorporated into the CEMICAMP curriculum to train health professionals in family planning.

Two trainings were conducted at IMIP, in Recife, Brazil, during October 1991. One training was directed toward physicians and nurses and the other was directed toward auxiliary and clerk personnel working at IMIP. The trainings were successful, participants knowledge on LAM and counseling techniques was expanded, and an effective network was developed.

The following breastfeeding and LAM educational materials were developed, field tested, reviewed, and printed:

- a promotional flyer on breastfeeding and LAM to be handed to all patients during the family planning orientation
- a simple LAM guide the size of a vaccination card, to be handed to breastfeeding women using LAM
- three additional pages on optimal breastfeeding techniques and LAM to add to the flipchart on contraception used at IMIP

These materials have been utilized during client educational sessions and distributed to patients at IMIP as part of the project.

Planned Activities: CEMICAMP has fulfilled their activities under the original letter of agreement. Future collaboration will be subject to an extension of the letter of agreement.

## **2. BF and Fertility: Optimal Breastfeeding for its Fertility Impact**

Activities are designed to create support for optimal breastfeeding for its fertility impact on populations. This support includes research, policy development, education, and technical assistance designed to address issues that may clarify the knowledge in this area and lead to increased acceptance of optimal breastfeeding in general, and optimal breastfeeding for its fertility impact specifically.

### **a. BF and Fertility: Research and Pilots**

#### **(1) University of California at Davis: Effect of Introducing Complementary Foods on Breastmilk Intake and Maternal Fertility in Honduras**

This project is designed to provide key information regarding the optimal timing of complementary feeding of breastfed infants. The World Health Organization currently recommends that complementary foods be given to infants between four and six months of age, but this message is criticized as being too vague, and some have argued that in developing country populations the risks of beginning foods before six months outweigh the potential benefits. A key unknown in this debate is whether complementary foods before six months actually augment total energy intake or merely displace breastmilk. The specific aims of this project are to (1) examine the effects on infant breastmilk and total nutrient intake of introducing complementary foods at 16 weeks versus continued exclusive breastfeeding until 26 weeks; and (2) determine if the duration of maternal postpartum amenorrhea is affected by the timing of the introduction of solid foods.

The Institute funded a pilot study for this project in 1991 and is now providing partial support for a study involving approximately 150 breastfeeding mothers in Honduras.

Co-funders of the project are the Thrasher Research Fund, the WHO Diarrheal Disease Control Programme, and UNICEF/Honduras. Participating mothers are recruited from women exclusively breastfeeding their infants at four months of age and are randomly assigned to one of three study groups: (1) control, i.e., continue exclusive breastfeeding until 26 weeks; (2) introduction of complementary foods at 16 weeks, with ad libitum nursing; and (3) introduction of complementary foods at 16 weeks with maintenance of nursing frequency. To minimize family disruption caused by the milk intake measurements, only primiparous mothers who are not employed outside the home are recruited. Pre-prepared complementary foods consisting of locally familiar fruits, vegetables, and rice and oat cereals with and without egg yolk are provided in jars to groups 2 and 3.

Prior to intervention, all subjects are visited in their homes at 1, 2, 6, 10, and 14 weeks postpartum to provide guidance in maintaining exclusive breastfeeding and to collect anthropometric and morbidity data. Infant intake and breastmilk composition are measured by 48-hour test weighing and 24-hour milk sampling in a central facility at weeks 15-16 (prior to beginning complementary foods in groups 2 and 3), weeks 20-21, and weeks 25-26. During this period (16 to 26 weeks) home visits are made weekly to collect anthropometric and morbidity data and check on compliance. At 19 and 24 weeks, 12-hour home observations including feeding

patterns are conducted and at 25-26 weeks, infant blood samples are collected for assessment of iron and zinc status. After 26 weeks, subjects are visited monthly to monitor infant growth (to 12 months) and determine the duration of maternal amenorrhea.

Analysis of co-variance will be used to compare outcomes among groups. The results of this study will provide guidance to policy makers concerned with infant health in developing countries. If the study shows that breastmilk is displaced when solid foods are given, and there is no net increase in energy intake, this will provide strong evidence for modifications to the WHO recommendation for complementary feeding, particularly if maternal fertility is also affected.

The modified subagreement for Phase II funding was initiated on January 1, 1992, and the first quarterly technical report was received on April 3, 1992.

During the first reporting period, data were collected for the first round of subjects for up to five months of age. Results for this first round were similar to those found in the pilot study, that is, there was no net increase in estimated total energy intake at five months relative to controls, as hypothesized. In addition, the second round of subjects were recruited into the study.

Planned Activities: The study will continue as planned during the next reporting period.

(2) Other Symposium Preparation

(a) Neuroendocrine/ICMER

A symposium on the Neuroendocrine Basis of Lactational Infertility was held by ICIMER with co-sponsorship from WHO, FHI, IRH and other organizations and individuals. The meeting, held on November 24-26, 1991, was attended by most of the major actors in this area of research. Discussion was both broad ranging and comprehensive on specific topics.

The conclusions of the meeting were that specific individuals, including Drs. Johannes Veldhuis, Soledad Diaz, and Alan McNeilly, would take responsibility to develop specific research agendas to answer questions that remain. In addition, a review article will be prepared for publication in an appropriate journal to stimulate interest and response. During this reporting period a letter of agreement was written between the Institute and ICIMER to support these follow-up activities. ICIMER signature is pending.

Planned Activities: The letter of agreement will be signed and activities initiated to ensure dissemination of discussion highlights and hopefully to stimulate research interest.

(b) Other

In addition to the LAM Symposium discussed above in section 1.A.6., policy dialogue must be enhanced, and panels and symposia may be a helpful technique in stimulating project and policy change.

Planned Activities: Institute staff will begin to conceptualize a series of research based dialogues through panels or symposia to address issues that are creating obstacles to acceptance of optimal breastfeeding and its fertility impact.

(3) GU Clinical Studies

(a) Breastmilk Storage: Bacteriology and Stability of the Lipids and Proteins under Conditions of Non-refrigeration

This project was designed to assess breastmilk storage under "normal" conditions ("clean" containers of various composition and temperatures). The ability to express and store milk for later feeding when the mother is away from the infant can enable women who must return to work during the first six months postpartum to continue breastfeeding their infants. This study will assess the safety and nutritional value of human milk when stored under conditions which prevail in developing countries. The scope of work for Phase II of the project is a continuation of the first phase and consists of further assays of the constancy of fats, enzymes, and proteins in human milk samples stored for various time period up to 24 hours and at different temperatures. The subagreement for Phase II was completed by IRH staff in February and the processing through IRH/Georgetown administrative channels will allow the effective date of the new contract to be July 1, 1992.

Planned Activities: Work will begin again on July 1.

(b) Bone Density in Response to Breastfeeding and Weaning

Recent research findings reflect the possibility that the weaning period is a time of rapid redeposition of calcium in maternal bone. There is sound endocrinological explanation for this possibility. Since osteoporosis is a concern in maternal health, it is important to verify the impact of breastfeeding on bone density.

Georgetown University faculty have reviewed the results of published studies and have begun to develop a protocol for a preliminary retrospective study which will permit pretesting of data collection instruments.

Planned Activities: The protocol will be submitted for IRB approval and pilot testing will begin. Work will then begin concurrently on this protocol and on Institutional arrangements for complementary longitudinal research.

(c) Colostrum as an Anti-infective Agent

There is much interest in the role of colostrum as an anti-infective agent for use as a prophylactic and curative agent for the neonate among international and A.I.D. breastfeeding proponents. While colostrum is used in Third World settings for postpartum eye wash and treatment of stump infections, there is no laboratory or clinical basis for supporting these activities. A preliminary plan for *in vitro* research was designed in conjunction with Department faculty and a resident, Dr. Sanjeeta Pati.

Planned Activities: Laboratory studies of effectiveness of colostrum against gonorrhea, chlamydia, and staphylococci are expected to begin during the next project period.

