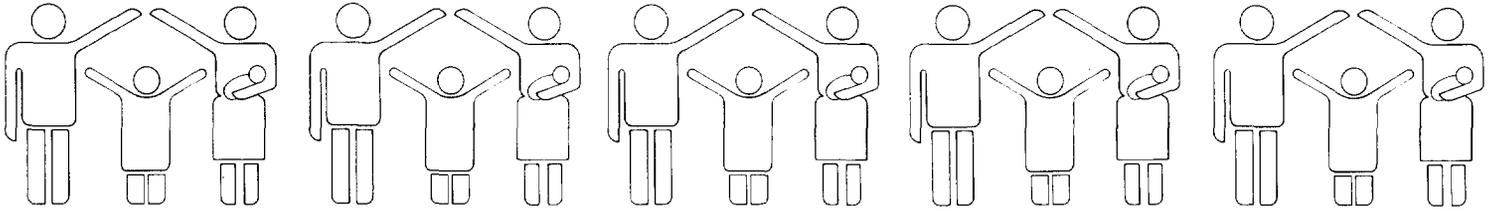


INSTITUTE FOR REPRODUCTIVE HEALTH



• Natural Family Planning

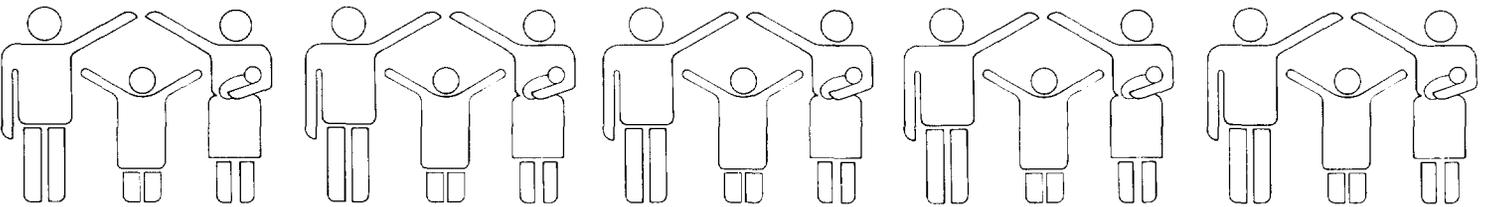
• Breastfeeding

• Reproductive Health Research

TECHNICAL PROGRESS REPORT

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

July 1, 1996 - June 30, 1997



GEORGETOWN UNIVERSITY • WASHINGTON, D.C.

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Executive Summary

This report describes the activities and accomplishments of the Institute for Reproductive Health (IRH) under United States Agency for International Development (USAID) Cooperative Agreement DPE-3061-A-00-1029-00 for the period July 1, 1996, through June 30, 1997, the final reporting period for our project, "Initiatives in Natural Family Planning and Breastfeeding".

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 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 developments on the fertility and maternal health aspects of breastfeeding, the Institute consists of two separate but collaborative divisions: Natural Family Planning and Fertility Awareness, and Breastfeeding and Maternal and Child Health. The work of the two divisions is presented separately in this report.

A. NATURAL FAMILY PLANNING AND FERTILITY AWARENESS DIVISION

The NFP and Fertility Awareness Division's focus during this reporting period was on scientific investigations of biomedical aspects of NFP, on expansion of fertility awareness education, and on design, testing, and implementation of the Reproductive Health Awareness (RHA) curriculum. Increased emphasis also was given to RHA as a focus of information and skills which underlie reproductive health and contribute to client empowerment, male involvement, and quality of services. During the reporting period July 1, 1996 - June 30, 1997, the Division made significant progress in addressing its objectives under the current Cooperative Agreement and took steps to allow a smooth transition between this Cooperative Agreement and the one that is being negotiated with USAID to begin in July, 1997. Highlights of the Division's accomplishments and activities are:

- The **Reproductive Health Awareness Information and Training** initiative continued. Projects were completed in Bolivia, Peru, Mexico and Ecuador. Materials for clinic and community-based audiences were developed and tested in these country programs and will form the basis of future work under a new USAID-supported project.
- Numerous **papers were given in scientific meetings**. Publications in meeting abstracts and scientific journals continued.
- **Initiatives in Public-Private Partnerships continued** with Institute support in Peru and the Philippines; and NFP NGOS in several other countries received technical assistance in pursuing partnerships with public sector organizations to expand services.
- Work continued with Duke University to **develop a simple, low-cost device for predicting and detecting ovulation**, and a plan was developed for completing this work under the new project.
- The NFP/ FA division held its **End-of-Project Meeting** in April, 1997. A special issue of *Advances in Contraception* with the findings from the conference was completed. It will be published and disseminated under the new project.

In the next reporting period, the Division expects to begin a new five-year Cooperative Agreement with USAID. It is entitled the AWARENESS project (Advancing Worldwide Access to Reproductive Health and Natural Family Planning: Expanding Successful Strategies), and it will continue the past work of the Institute while expanding the areas of NFP and Reproductive Health Awareness, with an increased emphasis on Operations Research.

The relationship of the Division's activities to USAID's Strategic Objectives is illustrated in Appendix #1.

B. BREASTFEEDING AND MCH

During the reporting period July 1, 1997, through June 30, 1997, the Breastfeeding and MCH Division continued successfully to carry out activities aimed at achieving its objectives of refining LAM use, achieving policy change, and producing program change with its focus on increasing the availability and acceptability of optimal breastfeeding and its fertility impact. In completing all aspects of our mandate, some of the more notable accomplishments included:

- **Two papers for Protocol I of the Multicenter Study of LAM were completed** and submitted to *Contraception* for publication. The papers are titled *Multicenter Study of the Lactational Amenorrhea Method (LAM): I. Efficacy, Duration, and Implications for Clinical Guidance*, and *Multicenter Study of the Lactational Amenorrhea Method (LAM): II. Acceptability, Utility, and Policy Implications*. These papers were accepted and published in the June 1997 issue of *Contraception*.
- **The Division held a final meeting for the Principal Investigators of the LAM Multicenter Study** to review the results for both protocols, discuss the differences and problems of each site, and plan for future manuscripts based on the data collected.
- **LAM services continue to be delivered at more than a dozen sites in and around La Paz, Bolivia**, with more than 1,000 successful LAM users. In conjunction with JHU/PCS, IRH developed a LAM flipchart for counseling and a follow-up card for LAM clients. IRH continued to provide technical assistance to institutions in Bolivia through May 1997.
- **The University of El Salvador's Medical School, with IRH technical assistance, incorporated LAM into the curricula of all its departments.** The Ministry of Health has developed an MIS for reproductive health that includes LAM.
- **IRH continued to provide technical assistance to institutions in Peru.** Training workshops were conducted for providers from service delivery institutions and for faculty of schools of nursing, midwifery, and/or medicine of several universities.
- **Under the launch of a four-month LAM Support Project in the Philippines**, a LAM Technical Secretariat was hired to provide day-to-day logistical support to IRH. **IRH organized and conducted three sensitization meetings** for representatives of the Department of Health, major USAID Cooperating Agencies, and donor agencies working in family planning and maternal child health in the Philippines.

- **The second phase of the Jordan project included the development of additional IEC materials, additional LAM training, and the evaluation of the project.** The Guidelines video was translated into Arabic for use in Jordan. In addition, an Arabic training curriculum was designed. Since LAM counseling began in August 1996, 490 mothers have become LAM acceptors.
- The Division translated its new videotape, *Taking the First Steps: The Lactational Amenorrhea Method for Family Planning*, into French and Spanish.
- **The Division produced a new pamphlet geared towards clients entitled *Family Planning Methods for the Breastfeeding Woman: Lactational Amenorrhea Method*.** This pamphlet, which was pretested with previous LAM users as well as with postpartum women who were not familiar with the method, describes the method and its use and provides women with information on breastfeeding and family planning methods which do not interfere with breastfeeding.
- **A booklet presenting the Division's extensive work in LAM integration worldwide, *Taking the First Steps: A Decade of Promoting the Lactational Amenorrhea Method for Family Planning*, was completed.**
- **The monograph *Breastfeeding and Child Spacing: Country Profiles*, was also completed and distributed.** This monograph is an analysis of breastfeeding and family planning data from 27 DHS countries.
- **The Division held its Third International Training in Breastfeeding, LAM, and Postpartum Reproductive Health in March 1997.** Representatives from Bangladesh, Ecuador, Ghana, Jordan, Uganda, and Zambia left the training with action plans ready for implementation upon their return to their respective countries.
- **The Division held its end-of-project conference, *Bellagio and Beyond: Breastfeeding and LAM in Reproductive Health*, in May 1997.** More than 40 individuals presented papers on their programs, materials development, research, training, and other activities carried out during the last ten years.
- **The Division completed several manuscripts on infant feeding and lactational amenorrhea that have been submitted for publication in June 1997.**
- **Division staff traveled to Bangkok, Thailand, to participate in the World Alliance for Breastfeeding Action (WABA) Global Forum.** They presented a workshop on the Lactational Amenorrhea Method

which resulted in three strong recommendations related to LAM for inclusion in the Forum's final Plan of Action.

- **In IRH field sites Bolivia, Jordan, and Peru, Training of Trainers' sessions on LAM, breastfeeding, and postpartum reproductive health** have been carried out as well as project monitoring. Trainees continued to train in-country health care professionals.

Progress in this reporting period has been significant as we prepared to close out the project. Documents and publications disseminating vital information about the past decade's activities in breastfeeding and LAM have been distributed widely.

The Institute has made meaningful progress during this reporting period. We have enhanced our collaboration with other agencies and have been able to complete our planned activities worldwide. Through our efforts, we have succeeded in expanding and strengthening our mandate, remaining flexible to respond to changing demands and priorities, while continuing to carry out our broad-based program of research, pilot projects, training, information, education and communication, technical assistance, and policy development and change.

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**TWO:
FERTILITY AWARENESS
AND
NATURAL FAMILY PLANNING**

A. OBJECTIVES

The Fertility Awareness and Natural Family Planning Division strives both to enhance the quality and accessibility of **Natural Family Planning (NFP)** and to promote an education-based, life-cycle approach to **Reproductive Health**. These goals have been evolving and expanding in response to our field experiences and the recommendations of USAID and other experts. The Division continued to pursue NFP objectives of (a) developing simple, reliable ways to define the fertile period, (b) expanding NFP services by strengthening local NFP programs, and (c) enhancing the understanding and awareness of NFP as a viable family planning method, particularly in the scientific and policy-making communities.

The Fertility Awareness and NFP Division also has continued to expand its Fertility Awareness (FA) approach into a broader-based **Reproductive Health Awareness (RHA)** initiative that promotes reproductive health by helping people learn to observe and understand their own bodies, its normal changes, and the signs and symptoms that suggest the need for a health intervention. We are assisting reproductive health/family planning organizations and professionals who work with adolescents and youth to incorporate reproductive health education into their service delivery and curricula. To augment these efforts, the Division has developed flexible, interactive RHA learning materials. The materials teach not only a basic understanding of fertility and reproductive health but also address psychosocial issues and develop communication skills necessary to discuss such issues with partners, friends, health care providers, and others. We continued to refine and test these RHA materials and to develop a curriculum to assist reproductive health/family

planning organizations to incorporate an RHA approach into their programs.

Natural Family Planning Objectives

The Institute's objectives in NFP are to:

- **Develop and test reliable, simplified methods for defining the fertile period,**
- **Improve, expand, and evaluate programs to increase the availability, accessibility, and quality of NFP services, and**
- **Inform the scientific community, policy makers, and others about various aspects of NFP.**

The discussions in section B of this report describe the strategies we employ to achieve these objectives, the activities undertaken as part of each strategy, and **Planned Activities** for the next project (July 1, 1997 - June 30, 2002).

Reproductive Health Awareness Objectives

Our objectives in Reproductive Health Awareness are to:

- **Increase RHA training and education in family planning and reproductive health programs, and**
- **Determine the impact of RHA training and education on reproductive health.**

During this reporting period, we tested the RHA approach, which included a broader perspective while maintaining an emphasis on fertility and family planning and allows us to focus on related issues, such as reproductive tract infections and the special needs of adolescents, gender issues, and changes during the life cycle.

The discussions in section C of this report describe our strategies and activities directed toward fulfilling these objectives, followed by **Planned Activities** for the new project.