(4) Data Analysis/Surveys

(a) DHS/IRD/Pittsburgh

Under the last project, DHS carried out a series of analyses in concert with the University of Pittsburgh. The final report was received and the contract with DHS was closed.

Planned Activities: The final papers produced by DHS and Country Profiles will be reviewed in preparation for publication. A paper, co-authored by DHS and IRH staff, entitled "The Influence of Food Supplements on Duration of Lactational Amenorrhea," will be presented at the August meeting of the International Union of Nutritional Sciences and the International Society for Research on Human Milk and Lactation.

(b) Field Pilots on Indicators/Surveillance

Indicators have been developed based on the definitions for patterns of breastfeeding. It will be necessary to test or pretest the outcomes of the indicators development to establish a surveillance approach to assess changes in the fertility impact of breastfeeding. One possible site for this study is Thailand. This task was not funded in this year's workplan. It will be necessary to coordinate this activity with WHO.

Planned Activities: It is desirable that at least one field project be developed in the next 6-12 months that will address this area.

b. BF and Fertility: Education of Health Professionals and Policy Makers

(1) Textbooks

(a) Helping Mothers to Breastfeed

This text, which has been translated into seven languages and widely distributed, especially in Africa, has been revised and reprinted. Based on discussions held with IBFAN in August 1989, the Institute was approached by the author, Dr. Felicity Savage, to support this effort. Discussion included: (1) support for rewriting the section on breastfeeding and child spacing to include LAM; (2) including reference to this rewrite in the preface or foreword; (3) support for the initial printing; and (4) distribution of 200+ copies to key persons in Africa with a joint Institute-AMREF cover letter. Institute staff reviewed the final proofs of the book to ensure accuracy of the breastfeeding and fertility aspects of the text. This volume will also serve as a reference text for the IRH curriculum and will be widely distributed by WHO, TALC, ILCA, and other international organizations.

The first IRH subagreement with AMREF has been completed. Under this first subagreement, the breastfeeding and child spacing section of the text was rewritten to include LAM and the textbook was printed. The amount of funding was insufficient to carry out distribution of the book in Africa. The second subagreement, which provides 2,000 copies of the text to IRH and allows for 500 copies of the book to be distributed to key persons in Africa and in international organizations, was signed in June 1992. AMREF/Africa, the publisher, will assist in the identification of these persons and will carry out the distribution. The joint AMREF-IRH letter of transmittal was drafted.

Planned Activities: During the next reporting period, AMREF will distribute the textbook under a joint AMREF-IRH letter, after a mailing list has been agreed upon by both organizations.

(b) Lactancia Materna

This draft publication was developed in conjunction with a major breastfeeding support and research program in Chile and was disseminated at the Institute-

sponsored conference on "Advances in Breastfeeding for Health and Child Spacing," held in Chile in October 1990. (See I.A.1.).

The publication is undergoing review and expansion to include a brief proceedings of the meeting. Co-funding of the proceedings has been provided by PAHO. This document will serve as a reference text for the Lactation Education curriculum and will be widely distributed, as it is designed to fill a gap in health professional level materials presently available in Spanish that have been developed in the region.

Planned Activities: During the next reporting period, the revised text will be reviewed in Chile and the document translated into English in Washington, DC. Final IRH and A.I.D. review and printing are planned thereafter.

(c) Text Review - World Health Organization (WHO)

The World Health Organization, in collaboration with the Infant Baby Food Action Network (IBFAN) is in the process of evaluating the breastfeeding content of the most widely used textbooks dealing with infant nutrition. The review concerns texts in English, French, and Spanish. Both pediatric and obstetrics/gynecological textbooks are being examined in terms of their breastfeeding content generally and fertility aspects of breastfeeding in particular.

Major texts have been identified, and correspondence initiated with the publishers and editors of these books. Based on a structured and detailed critique of the texts, outlines are being prepared as to the appropriate breastfeeding content of pediatric and obstetric texts. IRH has developed a letter of agreement with the WHO/Geneva consultant in coordination with WHO to co-fund these activities.

Planned Activities: Follow-up to the original text review will include preparation of letters to editors, scientific follow-up with responsible authors, and ongoing communication. This task will be carried out under the letter of agreement with Genevieve Courant in coordination with WHO. Activity during this reporting period will be limited due to consultant availability.

(2) Curricula

The Institute has developed curricula for training different levels of health and health-related personnel in breastfeeding support. All curricula have been developed in the context of an action program plan, designed to result in the immediate application of breastfeeding support activities. These curricular outlines include those for training-of-trainers (TOT), for educators of field health promoters, for program leadership, for hospital-based breastfeeding support (developed by a Wellstart graduate), and for training family planning care providers.

Planned Activities: The IRH Resource Center has been asked to collate these curricula. A plan of action will be developed based on perceived need and status of existing documents. Requests for reprinting Lactation Education and translating it into French will be considered and brought to the attention of the new Wellstart Expanded Promotion of Breastfeeding Project.

(a) Lactation Education for Health Professionals - Case Studies

Lactation Education for Health Professionals, developed with PAHO, was developed in conjunction with a meeting of Latin American nursing educators. It includes a training module, teaching guidelines, and supporting articles which cover breastfeeding concepts--including fertility aspects--and educational concepts important to implementation of the curriculum. It is addressed to faculties of

medicine, nursing, and other health professional schools. Prepared by Institute staff, it was published by the Pan American Health Organization, and distributed in English and Spanish by both organizations.

This is one of several IRH projects that has benefitted from the collaboration of the Institute with the Pan American Health Organization and from the contribution of nursing, medical, and other leaders from Central and South American universities and health services and others around the world.

Phase 1, the development of a core lactation curricular module for the teaching of breastfeeding, was completed and published in 1991. Phase 2 of this project consisted of testing the breastfeeding module. To achieve this goal, Institute staff provided technical assistance and support to health professionals during the testing process. Evaluation of the testing process included pre-post tests for students and mothers taught by students. The case studies from the sites where the curriculum was tested in university and hospital settings (Chile, Colombia, Costa Rica, Ecuador, Honduras, Mexico, and Peru) were never collated nor analyzed. During this reporting period a letter of agreement was developed with Rosalia Rodriguez-Garcia to complete this work.

Planned Activities: A standardized format for full presentation of the case studies will be developed and approved by IRH and each study will be rewritten according to that format. Once standard points of analysis for comparison of the individual studies have been established, the studies will be compared and analyzed, focusing on facilitating factors and barriers, identifying lessons learned, and making general recommendations. The letter of agreement allows nine months for completion of these tasks.

(b) Lactation Education for Health Professionals - Annotated Curricular Outline

The Breastfeeding Division plans to annotate the curricular outline from the book Lactation Education for Health Professionals through a subagreement with ACNM. Many of the groups with whom we collaborate have expressed a need for reference materials so that the elements of the outline may be taught based on correct and up-to-date information. The volume does not include the detail necessary for accurate educational planning.

Planned Activities: The subagreement with ACNM will be completed and signed during the next few months and work will begin on this task.

(3) Other Texts

The IRH has conducted a series of workshops and panels, as well as developed articles, to address controversial issues that become obstacles to the acceptance of optimal breastfeeding.

Planned Activities: In light of the new Wellstart project, all texts will be reviewed for referral/collaboration. A plan of action on this issue will be developed.

(a) Breastfeeding: Protecting a Natural Resource

This document is a glossy and informative presentation of breastfeeding and its benefits that was developed with IMPACT/PRB. The booklet is targeted to policy makers, health professionals, and breastfeeding advocates, and is available in English, French, and Spanish.

This booklet has been widely disseminated worldwide. Since it was published, approximately 10,000 English, 6,200 French, and 7,700 Spanish copies have been distributed to groups such as A.I.D and A.I.D. Cooperating Agencies, USAID Missions, Schools of Public Health, WHO, UNICEF, UNFPA, JHPIEGO, SIDA, AED, La Leche League International, Wellstart, PAHO, and many others. During this reporting period, 800 English, 200 French, and 700 Spanish copies were distributed. The booklet was distributed at four major conferences during this reporting period: The IFFLP LAM Experts Meeting and Natural Family Planning and Family Life Education Workshop for Pacific Island Nations in Sydney, Australia; the Annual National Council for International Health Conference in Washington, DC; the Wellstart Latin American Seminar on Breastfeeding in Oaxaca, Mexico; and the Workshop on Family Planning During Breastfeeding in Tegucigalpa, Honduras. The booklet has also been translated into Nepali. The Resource Center responds to frequent requests for the booklet in all languages.

Planned Activities: Dissemination of this document will continue, generally in a project or policy related context to maximize its usefulness. Consideration will be given to reprinting and/or updating the document.

(b) Breastfeeding Division Fact Sheet

This one-page, front-and-back document describes the Institute's focus on breastfeeding for child spacing and LAM, and the support that the Breastfeeding Division can provide to family planning and child survival programs in developing countries.

The original Fact Sheet was disseminated widely worldwide. The updated Fact Sheet has been available since October 1991 and distribution has begun, although to date it is available only in English. Translation into French and Spanish is proceeding.

Planned Activities: The French and Spanish translations will be finalized in July 1992. Since IRH plans to update the Fact Sheet on at least a yearly basis, it is expected that an update will take place at the end of the next reporting period. Ideally an overall Institute Fact Sheet will also be developed.

(c) Journal Of Tropical Pediatrics Supplement - "Breastfeeding and Borderline Malnutrition in Women"

IRH sponsored a panel entitled "Breastfeeding and Borderline Malnutrition in Women" at the 17th Annual National Council For International Health Meeting in Washington, DC, in June 1990. The focus of this panel was on lactation in situations of poor maternal nutritional status. Policy recommendations to improve the likelihood of successful lactation, from the point of view of the mother-infant dyad, were discussed.

The interest generated by this panel was overwhelming, reflecting the great need for information on the effects of breastfeeding not only on infant health and nutrition, but also on the mother herself. Therefore, IRH decided to publish the complete panel presentation where it would be widely available to a broad audience in the international health field. This volume of the Journal of Tropical Pediatrics provides valuable guidance for program personnel and researchers alike. To date, IRH has distributed approximately 250 copies of the document, and French and Spanish translations are underway.

**Planned Activities:** During the next reporting period, IRH will continue to distribute copies of the supplement as requests are received. The French and Spanish translations will be finalized in July 1992. The document has been requested specifically for distribution at the August IFFLP conference in Yaoundé, Cameroon.

(d) **WHO Proceedings: "Breastfeeding in the 1990s: The Technical Basis for Global Action"**

WHO supported IRH's preparation of these proceedings from the Technical Meeting leading to the Innocenti Declaration. The volume is designed to (1) inform and educate health decision makers concerning the technical issues in the protection, promotion, and support of breastfeeding; (2) update the state of the art for all concerned with breastfeeding; and (3) provide a proceedings of the Technical Meeting that was both a culmination of the five years of technical coordination of the Interagency Group for Action on Breastfeeding and a technical background for the Policy Makers Meeting in Innocenti, Italy, July 29-August 1, 1990. The technical papers in this volume bring positive aspects of breastfeeding to the attention of decision makers. The papers present breastfeeding as an essential part of child survival and development including child nutrition, control of diarrheal diseases, birth spacing, and mother's health and well being. Breastfeeding also has a measurable impact on decreasing infant mortality by five to seven million lives per year from what it potentially could be, and in general improves national levels of well being through economic and health savings. The publication will be available in English, French, and Spanish and may be published as a companion piece to The Physiological Basis of Breastfeeding, a very popular WHO publication.

IRH and WHO staff coordinated the preparation of the proceedings by reviewing and confirming references and reviewing galleys of the volume. During this reporting period, IRH staff refined some papers included in the volume and reviewed the "Blue Line" of the ready-for-print document. It was submitted and reviewed by Dr. Queenan and A.I.D.

**Planned Activities:** The document is expected to be published in August 1992.

(e) **Breastfeeding Saves Lives: The Impact of Breastfeeding on Infant Survival**

This monograph and a companion article to be submitted for peer review publication were prepared by the Center to Prevent Childhood Malnutrition (NURTURE) in conjunction with IRH as one of the Center's Policy Series Volumes. The booklet was created to illustrate the profound effect of optimal breastfeeding practices on infant health and child survival throughout the world. Noteworthy in this document is a page that presents a comparison of breastfeeding to other child survival interventions.

IRH received 100 copies of the monograph to distribute from NURTURE, which is now part of the new Wellstart project. During this reporting period, no major distribution took place. A reprinting of the publication is being considered; however, several changes must be made to the original version. The revised version will receive broader distribution.

**Planned Activities:** IRH will coordinate with the new Wellstart Expanded Promotion of Breastfeeding Project on this booklet.

(4) Audiovisuals

(a) Videotape: Breastfeeding: Protecting a Natural Resource

Originally, this fifteen-minute, nine-projector slide show was produced with A.I.D. Population, Health, and Nutrition funds for the WHO/UNICEF meeting "Breastfeeding in the 1990s: A Global Initiative," held July 30-August 1, 1990, in Florence, Italy, at the Innocenti Center. The slide show's primary intended audience was a group of approximately 150 ministers of health and other international policy makers as well as representatives of various donor and UN agencies.

The show depicts current knowledge and understanding of the importance of breastfeeding--not only for mothers and children, but for society as a whole. The show presents breastfeeding as a vital natural resource and highlights the many diverse benefits associated with its promotion and protection. It describes how breastfeeding lowers infant mortality and morbidity; provides excellent nutrition for infants and contributes to their growth and development; improves women's health; enhances child spacing; and provides economic benefits for families and nations. The show further emphasizes that policy makers and program planners have a primary role to play in determining the most appropriate actions to take to promote and support breastfeeding. Priorities for action are presented to the decision maker/viewer, emphasizing the importance of changing hospital and health care practices; improving information, education, and communication campaigns; supporting working women to breastfeed successfully; and building family, community, and political support for breastfeeding.

Following the meeting in Florence, numerous requests for copies of the slide show necessitated its transfer to video format for distribution to individual policy makers and various organizations working in international health. The Institute therefore produced the videotape of the slide show in French and Spanish with additional support from AED, PAHO, and Wellstart. In Indonesia, the video has been dubbed in Bahasa Indonesia. Distribution of the video to policy makers around the world is being accomplished through a variety of channels including A.I.D., WHO, UNICEF, PAHO, SIDA, and A.I.D. Cooperating Agencies such as AED and Wellstart.

The video has received recognition from colleagues at both WHO and UNICEF. They stress how timely and popular the video is among their field staff, with emphasis on the fact that the production quality lends additional respect and credibility to the subject matter. The A.I.D. Health Sector Council recognized the video as the best A.I.D.-produced health video of 1990. In addition, the video recently was recognized and won an honorable mention in the National Association of Government Communicators Gold Screen Award Competition.

To date, approximately 650 English, 200 French, and 900 Spanish versions of the video have been distributed worldwide. The Institute continues to receive requests for the videotape on a daily basis.

Planned Activities: During the next reporting period, IRH plans to edit the video to reflect the new Institute name and logo. Distribution will continue worldwide. The multi-image slide show also will be staged at the UNICEF International Pediatric Conference in Rio de Janeiro, Brazil.

(b) Slide Set

Institute staff are frequently asked to give presentations not only on LAM but on the fertility aspects of breastfeeding and general breastfeeding benefits. To be responsive to these requests, and requests from A.I.D. Cooperating Agencies for slide sets they can use in their programs, IRH has given considerable attention to the development of several types of slide sets.