B. NFP ACTIVITIES

I. **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

An important focus of our work is the **development and testing of a simple, low-cost home test kit to monitor fertility status during the menstrual cycle**. We have supported basic and clinical research in this area. We also have provided extensive technical assistance to both industrial partners and developers of home test kits that predict and identify the fertile phase of the cycle. In the future, we expect to be involved in the introduction of the home test kits in both developed and developing countries.

Our activities in this area include support for and involvement in research on home test kits to predict and detect ovulation, including: (1) support to Duke University to assess parameters of cervical mucus hydration as a basis for a home test kit, (2) communication with industry (UNIPATH and others) on clinical trials of a home test kit, (3) preparation of papers on the state-of-the-art in ovulation prediction, and (4) development of a library of ovulation prediction devices.

Our current efforts in this area include the following:

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

The focus of this project, which is being conducted by Dr. David Katz at Duke University, is to develop a user-friendly method for self-monitoring of cervical mucus during the menstrual cycle. The specific goal is to produce a simple device to assist women in identifying the onset and conclusion of their fertile phase. Earlier work in this project demonstrated that typically three to four days prior to the LH peak, there is a marked rise in the hydration content of mucus. This quantum jump in hydration--which coincides with the ability of sperm to penetrate cervical mucus--occurs roughly over a

one-day interval and identifies the onset of the fertile phase.

Dr. Katz collaborated with other scientists and bio-medical engineers to devise an innovative and practical technique that measures the changes of cervical mucus *in vivo*--which does not require the removal of the sample from the cervical os. The hydration content of mucus is measured by the index of light refraction, which is based on the angle of light rays bouncing off the surface of the mucus.

The second prototype device that performs this technique is completed. The tampon-shaped device--containing a light source, mirror, and prism--will rest inside the vagina to measure the degree of light bending (refraction). A simple analog-to-digital circuit measures the transmitted light which is linearly correlated with hydration of mucus in contact with the sheet. This approach is attractive because the measurement is conducted *in vivo*. The mucus, therefore, is not subject to drying and stretching, both of which alter its biophysical properties.

After development of the second prototype device was completed, a paper, "Analysis of preovulatory change in cervical mucus hydration and sperm penetrability" (DF Katz, DA Slade, SJ Nakajima) was drafted for presentation at the Division's end-of-project (EOP) meeting and for publication in *Advances in Contraception*.

Approval from the Duke University OB/GYN department was granted, and recruiting of an initial group of women to test the device *in vivo* is occurring. Testing is to begin in July 1997.

Planned Activities:

Funding will be continued under the AWARENESS project. During the next reporting period, testing of the prototype will be completed and analyzed. Dr. Katz and Dr. Jennings will meet with WHO representatives to encourage their interest in this device, and Dr. Queenan will contact European pharmaceutical companies to encourage their interest in the device. Dr. Katz will present his results at a meeting of European NFP researchers in England.

(2) General Coordination with Industry for Development of Ovulation Prediction Home Test Kit

As in the past, the Institute has continued to contact members of the scientific and research communities to encourage interest in ovulation prediction. We continue to be in contact with several researchers and manufacturers of devices and assay kits, including UNIPATH in the UK, which has conducted clinical trials of a very promising ovulation prediction device in Europe and is starting US clinical trials in 1997.

During this reporting period the Division reviewed devices under development or being considered for marketing. These devices – at varying levels of technological sophistication – are based on the ferning pattern of cervical secretions and saliva that occurs around the time of ovulation and on the women's ability to detect and interpret this pattern to determine the beginning and end of her fertile time. To date, our review of these devices has not confirmed either the strength of the ferning pattern in predicting or detecting ovulation or the appropriateness of existing devices for observing the ferning phenomenon.

A meeting with UNIPATH and two collaborators for its European trials was conducted in August, and Dr. Keith May (an investigator from this project) presented the European clinical trial results at the end-of-project meeting (April 1997).

Planned Activities:

The IRH plans to continue its coordination efforts to encourage industrial partners to link up with scientists to bring to market ovulation prediction/detection devices in the AWARENESS project and to monitor industry activities in this area.

(3) Probability of Conception on Different Days of the Menstrual Cycle

The purpose of the study is to estimate the probability of conception on each day of the menstrual cycle as a function of temperature shift and cervical mucus patterns. Data (observations of cervical mucus, temperature, and intercourse) were collected from several hundred couples practicing

NFP in seven centers throughout Europe. Statistical techniques are being applied to assign probabilities of conception to each day of the cycle, given specific patterns of mucus and temperature patterns. Professors Bernardo Colombo and Guido Masarotto of the University of Padua are Principal Investigators for the study.

This study offers a number of benefits: assigning conception probabilities to each day of the menstrual cycle based on intercourse and fertility patterns; providing women with an estimate of their risks of becoming pregnant, taking into account their unique cycles; and assessing the potential efficacy of ovulation prediction devices and new approaches to practicing NFP.

Over 5,000 charts have been entered into the data base with 300 pregnancies. Additional charts from Auckland, New Zealand have been added to increase the number of cycles contained in the data set. These charts were collected for another research project; but the data were collected prospectively, and the women meet the criteria for the study. Data collection is complete, having reached the target numbers that were revised to accommodate time constraints and future funding uncertainties. Efforts to clean, enter, and analyze the data have been completed.

The findings of preliminary analyses suggest important implications for our understanding of current world fertility. One trend appears to be a decline in male fertility. The data from this study was compared to data collected by Marshall in the 1960s and Wilcox in the 1980s.

A preliminary paper was written to introduce the study to the scientific community and it was presented at the Institute's End-of-Project meeting (April 1997).

Planned Activities:

The preliminary paper will be distributed in a special issue of *Advances in Contraception*. The investigators will complete the analyses with local funds.

(4) Papers and Presentations on State-Of-The-Art in Ovulation Prediction

(a) We continue to disseminate reprints of "Prediction and Detection of Ovulation: The Markers," which appeared in the June, 1995, issue of the *International Journal of Fertility and Menopausal Studies*. This article, which was prepared by Dr. Antonio Martinez and Institute faculty, reviews fertility markers and ongoing research in the field. At the Division's end-of-project meeting, Dr Martinez presented an updated paper on this topic.