In addition to the already existing one-hour slide set that focuses on LAM and the Guidelines for Breastfeeding in Family Planning and Child Survival Programs, and incorporating LAM into programs, IRH staff are conceptualizing two to three other sets. One set, which remains in draft form, is a lengthy (two- to three-hour) modular set which discusses the general benefits of breastfeeding, the physiology of lactation, complementary family planning methods, programmatic aspects of breastfeeding, and plans for action. The various modules can be added, subtracted, and modified to suit the needs of the various audiences.

In addition, IRH is discussing a 30-minute slide presentation as well as a 15- to 20-minute set. IRH staff are discussing these concepts with a slide set producer and with potential consultants.

Planned Activities: IRH still plans to identify a consultant to work on producing the two shorter slide sets. Plans are now to keep the draft modular set in house for revision.

(5) Other Projects

(a) Cusco

The field work aspects of this IEC project, Mass Media Demonstration Project for Breastfeeding Promotion have been completed. The two-year program focused on promoting breastfeeding for child spacing and child survival through a series of radio programs developed by Comunicación Andina. Twenty-five minute programs including breastfeeding messages and community health news were broadcast daily over a six-month period. The project enhanced the availability and quality of breastfeeding support services by establishing a small education center in the community, and by providing training and technical support in breastfeeding through training programs in other health service delivery groups. During the radio programs, women were referred and encouraged to use the Comunicación Andina breastfeeding education center. The center's staff referred women to the MOH service for family planning and other services.

This demonstration project applied qualitative (focus group interviews) and quantitative (survey) research techniques to determine whether a series of educational radio programs increase people's knowledge about breastfeeding and lead to the acceptance by the target population of optimal breastfeeding practices for child survival and child spacing. A pre-intervention survey of 250 mothers with children aged six months and younger was completed prior to broadcasting the radio programs. The survey provided baseline data on current breastfeeding beliefs, myths, and practices of the Quéchua-speaking population in the Cusco area. Program broadcasting has been completed, and was followed by a post-intervention survey. Project staff members have analyzed the pre-and post-intervention survey data, and the project ended in July 1991. Project staff submitted a draft final report to IRH/GU.

**Planned Activities:** A Peruvian local NGO will travel to Cusco in August/September 1992 to evaluate the project and to assist project staff in analyzing the data and writing a final report.

(b) **Jesuit Universities and Catholic Health Associations**

A meeting was held at Georgetown with the Secretary of the Association of Jesuit Universities of Latin America (AUSJAL) to discuss a seminar on LAM and the fertility aspects of breastfeeding. It was suggested that this seminar be held at the Javeriana University, in Bogotá, Columbia, and that, in addition to representatives from the Jesuit Universities, the Ecumenical Council for Latin America be invited to participate.

**Planned Activities:** IRH staff will visit in September the Javeriana University in Bogotá, Columbia, to plan the seminar for 1993.

(c) **Nomenclature/Indices**

A variety of activities have resulted from the original IRH work with IGAB on breastfeeding definitions. In addition to the several publications on the topic, we have been invited to participate in WHO meetings, as reviewers, and in other fora to present expertise in this area. During this reporting period IRH participated in a WHO meeting on this subject and prepared draft nomenclature for consideration by ILCA.

**Planned Activities:** IRH plans to continue to provide technical assistance to any group using the definitions in articles for publication or, as in the case of WHO and ILCA, in the development of indices and nomenclature.

c. **BF and Fertility: Technical Assistance**

(1) **Technical Assistance to Cooperating Agencies**

IRH continues to publish and disseminate scientifically sound articles as well as to provide technical assistance to Cooperating Agencies and their projects on the fertility aspects of breastfeeding. This assistance includes review of materials and peer review articles. Under this area, the Breastfeeding Division is emphasizing agency-level technical assistance for policy change, including continued information updates, visits to key organizations during country visits, provision of key documents and materials as requested, and other activities.

During this reporting period, Breastfeeding Division staff and the Resource Center responded to numerous requests for information on the fertility aspects of breastfeeding.

**Planned Activities:** This assistance will continue during the life of the project. During the next reporting period, in addition to IRH responding to requests as needed, several organizations will be targeted to receive specialized assistance on the fertility aspects of breastfeeding.

(2) **Technical Assistance to Missions**

As mentioned in section B.1.c., Institute staff responded to Mission responses to the cable sent by A.I.D./W which emphasizes the expanded mandate and capabilities of the project under its new funding agreement.

A Breastfeeding Division staff member traveled to Jordan to assist the Mission in evaluating the Save the Children child survival project for its demographic impact. While the project was set up to reduce infant and child mortality, the greater impact seems to have been on increasing breastfeeding and contraceptive use. While in country, the IRH representative provided a presentation on LAM to interested MOH staff and others. Jordan would be interested in further programming on LAM and has requested an additional IRH visit, during the next reporting period.

Planned Activities: It is hoped that the worldwide cable will continue to generate specific requests from Missions. Breastfeeding Division staff will participate in BIG Country Strategy Plans and will plan a series of visits for the coming year.

(3) Technical Assistance to International Donors

(a) WHO

- Simplified Methodology for Assessing Breastfeeding: In the early 1980s, WHO developed an assessment tool designed to identify fertility return in populations in order to advise family planning programs concerning the breastfeeding/family planning interface. This module has been tested in more than ten sites. However, events have surpassed the original goal; with the development of LAM, each individual may now assess the proper time for complementary family planning. WHO has asked IRH to jointly review the findings of the test sites and develop recommendations concerning module modification and its usefulness in the current understanding of the subject.

Planned Activities: During the next reporting period, IRH staff will begin to undertake this task.

- International Breastfeeding Collaborating Centre (WHO Collaborating Centre on Breastfeeding): Over the last four years, the Breastfeeding Division personnel have experienced increasing collaboration with and financial support from a variety of divisions within PAHO and WHO. In February 1991, IRH was asked to prepare an application for a unit, comprised of the Breastfeeding Division and selected other University faculty, to serve as a WHO Collaborating Centre. The application was developed under the title "International Breastfeeding Collaborating Centre," internally reviewed, and submitted. After a site visit from PAHO and further revisions in August 1991, the International Breastfeeding Collaborating Centre (IBCC) has been named a WHO Collaborating Centre on Breastfeeding. The IRH Breastfeeding Division's designation as the IBCC was officially announced at a reception at Georgetown following a March 9 press conference in the Leavey Center at Georgetown which announced the launch of the UNICEF Baby Friendly Hospital Initiative in the United States. The IBCC is based in the Breastfeeding Division of the IRH. Projects considered IBCC projects have included past and future work on the Code of Marketing of Infant Feeding Substitutes and all other general breastfeeding work carried out with WHO and PAHO.

Planned Activities: The IRH will be co-funding projects with WHO-supported IBCC projects (see sections B.2.c.3.a., B.2.b.3.d., and B.2.b.5.c., Simplified Methodology, WHO Technical Proceedings, Nomenclature/indices). There will be an organizational meeting of IBCC on the Georgetown campus.

- **PAHO:** IRH/PAHO interaction has been quite productive, resulting in at least four collaborative efforts (curriculum, regional planning, videos, Lactancia Materna).

**Planned Activities:** These efforts will be completed and additional collaborative efforts will be sought related to the IBCC mandate.

(b) Interagency Coordination

This coordination activity focuses on the fertility aspects of breastfeeding. The new Wellstart project will be taking on the IGAB role formerly played by IRH.

In October 1991, representatives of IRH, WHO/HRP, FHI, Population Council, and A.I.D. met at Georgetown University to discuss each organization's ongoing work and plan of action related to breastfeeding and fertility, to identify other agencies that should be involved in coordination efforts, and to develop a concrete plan of action for a working group that includes specific meetings and processes.

IRH staff are writing up the results from the October meeting between organizations involved in the fertility aspects of breastfeeding.

**Planned Activities:** During the next reporting period the results of the October meeting will be disseminated and the group will meet again. This working group is expected to continue through the life of the current IRH project agreement. It may coincide with adhoc review of strategy, policies, and/or projects.