Planned Activities: We will continue to disseminate the 1995 paper. The updated paper will be published in a special issue of *Advances in Contraception* in August.

(b) A paper related to the above has been written for a lay audience. This paper gives an overview of ovulation prediction, and summarizes the potential audiences, uses, desired characteristics, technologies, and markets for such a home test device.

This paper was submitted to *American Family Physician* in this reporting period.

Planned Activities:

This article will be disseminated during the AWARENESS project.

(5) Library of Ovulation Prediction Devices

The purpose of the Ovulation Prediction Library is to provide Institute visitors and staff with practical knowledge of how ovulation prediction devices are designed and how they are used.

Several slide images have been made of our collected ovulation prediction and detection devices. The Ovulation Prediction Device Library is on semi-permanent display in the foyer of IRH.

Planned Activities: We plan to add new devices to the library as they become available in the future. An added emphasis will be on colliding mnemonic devices that can assist with use of simple calendar rules.

B. Strategy: Support and encourage research on safety and efficacy of NFP methods

Concerns about safety and efficacy continue to be a significant barrier to the wide acceptance and use of natural methods. One of our main goals is to provide the scientific community with definitive information about NFP safety and efficacy and to promote the inclusion of this information in family planning training.

Our activities in this area include (1) continued analysis of data from a multicenter study on the outcome of pregnancies that occur with couples using NFP, (2) studies on calendar method efficacy and acceptability, and (3) dissemination of a paper which reviewed the published and unpublished studies on NFP efficacy, the context and conditions of efficacy, and a research agenda for further investigation of efficacy issues.

(1) Surveillance of NFP and Pregnancy Outcomes

The purpose of this study was 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 was administered through the Baylor College of Medicine, was completed during this reporting period. Dr. Joe Leigh Simpson was the Principal Investigator for this study. The Johns Hopkins University, which was responsible for data analysis, reported that well over 1,000 pregnancy charts were complete and had been analyzed. All forms have been reviewed and entered. Data analysis has proceeded on several lines:

- a) Determine the interval between conception, intercourse and estimated day of ovulation (timing of conception),
- b) Replicate previous analysis with respect to timing of conception, spontaneous abortions (SAB), birth defects, and sex ratio,
- c) Perform similar analysis to determine the effect of timing of conception on birth weight, and

- d) Perform analysis according to whether pregnancies were planned or unplanned.

First, likelihood of conception per specific day vis-a-vis ovulation was determined (Simpson, J., Gray, R., Queenan, J., Mena, P., Perez, A., Kambic, R., Pardo, F., Barbato, M., Spieler, J.: Timing of intercourse (Letter to the Editor). *Hum Reprod* 10: 2176-2177, 1995). Approximately 75 percent of conceptions occurred as a result of coitus on day 0, -1, or -2. Very few conceptions occurred after ovulation, suggesting that the window of fertility is narrower than once thought. Dr. Simpson commented on the implications of this for NFP utilization in a December *New England Journal of Medicine* editorial that generated considerable media attention, including articles in *The Washington Post* and *USA Today* (Simpson, J.: Pregnancy and the timing of intercourse (Editorial). *N Engl J Med* 333: 1563-1565, 1995).

Earlier in the study, it was shown that women who had experienced miscarriages in previous pregnancies had lower rates of spontaneous abortion for conceptions during optimal days of the cycle (days -1 and 0 relative to ovulation). This trend was not observed among women who had no prior miscarriages (i.e., were never pregnant or had pregnancies only with normal outcomes). The investigators had no explanation for the observations, which had not been previously reported.

The present updated analysis has replicated and confirmed the previous findings. The overall rate of spontaneous abortion (SAB) is 10.1 percent. This is well within the expected range and has remained fairly constant over the time of this study. This suggests that there is no overall increase in SAB risk with NFP pregnancies. However, among women with a history of prior pregnancy loss, there is an increased risk of SAB associated with pre- or post-ovulatory delayed conceptions. Data were published by Gray et al., "Timing of conception and the risk of spontaneous abortion among pregnancies occurring during the use of natural family planning," in the *American Journal of Obstetrics and Gynecology* (1995; 172: 1567-72).

No increase in birth defects was found. The overall major anomaly rate in 887 singleton pregnancies is

2.6 percent (23/887). In 369 pregnancies on day 0 or -1, there were 11 anomalies (3.0%). In 518 non-optimally timed pregnancies there were 12 anomalies (2.3%). For Down syndrome, the rate in optimally-timed pregnancies was 0.5 percent (2/369), compared to 0.72 percent in non-optimal pregnancies (4/518).

The overall prevalence of low birth weight (LBW) (L = 2500 grams) is 3.5 percent. The prevalence of LBW is 4.4 percent for optimally-timed conceptions and 2.9 percent for non-optimal conceptions. For planned pregnancies the rate is 3.7 percent and for unplanned pregnancies it is 3.3 percent. Similarly, there are no significant findings for preterm births (37 weeks), overall rate being 6.8 percent. Drs. Barbato and Mena are analyzing and writing up data on other pregnancy complications.

A paper prepared by Drs. Ron Gray and Adenike Bitto, "A prospective study of unplanned pregnancies and the risk of adverse outcomes in natural family planning users," was published by the *American Journal of Public Health* and is available from the Institute.

In addition, though final analysis is still underway, there appears to be no relationship between timing of conception and sex ratio. In 186 optimal conceptions (day 0 or -1), the sex ratio is 50 percent (total N = 518). One positive finding, possibly reflecting only the bias of multiple comparisons, is an excess of males (47/28; 62% sex ratio) in unplanned pregnancies that result from intercourse at the optimal time. Also, in optimally-timed, planned pregnancies using the ovulation method (OM), the sex ratio is decreased (64 M/81F). This effect was not significant in BBT pregnancies or in the overall group of planned pregnancies (OM and BBT).

Data analysis continued during this reporting period. Papers published include: "Pregnancy Complications, Timing of Conception and Planning Status of Pregnancy among NFP Users" and "Effects of Cycle Length, Timing of Conception, and Planning Status on Sex Ratio in NFP Users." Other topics being explored include the association between preterm birth, birth weight and timing of conception vis-a-vis ovulation. Papers on these

topics were presented at the Division's end-of-project meeting.