(c) UNICEF

IRH has been an active partner in the WHO/UNICEF breastfeeding promotion efforts. The UNICEF efforts in the Baby Friendly Hospital Initiative (BFHI) and WABA have achieved special attention with a press conference held at Georgetown to launch the BFHI conception in the United States. The conference was moderated by the Breastfeeding Division Director and the panel included Mr. James Grant, Executive Director, UNICEF, Dr. Hu Ching Ling, Associate Director, WHO, Dr. Mohammad Akhter, D.C. Health Commissioner, and Ms. Vergie Hughes, Director, National Capital Lactation Center.

**Planned Activities:** In addition to ongoing work with WABA and the United States effort in BFHI, IRH will continue to emphasize optimal breastfeeding for its fertility impact at all international fora.

(4) Technical Assistance to Other Programs

(a) Mailing List

The Institute maintains a mailing list of approximately 3,000 names which is constantly growing. This list is divided in 25-30 categories under the major subheadings of breastfeeding, natural family planning, and administration. Under breastfeeding, the categories are based on attendance at meetings; professional interests; organizational affiliation; region of world; relationship to the Institute; and so forth. The list is cross-referenced by language and other categories in which names are included. This mailing list must be constantly updated and maintained to facilitate its use in-house and in coordination with other A.I.D. collaborating agencies to facilitate the distribution of their materials to the appropriate audiences and create linkages between the Institute and these other organizations.

Planned Activities: During the next reporting period, once the new computers are installed, the Resource Center Coordinator will enter the mailing list on the selected database and updating the list to reflect all correspondence received to date. It is hoped that, within six months, the mailing list can be shared with A.I.D. CAs. Due to personnel changes and the unavailability of computers, the Resource Center has been delayed in its efforts to computerize the mailing list. Presently, the Resource Center has hired new personnel who hope to have the mailing list developed and running so that it can be shared with A.I.D. CAs.

(b) Searches

The Resource Center of the Institute has maintained literature on NFP, there is a felt need in the Breastfeeding Division to have an ongoing update of the published literature available to the staff for both publication and technical assistance purposes.

Planned Activities: A subagreement will be developed or in-house capability will be developed to meet this need.

3. BF and NFP Interface

Activities under this area are collaborative with the NFP Division and are designed to enhance their efforts in introducing LAM into NFP and in improving guidelines for NFP use during lactation.

a. BF/NFP: Research and Pilots

The Breastfeeding Division, in conjunction with the NFP Division and IFFLP, has begun to discuss and formulate guidelines for LAM use in an NFP program and will test these guidelines in a project site or sites. Research will be conducted on NFP method introduction during breastfeeding and modification of rules for improved efficacy will continue.

Planned Activities: During the next reporting period, some of the project sites will be identified and discussed at the various IFFLP Zonal/Subzonal meetings and Breastfeeding/LAM Expert Meetings. It is planned that two sites will be identified per region.

b. BF/NFP: Education of Health Professionals and Policy Makers

(1) NFP Conference Proceedings: "Current Knowledge and New Strategies for the 1990s"

These conference proceedings are described in the Natural Family Planning Division section of this report. More than one-quarter of this supplement to AJOG was developed by Breastfeeding Division staff and most of this input specifically focuses on the LAM/NFP interface.

The section explores the use of natural family planning during breastfeeding and the operationalization of the research findings related to the breastfeeding/natural family planning interface. Worldwide, the vast majority of women breastfeed their infants--in many countries for several months. Studies show that women learning natural family planning during lactation, particularly those whose menses have returned, have an increased risk of unplanned pregnancy. Altered hormonal levels may make interpretation of the signs of fertility return (such as mucus) difficult during this time. LAM may be a useful adjunct to natural family planning training.

Specific papers from this session focus on biology and policy, observations from a prospective study of breastfeeding users of NFP, ultrasonic patterns of ovarian activity during breastfeeding, ovulation method during breastfeeding, efficacy of the symptothermal method of NFP in lactating women after the return of menses, and preliminary results of an intervention study in Santiago, Chile. Other papers prepared by Division staff cover the efficacy of NFP and LAM. The Division has received and responded to numerous requests for reprints.

In addition, translation of the LAM/NFP interface section into French and Spanish is proceeding. These translations will help support the Breastfeeding Division's efforts with IFFLP and other NFP programs.

Planned Activities: During the next reporting period, the Division expects to continue to respond to many requests for reprints of the conference. The proceedings will continue to serve as a basis for discussion in IFFLP Zonal conferences over the next 12 months, aiding in their refinement of policy on breastfeeding. The Division will play a major role in the Yaoundé zonal meeting in August.

(2) Other Materials

In addition to these proceedings, the Breastfeeding Division is developing, with IFFLP, materials concerning LAM for NFP programs. At the Zonal/Subzonal Meeting and LAM/NFP Experts Meeting in Sydney, Australia, participants focused on developing and refining implementation strategies and teaching guidelines which will continue to be refined at subsequent meetings.

Planned Activities: IRH staff will attend the meeting in Yaoundé, Cameroon, and later in Paraguay, to assist in working on these materials.

c. BE/NFP: Technical Assistance

(1) IFFLP: Policy/Guidelines/Testing

IRH's work with IFFLP focuses on developing an IFFLP breastfeeding promotion and LAM/NFP policy and strategy and to develop sets of method use guidelines for each NFP method that can be adopted by IFFLP's members and programs worldwide. These method protocols, guidelines, and training materials will be developed, field tested, translated, and disseminated.

To assist in accomplishing these activities, IFFLP has contracted with a consultant who is assisting the organization and its members, as well as its supported pilot projects, to develop breastfeeding and LAM supportive policies and strategies. This consultant is assisting with the development of the protocols mentioned above, as well as with the development of teaching materials and curricula at all levels for the introduction of these protocols into ongoing programs.

IRH Breastfeeding Division staff traveled to Sydney, Australia, in March 1992, to participate in and lead sessions at the IFFLP Breastfeeding and LAM Experts Meeting. In addition, IRH staff and the IFFLP Breastfeeding Consultant presented a LAM panel at the IFFLP Natural Family Planning and Family Life Education Workshop for Pacific Island Nations. Concurrent with the above meetings, the IFFLP Board and Zonal Council held meetings to discuss, among other topics, the IFFLP Policy on Breastfeeding, LAM, and the LAM/NFP Interface. The policy was passed by both the Board and the Zonal Council, and was endorsed by the participants in the Pacific Island Nations Workshop. The policy change is being

disseminated to all IFFLP members and zones for feedback and implementation and is expected to be adopted formally at the IFFLP Congress in 1994.

During the breastfeeding and LAM Experts Meeting, participants worked on drafting/refining IFFLP guidelines for teaching LAM and introducing NFP methods when LAM criteria are no longer met. Working groups further defined draft method protocols for the NFP Method interface with LAM according to ovulation method (OM), symptothermal method (STM) and modified mucus method (MMM). Toward the end of the meeting, participants focused on developing zonal and global strategies for the LAM/NFP interface. All participants emphasized the importance of culturally relevant, adaptable strategies.

After the Sydney meeting, IFFLP, the IFFLP Breastfeeding consultant, and IRH staff developed a breastfeeding/LAM reading list; and refinement of the teaching guidelines and training protocols have begun. This process will continue during the next reporting period as a result of the work accomplished at the Yaoundé meeting.

Planned Activities: Breastfeeding Division staff will travel to Yaoundé, Cameroon, to participate in the IFFLP Subzonal Meeting, and to conduct a four-day LAM/Breastfeeding/NFP Training Workshop. Refinement of the teaching guidelines and training protocols will continue.

## C. ADMINISTRATION/EVALUATION

### 1. Division Functional Support

- a. **Personnel:** During this reporting period, Miriam Labbok, MD, MPH, continued as Division Director and Kristin Cooney, MA, continued as Deputy Director. Virginia Laukaran, DrPH, continued as the Senior Associate for Research. Clifford Sanders joined the Division in March as the Senior Associate for Field Programs. Doris Stanley continued in her role as Division Secretary, although she then left the project in June. Monica Diggle joined the staff as a trilingual Division Secretary in April. The Division is currently recruiting to fill the additional secretarial vacancy. The Resource Center position has continued to be filled by a consultant who is expected to move into a permanent position early in the next reporting period.
- b. **Logistics:** Institute staff have devoted considerable time during the reporting period to standardizing operating procedures and forms for both in-house and A.I.D. procedures. This process is continuing. The Division has presented and/or shared all processes developed and in development with the NFP Division for their consideration in order to ensure consistent and compatible approaches to standardizing reporting and processes.
- c. **Budget and Workplan:** The project fiscal year ends in June 1992. Plans are to write extensions of all ongoing Breastfeeding Division subprojects during the next reporting period and to complete all subagreements planned for this fiscal year. The draft budget and workplan were completed by the Division in mid-May and were coordinated with the NFP Division in June.

### 2. Division Evaluation

As described in our proposal to A.I.D. for the current cooperative agreement, IRH will monitor and evaluate activities that are carried out within the Institute and through formal subcontracts. Evaluation is an ongoing effort. The Division is developing a self-monitoring and evaluation plan for all projects. It will be constituted as a single sheet to be kept in each project file.

**Planned Activities:** The plan for overall evaluation of the three objectives will be further refined and implemented. The current plan is to document current status in each of the three areas and to repeat that process toward project end. In addition, a new staff member, Myrna Seidman, will be devoting 15 percent of her time to developing baseline data on the three objectives and other issues related to evaluation.

## **IV. RESOURCE CENTER**

### **A. GENERAL DESCRIPTION**

The Resource Center of the Institute for Reproductive Health is an information center established to support and contribute to education, training, and research in fertility awareness and NFP and the fertility aspects of Breastfeeding through gathering and distributing materials. The Resource Center staff assist in all Institute publications, including copy editing, reference work, style conformity, and publication production.

The major undertaking of designing a classification scheme, applying it to the materials held, and developing a bibliographic database has begun. Presently, the Resource Center staff are continuing to develop IRH's database, a process which will be ongoing as new materials come in. When completed the database will aid in accurately cataloging, filing, and retrieving materials; and will provide bibliographic data as needed.

### **B. DISSEMINATION/MAILING LIST**

#### **1. Dissemination**

The Resource Center received approximately 300 requests for Institute publications and/or information on NFP and Breastfeeding. Institute publications frequently requested in this reporting period are "Lactation Education for Health Professionals," published with PAHO, which was reviewed in a number of journals; and Part II of the special supplement of the proceedings of "Natural Family Planning: Current Knowledge and New Strategies for the 1990s," published by IRH/Georgetown University. Both the booklet and the video "Breastfeeding: Protecting a Natural Resource" are also frequently requested in all available languages, as is "NFP: A Good Option." An inventory is ongoing to assess current backlog and total number of materials disseminated, and to maintain an accurate account of materials held.

#### **2. Mailing List**

In order to have better quality control and updating ability it was determined that it would be most productive to create an Institute mailing list produced and housed here, rather than with an Institute subcontractor. The Resource Center staff plan to have the mailing list created and entered within six months.

### **C. LITERATURE AND MATERIALS COLLECTION**

With the main phase of the Resource Center move and reorganization completed, Resource Center staff are now focusing on strengthening and expanding the Resource Center collection of materials. Special attention is being given to determining which Breastfeeding, NFP, and Maternal and Child Health journals are needed to complement and support the Institute's programs and research.

The Resource Center is assisting in the expansion and update of the media/slide libraries. The purchasing of required equipment has been completed, including a portable video monitor for the Breastfeeding Division, a slide view table, an audioviewer, a projection screen, and a slide projector.

## **LIST OF APPENDICES**

- 1. List of staff and consultant travel for reporting period  
Planned travel for next six-month reporting period**
- 2. Publications**
- 3. Presentations**
- 4. Organization Chart/Staff Listing**

## **APPENDICES**

**BREASTFEEDING DIVISION TRAVEL PLAN  
STAFF AND CONSULTANTS  
JANUARY 1, 1992 - JUNE 30, 1993**

<b>TRAVELER</b>	<b>SITE</b>	<b>PURPOSE</b>	<b>DATE</b>	<b>STATUS</b>
<b>JANUARY 1, 1992 - JUNE 30, 1992</b>				
<b><u>Staff</u></b>				
Virginia Laukaran	Ecuador	Project Monitoring	1/11-1/19/92	Completed
M. Labbok	Peru	Big Country Strategy Development	2/8-22/92	Completed
Kristin Cooney	Australia	IFFLP Conference	3/6-23/92	Completed
Clifford Sanders	Mexico	Presentation/TA	3/26-3/29/92	Completed
Virginia Laukaran	Jordan	TA to Mission	5-5/5/27/92	Completed
Miriam Labbok	Geneva/London	TA	5/23-28, and 6/7-13/92	Completed
Clifford Sanders	Honduras	TA	6/9-11/92	Completed
<b><u>Consultants and Subcontractors</u></b>				
Karen Wade	Ecuador	Project Monitoring	1/11-1/19/92	Completed
Judy Canahuati	Honduras	Project Monitoring	1/27-2/5/92	Completed
Peggy Koniz-Booher	Guatemala/Honduras	Project Monitoring TA	3/17-26/92	Completed
Peggy Koniz-Booher	Mexico	Presentation/TA	4/7/1-4/11/92	Completed
Judy Canahuati	Honduras	TA	4/20-5/3/92	Completed
Judy Canahuati	Honduras	TA	6/3-6/16/92	Completed
Telmo Simancas	Honduras	TA	6/9-11/92	Completed

<b>TRAVELER</b>	<b>SITE</b>	<b>PURPOSE</b>	<b>DATE</b>	<b>STATUS</b>
<b>JULY 1, 1992 - DECEMBER 31, 1992</b>				
<b>Staff</b>				
Miriam Labbok	Chile	Project Monitoring	7/20-26/92	Completed
Miriam Labbok	LLLI/Colorado	Presentations, Physicians Seminar	7/15-18/92	Completed
Kristin Cooney	Indonesia	Project Development	Cancelled	Cancelled
Kristin Cooney	New York, NY (CARE)	TA to CA	7/28-29/92	Completed
Miriam Labbok	New York, NY (CARE)	TA to CA	7/28-29/92	Completed
Clifford Sanders	New York, NY (CARE)	TA to CA	7/28-29/92	Completed
Kristin Cooney	Cameroon	IFFLP LAM Workshops/Conference	8/6-8/20/92	In Process
Kristin Cooney	Rio de Janeiro Sao Paolo, Brazil	20th UNICEF World Congress of Pediatrics Meet-Anibal Faundes, MD, CEMICAMP	8/30-9/11/92 8/31-9/1/92	In Process
Peggy Koniz-Booher	Rio de Janeiro	20th UNICEF World Congress of Pediatrics	8/30-9/11/92	In Process
Virginia Laukaran	Stockholm/Helsinki	Presentation ISRHML	8/8-17/92	In Process
Clifford Sanders	Bogota, Colombia	Project Development	9/10/-9/12/92	Tentative
Clifford Sanders	Quito, Ecuador	Project Monitoring	9/14-9/16/92	In Process
Virginia Laukaran	Quito, Ecuador	Project Monitoring	9/14-9/16/92	In Process
Kristin Cooney	Los Angeles/San Diego	TA to CA (World Vision and Project Concern Int'l)	9/92	Tentative
Miriam Labbok	Egypt, Jordan, Morocco, Spain	Project Development, Presentations SAC Meeting	Oct. 8-Nov. 1, 92	Tentative