Drs. Simpson and Queenan traveled to Chile and Argentina in early 1997 to assist study investigators with the continuing analysis and interpretation of data from this study. They collaborated to draft and finalize a series of papers and presentations on the findings. In addition, they verified that a permanent location for and preservation and security of study records is established.

Planned Activities: Dr. Queenan and Dr. Jennings will explore opportunities for future collaboration on NFP research projects with Latin American study investigators. The papers presented at the end-of-project meeting will be published in a special issue of *Advances in Contraception*.

(2) Regional Assessment of Congenital Malformations (ECLAMC)

The complementary study conducted by the Latin American Collaborative Study of Congenital Malformations (ECLAMC is the Spanish acronym) was directed by Dr. Eduardo Castilla (Rio de Janeiro). The study--which interviewed approximately 10,000 women delivering in 18 Latin American hospitals over a three-year period--revealed no link between NFP use and congenital malformations. The data the study collected provided a wealth of information on the relationship between pregnancy intention and contraceptive use, the level of Fertility Awareness among women, the frequency of use of specific methods, and reasons for non-use of family planning.

Some of these data were analyzed in a paper that was presented at a session of the Buenos Aires Obstetrics and Gynecology Society. During the current reporting period, this paper was published in the Society's journal.

The first results of the case-control ECLAMC study have been published (Castilla, E., Simpson, J., Queenan, J.: Down syndrome is not increased in offspring of natural family planning users (case control analysis). *Am. J. Med. Genet.*, 59: 525, 1995). No significant increase in Down syndrome was observed in NFP users.

A paper on this study was presented at the APHA meeting in November 1996 by Dr. Jennings and at the psychological workshop of the Population Association of America meeting in March, 1997.

Planned Activities: This paper will be completed and submitted for publication during the first reporting period of the new project. Dr. Jennings will present the paper at a meeting of European NFP researchers in England in September and submit it for publication in late 1997.

(3) Calendar Method Efficacy and Acceptability

1. Pilot Trial in Dublin

The results of the trial were presented at the Division's end-of-project meeting by Dr. John Bonner. There were no pregnancies in the 19 couples who completed this trial, but difficulties in recruiting resulted in an inadequate sample for additional analysis for purposes of establishing efficacy. However, data collected on the behavior of couples in the study during the fertile time was of interest, and a paper on this topic was presented at the division's end-of-project meeting.

Planned Activities: The activity is completed.

2. Trial of the "Collar Method" (Simple Calendar Rule)

A pilot study to test a simple calendar rule conducted by CEMICAMP in Brazil, with Dr. Anibal Faundes of the Population Council and CEMICAMP as Principal Investigator, neared completion. All eligible women in the study are asked to abstain from days 9 to 19 (inclusive) of their menstrual cycle. The days of the cycle to abstain are determined by using a necklace of beads (a collar) to track the fertile and infertile days of the cycle. White fluorescent beads indicate the days of likely fertility. Through the community health infrastructure of the Pastoral da Criança, couples who chose this method were taught correct use of the "collar" and monitored for 6 months to determine if they used it correctly. Their satisfaction with the method was also monitored.

During this reporting period, 50 monitors were trained (the monitors are teaching the method to and

monitoring the couples in the study), and the study was expanded from four to nine sites. At these five new sites, 388 couples were screened, 144 of them met the eligibility criteria, 73 attended the training (in 22 of these cases, only the woman attended), and 34 couples were admitted into the study (representing 8.8% of those screened). This proportion of acceptors is better than that observed in the first four sites, where only 4.7% (30/633) of the couples screened accepted the method. In-depth focus group interviews have also been or will be conducted at some of the sites.

There have been few obstacles/difficulties to report: there has been a delay in the reception of information from the sites, and communication with the local coordinators has been difficult. These problems are not surprising considering that the people collecting the data have no previous training or practical experience in research. The second problem is that many forms are not being properly or correctly filled in. The handwriting on these forms is also, at times, illegible.

According to the current chronogram, the last collection of information in the field was carried out in June of 1997. Considering the time required for transcription of tapes and data analysis, a final report will not be available any earlier than September of 1997. However, preliminary results were reported at the Division's end-of-project meeting and will be published in a special issue of *Advances in Contraception*.

Planned Activities: The problems encountered during the pilot study will be addressed, and a protocol will be developed by the Brazilian researchers for possible implementation under the Institute's planned new project. In addition, the Institute will develop a protocol appropriate for a multicenter study of the simple rule and initiate the study during the first year of the new project.

(4) Efficacy review paper and presentation

Concerns about efficacy continue to be a major barrier to the expansion of NFP services. While numerous well-designed studies have been conducted showing efficacy rates well within the range of other user-dependent methods, it remains a challenge to communicate this to the scientific and

service delivery communities. A paper on this topic was written by Ms. Virginia Lamprecht and Dr. James Trussell. The paper was presented at the Division's end-of-project meeting and will be published in a special issue of *Advances in Contraception*.

Planned Activities: The paper will be published in *Advances in Contraception*.

(5) Development of more accurate and acceptable calendar method formulas

Dr. Larry Grummer-Strawn and IRH staff conducted a reanalysis of the WHO data set of the Ovulation Method trial to develop new formulas to identify the fertile time that are more accurate and require less abstinence. During this reporting period, the paper published in *Contraception* was disseminated. This paper provided much needed guidance for family planning program leaders in selecting calendar rules for couples wishing to use this method.

Planned Activities: Further trials of a simple formula are being considered for the Institute's planned new project (see 3 above). An additional paper for a policy/provider audience also is being considered.

(6) Review Paper on Calendar/Rhythm

A review paper on the calendar/rhythm method was prepared and accepted for publication. This paper reviews efficacy studies for the calendar/rhythm method when only well-designed studies are considered. The paper was published in the December 1996 edition of *Advances in Contraception*.

Planned Activities: IRH will continue to distribute copies of this article.

C. Strategy: Support research on the use of periodic abstinence to avoid pregnancy

Periodic abstinence is the intentional avoidance of sexual intercourse on certain days of the woman's menstrual cycle for the purpose of preventing pregnancy. While periodic abstinence (PA) is not the same as NFP--since people who abstain during some days of the women's cycle to avoid pregnancy

do not necessarily have accurate information about when she is most likely to be fertile--PA does involve a behavior that is essential to the practice of NFP. Therefore, surveys that provide data about periodic abstinence-use contribute to our understanding of the potential interest in and demand for information about fertility and NFP services. The Division works with groups such as the Institute for Resource Development, which conducts the Demographic and Health Surveys, and the Centers for Disease Control, which carries out similar surveys, to encourage collection of the data we need for this purpose and to monitor the results of surveys in various countries. In addition, we are interested in increasing our understanding of the use of periodic abstinence through more in-depth research with people who use this approach to avoiding pregnancy.

Our activities in these areas during the current reporting period are described below.

(1) WHO-IRH Study on Periodic Abstinence/Calendar Method Use in Developing Countries

In collaboration with the World Health Organization (WHO), IRH sponsored a multicenter study to determine how couples who use periodic abstinence (alone or in combination with barrier methods or withdrawal) determine when they are fertile, why these couples use the method, and how satisfied they are with it. Focus groups were conducted in four countries: Peru, Hungary, the Philippines, and Sri Lanka. The Philippines site was supported by IRH.

During the previous reporting period the focus groups supported by IRH in the Philippines were completed. They were held in four communities in Tagaytay City, about 90 kilometers from Manila. A total of eight focus groups were conducted with a total of 55 participants. Results show that men prefer periodic abstinence because they do not like using condoms, and women prefer it because they want to avoid the potential side effects of contraceptives. Women like periodic abstinence because it is safe, easy to use, has no cost, and because they "don't get pregnant." Disadvantages for women include the difficulty in refusing a husband, especially if he has been drinking. Men also like periodic abstinence because it is easy to

use and has no cost. The main disadvantages men expressed were unplanned pregnancies due to miscalculation of the fertile phase and the potential for women to use the need to abstain to avoid pregnancy as an excuse not to have sex.

Most women learn about periodic abstinence from friends, neighbors, and older relatives, whereas men learn about the method from peers, girlfriends, and the local "red house." Reported calendar rules varied--but most rules appear to be based on counting days rather than using formulas in which numbers are subtracted. Institute staff and the researcher from the Philippines participated in an investigator's meeting at WHO in April. Data from all sites were reviewed and papers were drafted.

Planned Activities: Final papers will be prepared under the Institute's planned new project. At a meeting with the WHO coordinator of this study, Dr. Jennings will explore the possibility of joint IRH-WHO support of a study of a simple calendar method with subjects from these sites.

(2) DHS/CDC Surveillance of Periodic Abstinence Users

The NFP/FA Division continues to collaborate with the Institute for Resource Development on the Demographic and Health Surveys (DHS). Due to this collaboration, DHS III now included several new questions relating to NFP and periodic abstinence (Note the difficulty with distinguishing between NFP and PA, described on page 7 of this report.)

We are currently reviewing the DHS to determine how we can analyze various country data sets. We hope to learn more about whether the ability to identify the fertile period allows women greater control over the timing of their pregnancies. We also hope to find out when women begin using PA and NFP in their reproductive lives: is it a "starter" family planning method or is it initiated later? The answer to this will help us determine how best to introduce NFP in multi-method programs.

Planned Activities: We will continue to conduct initial analysis of DHS data on the tapes we have received with results from several countries with high periodic abstinence and NFP usage. We also

will monitor the development of DHS IV and attempt to influence the amount and quality of data collected that are relevant to our issues of interest.

II. Objective: Improve, expand, and evaluate programs to increase the availability, accessibility, and quality of NFP services

A. Strategy: Support pilot projects with organizations in selected countries to increase the availability of NFP in those sites, strengthen program management, and develop a data base on NFP services provided by these organizations.

Technical and financial support of NFP-provider groups in selected countries has been an important focus of our work. Many of these groups have not benefitted from the technical assistance and funding that their multi-method counterparts have received from the international donor community. A significant number of NFP groups are not eligible for such support because of their unwillingness to collaborate with other organizations and to contribute to population and reproductive health efforts in their countries. Others, however, have demonstrated their willingness and ability to do so. These latter institutions are, and will continue to be, the focus of our support.

Activities for this reporting period include: financial and technical support for and participation in a new initiative to expand NFP service throughout the Philippines through a large-scale collaboration between the public and private sectors; support for a Natural Family Planning NGO in Peru to expand NFP services through the Ministry of Health, pre-professional health training programs, and other family planning NGOs; conducting and follow-up monitoring of NFP training-of-trainers in Lviv, Ukraine; and financial and technical support for testing and implementing a Client-Focused Management Information System (MIS) in different countries. The MIS is a means to strengthen the programs, collect useful information about NFP service delivery, test and demonstrate the value of a client-focused (as distinct from method- or activity-focused) MIS, and provide NFP programs with data that facilitate their interaction with the public sector, other NGOs and potential funding sources.

These activities are further described below.

(1) Financial and Technical Support for NFP in the Philippines and Zambia

PHILIPPINES:

In a visit conducted to the Philippines in April 1996, the Institute developed a 14 month strategy and program of activities to support the expansion of NFP and LAM. The strategy was approved by AID/W, USAID/Manila and the Department of Health in August, 1996 and has served as the blueprint for the Institute's work in the Philippines during this past year. The NFP strategy called for providing technical and management support to PFNFP as the lead organization in NFP and for hiring an in-country coordinator to be based at the DOH to assist in the institutionalization of NFP capability at the DOH. Other proposed activities included the creation of an inter-agency GO/NGO committee to coordinate NFP activities and operations research to test strategies for installing NFP at the local government units (LGUs) and creating the conditions for its institutionalization and expansion.

Mitos Rivera was hired as the DOH coordinator on January 2 and has provided major assistance to building NFP capability in the DOH through training and curriculum development; promotion and education; policy refinement; DOH/LGU services planning, budgeting and coordination; and establishment of an NFP coordinating committee.

Training: She has conducted several NFP orientation workshops for DOH headquarters staff; has assisted in training DOH regional training staff including participation in workshops on LAM and LAM/NFP interface, and in second tier training of LGU staff including workshops on LAM and LAM/NFP interface. She has also been part of DOH "writeshops" to develop self instructional modules (SIM) and competency based curriculum for all family planning methods, and has drafted a SIM for NFP, to be included in the revised DOH training curriculum.