<b>TRAVELER</b>	<b>SITE</b>	<b>PURPOSE</b>	<b>DATE</b>	<b>STATUS</b>
TBD	Kenya/Uganda/Zimbabwe	TA/Project Development	Oct/Nov 92	Tentative
TBD x 2	Other Project Dev.	TA	Oct/Nov 92	Tentative
Cliff Sanders	Guatemala	Project Monitoring, Presentations	Nov 92	Tentative
Miriam Labbok	Chile	Project Monitoring	Nov-92	Tentative
<b><u>Consultants and Subcontractors</u></b>				
TBD	Ecuador	Project Monitoring	August/Sept 92	Tentative
Judy Canahuati	Honduras	Project Monitoring	August/Sept 92	Tentative
Peggy Koniz-Booher	Guatemala/Honduras	Project Monitoring, Presentations	Nov 9	Tentative

<b>TRAVELER</b>	<b>SITE</b>	<b>PURPOSE</b>	<b>DATE</b>	<b>STATUS</b>
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**JANUARY 1, 1993 - JUNE 30, 1993**

**Staff**

Virginia Laukaran	Ecuador	Project Monitoring		Tentative
Clifford Sanders	Ecuador	Project Monitoring		Tentative
Kristin Cooney	Africa	Project Development/Monitoring		Tentative
Miriam Labbok	Chile	Project Monitoring		Tentative
Miriam Labbok	Paraguay	IFFLP	May 1993	Tentative
Kristin Cooney	Paraguay	IFFLP LAM Workshops	May 1993	Tentative
Virginia Laukaran	Asia	Project Development		Tentative
Clifford Sanders	Brazil	Project Monitoring		Tentative
Clifford Sanders	Colombia	Project Development/Monitoring		Tentative

**Consultants and Subcontractors**

TBD	Brazil	Project Monitoring		Tentative
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**NFP DIVISION TRAVEL PLAN  
STAFF AND CONSULTANTS  
JANUARY 1, 1992 - JUNE 30 1992**

<b>TRAVELLER</b>	<b>SITE</b>	<b>PURPOSE</b>	<b>DATE</b>	<b>STATUS</b>
<b>Staff</b>				
J.T.Queenan	Chile	Project monitoring	1/8-14	Completed
V.Jennings	New York	Quality of Care/Pop Council	1/30-31	Completed
V.Jennings	Australia	IFFLP Zonal Meeting	3/92	Completed
<b>Consultants and Subcontractors</b>				
J.L.Simpson	Chile	Project monitoring	1/8-14	Completed
W. Pruzensky	Chile, Brazil & Dominican Republic	Project monitoring	1/12-20 1/30-2/7	Completed
C.Lanctot	Australia	IFFLP Zonal Meeting	3/92	Completed
W.Pruzensky	Australia	IFFLP Zonal Meeting	3/92	Completed
W.Pruzensky	Papua New Guinea, Philippines	Discuss projects development	3/25-4/4	Completed
J.LeBlanc/Mauritius	Turkey	AVSC Conference	4/20-24	Completed
C.Norman/Wales	Turkey	AVSC Conference	4/20-24	Completed
C.Ugarte	Bolivia	Project development	4/26-5/1	Completed
M.B.Moore	Pittsburgh	Project development	5/14	Completed
M.B.Moore	Wales, U.K.	Project development	6/23-30	Completed

**JULY 1, 1992 - DECEMBER 31, 1992**

<b>TRAVELLER</b>	<b>SITE</b>	<b>PURPOSE</b>	<b>DATE</b>	<b>STATUS</b>
<b>Staff</b>				
V.Lamprecht	Cameroon	IFFLP Zonal Meeting	8/6-20	Scheduled
V.Jennings	Spain/Italy	SAC Meeting ((Spain), Italian NFP Consortium	10/	Scheduled
J.T.Queenan	Spain	SAC Meeting	10/27-28	Scheduled
V.Jennings	Bolivia, Guatemala	Project monitoring	11/	Tentative
<b>Consultants and Subcontractors</b>				
C.Ugarte	New York	Project development	7/14	Scheduled
C.Ugarte	Guatemala	Project development	7/26-31	Scheduled
B.Kambic	Cameroon	IFFLP Zonal Meeting	8/6-20	Scheduled
C.Norman/Wales	Cameroon	IFFLP Zonal Meeting	8/6-20	Scheduled
M.Seidman	Cameroon	IFFLP Zonal Meeting	8/6-20	Scheduled
R.Sevigny	Cameroon, Ivory Coast, Ghana and Senegal	IFFLP Zonal Meeting (Cameroon); Projects monitoring	8/3-22	Scheduled
C.Lanctot	Cameroon, Kenya, Rwanda	IFFLP Zonal Meeting (Cameroon); Discuss projects implementation	8/3-22	Scheduled
C.Ugarte	Bolivia	Project monitoring, TA	8/17-22	Scheduled
C.Ugarte	Guatemala	Project monitoring, TA	10/12-17	Scheduled
C.Norman	India	IPPF Panel	10/23-27	Scheduled
Joe L.Simpson	Spain	SAC Meeting	10/27-28	Scheduled

<b>TRAVELLER</b>	<b>SITE</b>	<b>PURPOSE</b>	<b>DATE</b>	<b>STATUS</b>
R.Sevigny	Zambia, Mauritius, Zimbabwe or South Africa	Project monitoring & development	10-11	Tentative
W.Pruzensky	Brazil, Peru, Chile, D.R.	Project monitoring	10-11	Tentative
M.Seidman	Kenya, Mauritius, Zambia	Project monitoring, evaluation	11	Tentative

## APPENDIX #2

### PUBLICATIONS

January 1, 1992 - June 30, 1992

Aumack, K., Kass-Annese, B., Goodman, L. Guide For Natural Family Planning Trainers (Spanish). 1992.

Cooney, K. The Contribution of Breastfeeding and the Lactational Amenorrhea Method to the Reduction of Fertility Worldwide. Institute Occasional Paper #3, April 1992.

Jennings, V. Client Provider Instructions. Report on the Meeting on Quality of Care and Clinic-based MIS. The Population Council.

Jennings, V.J., Queenan, J.T. Natural Family Planning: An Important Option for Child Spacing. NU Nyttom U. Landshälsövard, 1991.

Labbok, M. Mutual Complementarity of Nutrition and Family Planning for Safe Motherhood: The Synergistic Role of Breastfeeding. ACC/SCN 18th Session. UNFPA, New York, February 25- March 1, 1991. Institute Occasional Paper #1, March 1992.

Labbok, M., Koniz-Booher, P., Cooney, K., Shelton, J., Krasovec, K. (eds). Guidelines for Breastfeeding in Natural Family Planning and Child Survival Programs (English and French), July 1992.

Labbok, M., Koniz-Booher, P., Cooney, K., Shelton, J., Krasovec, K. (eds). Guidelines for Breastfeeding in Family Planning and Child Survival Program (revised editions: English, March 1992; French, May 1992).

Lutter, C. Breastfeeding: Why the Global Concern Now? WHO/UNICEF Technical Meeting on Breastfeeding in the 1990s. Institute Occasional Paper #2, April 1992.

Pérez, A., Labbok, M.H., Queenan J.T. Clinical Study of the Lactational Amenorrhea Method in Family Planning Programs. Lancet 1992; 339: 968-70.

Queenan, J., Jennings, V., Spieler, J., and von Hertzen, H. (eds). Natural Family Planning: Current Knowledge and New Strategies for the 1990s. Part II.

Saadeh, R., Labbok, M., Cooney, K., and P. Koniz-Booher, eds. The Technical Rationale for Global Action on Breastfeeding: Proceedings of the Expert Meeting Towards the Innocenti Declaration Geneva: The World Health Organization. In Press.

Steele Verme, C., Buffington de Castro, S., Cooney, K., Krieger, L., Thompson, D., Whitney, E., et al. Counseling for Postpartum Contraception During the Perinatal Period: A New Curriculum. New York: The Association for Voluntary Surgical Contraception. 1992.