Promotion and Education: She provided major support to the DOH in the planning and implementation of NFP month in April. She

developed an NFP exhibit at the DOH information booth, oriented DOH staff who conducted NFP seminars in eight communities, organized four radio interviews and a scientific forum for government officials.

Policy refinement: Although the DOH has a policy supporting the availability of NFP along with other methods, it lacked specific guidelines for establishing NFP services which Ms. Rivera has now developed. These guidelines have been presented to the FP Accreditation Board for review and approval.

Planning and Budgeting: Ms. Rivera has worked with LGU plans and budgets to estimate demand for NFP services and help ensure that funds are allocated for NFP training and service installation. She has also developed guidelines for integrating NFP into individual LGU workplans.

NFP Coordinating Committee: The first NFP consultative meeting, convened by the DOH, was held in April. It was attended by 25 people representing GOs and NGOs interested in the mainstreaming of NFP. The primary purpose of the meeting was to update participants on NFP service issues and explore interest in an interagency committee to coordinate NFP training, IEC, policy development, research and services. A number of issues were discussed, and there was consensus for continuing to meet to explore improved information sharing and coordination.

In addition to activities undertaken by the in-country NFP coordinator, IRH staff conducted three TA visits to the Philippines (in August and October, 1996 and February, 1997). Ms. Seidman, IRH Associate Director, conducted the visits in August and February, and Dr. Marshall conducted the TA visit in October. Dr. Rebecca Infantado, Assistant Secretary of Health, also participated in the Division's end-of-project meeting and presented a paper on the Philippines' mainstreaming experience.

Technical assistance to PFNFP was provided in operations research for the development of an OR study to test models for mainstreaming and expanding NFP services in the public sector; in training DOH trainers in development of competency based curriculum and self-instructional

materials in NFP; in the management information system and using the MIS data for program monitoring.

Operations research: Both of Ms. Seidman's TA visits addressed the development of an OR study to test staffing models for integrating NFP into the public sector. The first visit involved a joint workshop with the Population Council and the development of a concept paper for an OR study. During the second visit, Ms. Seidman held a three-day working meeting with PFNFP area coordinators to spell out in detail criteria for selecting study sites and to elicit their suggestions and support for the OR intervention plan. Preparations for conducting the study have taken longer than expected, due in large part to difficulties in finding LGUs interested in participating who also meet the study site criteria. However, we expect to begin the study in the early months of the new project.

IRH is also collaborating with the Population Council on a Reproductive Health Awareness - male involvement OR study in Bukidnon province, Mindanao. The project will be conducted with the Kaanib Foundation, an agrarian reform NGO working with subsistence farmers, the vast majority of whom are men. Under the new project, IRH will design and carry out the project intervention in collaboration with the Kaanib Foundation.

Technical and Management support to PFNFP: In addition to assistance in OR, IRH also has assisted PFNFP in developing curriculum for training DOH workers in NFP, conforming with DOH requirements for accreditation. This was done directly during Dr. Marshall's TA visit and indirectly through our support of Ms. Rivera, who works closely with PFNFP in coordinating DOH NFP training. Although PFNFP is accredited in NFP training of NGO workers, its training of DOH personnel is not yet accredited. Training and technical assistance has also have been provided to PFNFP in installing a national MIS, developing program indicators and using indicators for program monitoring. Ms. Seidman conducted a two-day MIS workshop with area coordinators directed to helping them install a coordinated information system that includes the teacher's intake form and client log, as well as the supervisors' quarterly report. A

simplified MIS form was also designed for use by LGU providers.

ZAMBIA

With the completion of the Target Country Project in Zambia, administered by sub-contractor IFFLP, in March, 1996, the Institute's primary activities related to review and assistance with the MIS have been completed.

During this project, leadership of the FLMZ was successfully transferred to Zambian directors. FLMZ achieved a wide diversification of international sources of support, maintained a high level of NFP services for both new and registered NFP avoiders, and continued monitoring and collecting MIS data.

During this reporting period, the Director and Associate Director of the Division met with the director of FLMZ (while she was here attending the LAM conference) to explore possible areas of collaboration in the new IRH project.

Planned Activities: Possibilities for future work in Zambia include an OR study on NFP expansion and another on Reproductive Health Awareness during the AWARENESS project. An exploratory site visit will be scheduled in the early months of the new project, pending discussion with USAID/Lusaka.

(2) NFP Expansion Through Health Care Providers, ATLF, in Peru

This project, which was scheduled to end in February 1996, was extended until the end of May in order to complete the training schedule and finalize data collection on the new NFP clients recruited by trainees. From July 1993, when NFP training sessions began, until the end of February 1996, ATLF had trained 958 master trainers from seven different institutions: three universities (San Martin, Villareal and San Marcos); one major hospital (Santa Rosa); and five health/family planning NGOs (Caritas, Prisma, Planifam, INPPARES, and Planfami). Service statistics of NFP clients are presented in the MIS section of this report. This final report was issued in September 1996.

Planned Activities: No additional activities are planned with ATLF.

(3) Technical Assistance to Support Programs in NFP in Haiti

This activity was supported through a buy-in from USAID/Port-au-Prince. Both IRH divisions provided technical assistance to this project, although the BF and MCH Division coordinated the overall project. The purpose of the project was to introduce NFP (specifically the Cervical Mucus Method and the Lactational Amenorrhea Method [LAM]) into four pilot sites in Haiti. The project was officially launched in December, 1994. During the last reporting period, materials to teach NFP and FA were developed and field tested. Mrs. Jacqueline Le Blanc, an IRH consultant, assisted the Project Coordinator in evaluating teacher training and technical competence among the new NFP teachers trained. The Project Coordinator recently moved to a new position, but continues to influence national policy and is still committed to promoting NFP and LAM.

Planned Activities: This project is closed. No new activities are planned.

(4) The Management Information System for NFP Programs Pilot Project

In 1992, The Institute for Reproductive Health and the IFFLP developed a joint pilot project to encourage NFP programs to implement a Management Information System (MIS). Twelve programs participated in the pilot demonstration effort which was completed in March 1996, after three years of implementation.

Based on their history of successful utilization of the system in their programs five programs were continued for another year. Papua New Guinea, Zambia, Senegal, Burkina Faso and the Philippines began new agreements which went from April 1, 1996 to March 30, 1997.