Zinaman, M., Hughes, V., Queenan, J., Labbok, M., and B. Albertson: Acute Prolactin, Oxytocin Response and Milk Yield to Infant Suckling and Artificial Methods of Expression in Lactating Women. Pediatrics, March 1992.

### APPENDIX #3

### PRESENTATIONS

#### INSTITUTE SPONSORED PRESENTATIONS

January 1, 1992 - June 30, 1992

Title	Meeting	Presenter(s)
Quality of Care in NFP Management Information Systems	Population Council Meeting on Quality of Care and MIS, January 1992	Jennings V
Maternal Mortality in an International Perspective	Johns Hopkins University Division of International Health February 1992	Laukaran V
A Global Overview on Breastfeeding	IFFLP Breastfeeding and LAM Experts Meeting, Sydney, Australia, March 1992	Cooney K
Goals, Objectives, and Activities of Georgetown University's Breastfeeding and LAM Projects	IFFLP Breastfeeding and LAM Experts Meeting, Sydney, Australia, March 1992	Cooney K
Issues Concerning Protocols for NFP Introduction During LAM	IFFLP Breastfeeding and LAM Experts Meeting, Sydney, Australia, March 1992	Cooney K
Research and Education/ Training Issues in the Introduction of LAM into NFP Programs	IFFLP Breastfeeding and LAM Experts Meeting, Sydney, Australia, March 1992	Cooney K
Optimal Breastfeeding Practices in Support of the Lactational Amenorrhea Method	IFFLP Asia/Oceania Zone Natural Family Planning and Family Life Education Workshop for Pacific Island Nations, Sydney, Australia, March 1992	Cooney K
Breastfeeding, Contraception, and LAM	La Leche League District Conference Randalstown, Maryland, March 1992	Laukaran V
Protocol Development for a Simplified Method of NFP	Cycle Calculation Consensus Meeting, March 1992	Lamprecht V
Breastfeeding Activities of the Institute for Reproductive Health	A.I.D. Breastfeeding Cluster Meeting, Washington, DC, April 1992	Labbok M
The Importance of Exclusive Breastfeeding for Six Months	World Hunger Meeting, Brown University, Providence, Rhode Island, April 1992	Labbok M
Breastfeeding, LAM, and Natural Family Planning	New York Academy of Medicine, New York, April 1992	Labbok M
Policy on the Lactational Amenorrhea Method	UNFPA Policy Discussion, New York, April 1992	Labbok M
Expanding Access to NFP: Meeting the Challenge	IFFLP Zonal Meeting for Asia/Oceania, April 1992	Jennings V

**APPENDIX #3**  
**PRESENTATIONS**  
**(PAGE 2)**

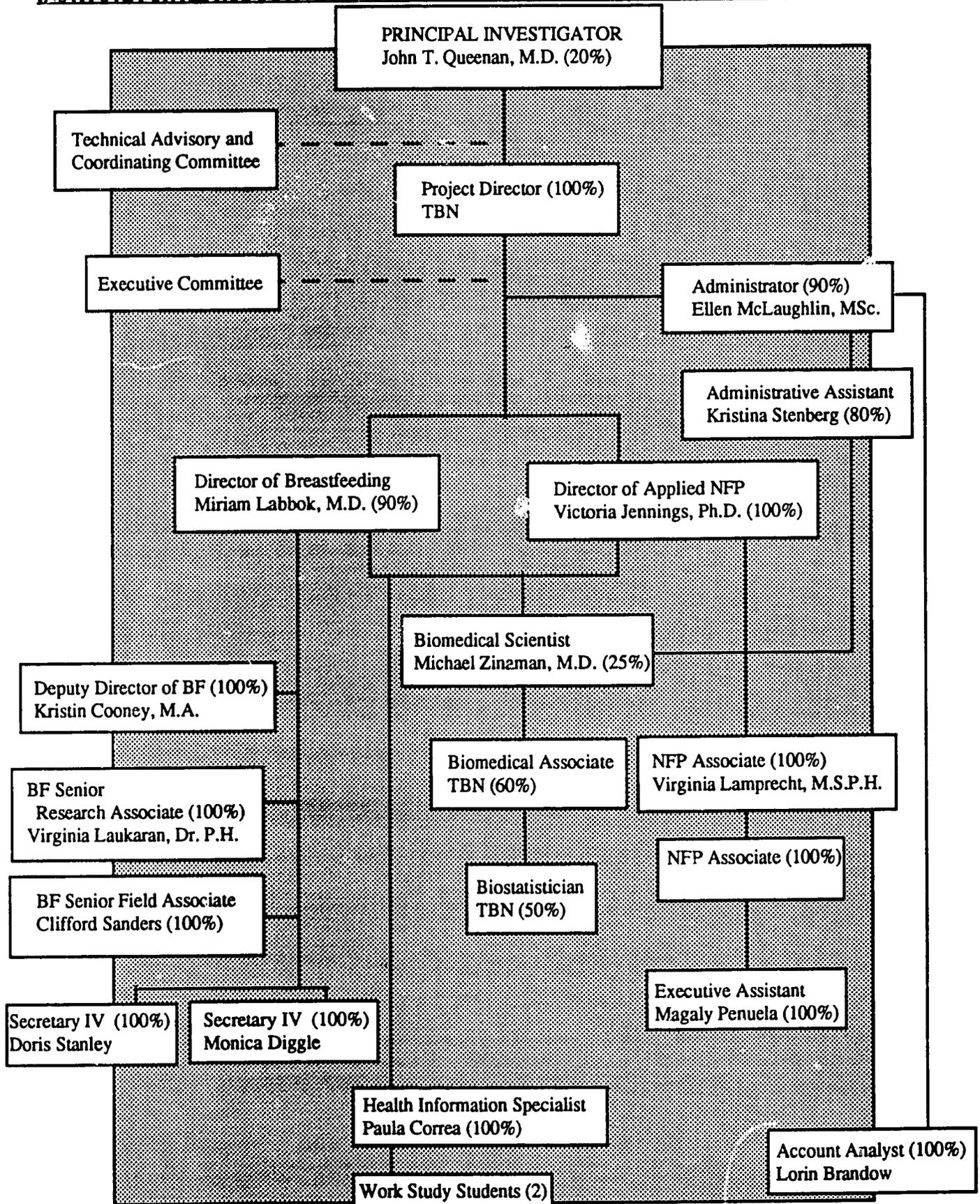
**INSTITUTE SPONSORED PRESENTATIONS**  
**January 1, 1992 - June 30, 1992**

Title	Meeting	Presenter(s)
Contraceptive Method and Use-Effectiveness Choices: Natural Family Planning in Peru	Population Association of America Annual Meeting, April 1992	Jensen E
Fertility Awareness Education: An Important Component in Quality of Care	AVSC Workshop on Quality of Care, April 1992	Norman C
Fertility Reduction: Is Breastfeeding an Effective Contraceptive Method? Opportunities for implementation in Jordan	USAID Amman, May 1992	Laukaran V
Information Needs of NFP Programs	Consensus Meeting on NFP Terms and Measures, May 1992	Seidman M
Evaluating Training Programs- NFP	A.I.D. Training Evaluation Working Group, May 1992	Seidman M
LAM and Natural Family Planning: Methods for Natural Fertility Regulation	IPPF Invited Conference, June 1992	Labbok M
Applying International Breastfeeding Policy to the United States	19th Annual NCIH International Health Conference, Washington, DC, June 1992	Cooney K
Lactational Amenorrhea as a Method for Family Planning	Family Planning During Breastfeeding Workshop, Tegucigalpa, Honduras, June 1992	Sanders C
Programmatic Implications of LAM	Family Planning During Breastfeeding Workshop, Tegucigalpa, Honduras, June 1992	Simancas T

APPENDIX #4

ORGANIZATION CHART/STAFF LISTING

INSTITUTE FOR REPRODUCTIVE HEALTH AT GEORGETOWN UNIVERSITY SCHOOL OF MEDICINE



**FINANCIAL REPORT (UNDER SEPARATE COVER)**