During the reporting period, the IRH developed a report documenting the benefits pilot programs derived from using the MIS to monitor their

program and identifying areas needing strengthening.

The report provided examples of program accomplishments in

- increasing number of clients reached through targeted outreach
- improving the mix of clients served
- improving client retention during the learning period
- decreasing dropouts
- improving the client/teacher ratio
- increasing the percentage of clients becoming autonomous users.

The report used graphs and charts to illustrate these accomplishments and provided programs with an attractive document to demonstrate the benefits of the MIS. Two programs (the Philippines and Senegal) have also used the report in training workshops on MIS monitoring for their staff. This report has also served as the basis of a poster session Ms. Seidman presented at the National Council of International Health meeting in June.

During this reporting period, Ms. Seidman provided continued technical assistance on the MIS to the Philippine Federation of Natural Family Planning (PFNFP) during her April 1996 site-visit. She helped PFNFP revised the form and instructions, reviewed data reporting problems, and provided input on plans for an up-coming MIS workshop for supervisors.

BURKINA FASO: *Public Health Clinics and the Association pour la promotion de l'Action Familiale (APAF)*

This NFP program combines two different models of NFP services. In the capital city of Ouagadougou, three health clinics offer NFP services through regularly-salaried nurses/midwives whose duties includes teaching natural methods and fertility awareness. This is a typical health center program with a total of 7 NFP teachers.

In the rural diocese of Koudougou, 100 kilometers north of the capital, NFP services are offered to clients by volunteer church workers.

These two programs serve a clientele with different concerns. Due to the clinic's access to a large number of people, they inform more than three times the number of people than the volunteer program with less than one-third the number of teachers. The government clinics serve a high proportion of achievers/fertility awareness clients while in the parishes a high percentage of the clients are avoiders. The annual average number of avoiders recruited by salaried clinic workers and unpaid parish workers, however, was very similar.

THE PHILIPPINES: *Philippine Federation for NFP, Inc. (PFNFP)*

PFNFP has been a participant in the IRH pilot MIS project since 1993 when they implemented the NFP MIS. Although staff at the national, regional and local levels of the program have been trained and PFNFP has been collecting data regularly since 1993, they have made a number of changes in the MIS form. This has created problems in data accuracy and in comparing performance from one reporting period to the next. This has limited the utility of the MIS for program monitoring and evaluation. At the same time, PFNFP is committed to collecting service statistics and using the data for monitoring and evaluation. In fact, the frequent changes in the form can be seen as an indicator of their ownership of the MIS and their interest in developing a useful system.

MIS assistance to the PFNFP continues to be a high priority for both IRH and PFNFP. PFNFP is a rapidly growing organization which receives a large portion of its funding from the United Nations Fund for Population Activities (UNFPA). UNFPA funding has enabled PFNFP to expand its volunteer network nationwide and establish more than 20 People's Organizations (PO). The POs are affiliated with PFNFP, and although NFP instruction is a major part of what they do, they also carry out small enterprise and income generating activities. The NGO/NFP network has expanded rapidly. During this year, its active teachers increased from 210-349 and its client load increased from 3879-5632.

One of the priorities of Ms. Seidman's February, 1997 TA trip was to help PFNFP review and refine its MIS and select indicators that would be

monitored on a regular basis by PFNFP area coordinators. In a two-day workshop with PFNFP area coordinators conducted by Ms. Seidman MIS reporting forms were reviewed and revised. PFNFP's total information collection system was also reviewed to ensure that only needed information was collected. The system was reviewed at three levels: teachers, supervisors and headquarters. During this workshop, information collected by teachers was reviewed and the participants identified how they could monitor their work. The supervisors identified the information they needed to receive from teachers so NFP teachers' performance could be reviewed. We also identified the information that was needed at a regional and headquarters level of the program. Forms at each level were revised to ensure that the requisite data was being collected. A tiered system of data collection, reporting and monitoring was defined to streamline data collection and reporting and reduce data compilation responsibilities of volunteer teachers. Area coordinators also identified seven indicators they will use to monitor services, and a format for program monitoring was developed.

A second priority has been to help PFNFP transfer its capability to the public sector. PFNFP has also worked closely with the DOH and LGUs to help establish NFP capability at the local government level. It has trained DOH/LGU trainers in NFP and has assisted them to train service providers. MIS has been included in these training efforts. The MIS training, however, has been focused on helping providers complete the NFP portion of the FPHIS - the government's reporting system for family planning. Definitions for terms such as learning user and autonomous user (which are part of the NFP MIS) have been reconciled with FPHIS terms. In addition, an NFP reporting form has been developed for LGU providers who will participate in the OR study (which will be implemented under the new project). This form (developed during Ms. Seidman's TA visit in February, 1977) is simpler than the MIS form used by PFNFP. At the same time, it will provide information on clients and services that will be needed by the OR study being planned.

In summary, the MIS provides PFNFP as a tool for managing their rapidly expanding program. PFNFP

has been interested in using the MIS from the beginning of the pilot program though its utility for them has been limited by the continuing changes they have made in the reporting form. The area coordinators now appreciate the possible uses of the MIS and how it can help them handle their newly assumed regional responsibilities. Future efforts at refining the system and increasing its usefulness should be directed at area coordinators, who now have both the understanding and capability to use the MIS for effective program monitoring.

PAPUA NEW GUINEA: *Catholic Family Life Apostolate (CFLA)*

This Church-based NFP program is well integrated in 16 of the 21 diocesan family life programs. These diocesan programs, coordinated by diocesan family life personnel, are structured around parish, family-life core groups of trained volunteers.

Over the past few years, this program has grown substantially. The number of teachers has increased from 77 in 1993 to 190 in 1996. The number of registered avoiders also increased from 370 to 2,509 during this same period.

The program has experienced steady improvement in reporting. Almost all of its performance indicators also have shown improvement. The one exception, the decrease in the autonomy rate, is due to the program's focus on expanding its client base rather than providing strong follow-up. The program directors are very satisfied with how the MIS has helped improve the professionalism of their teachers and the quality of their services. Given the experience, we feel confident that the program will continue to use the MIS even though IRH support will not continue.

SENEGAL: *Association Sénégalaise pour la Promotion de la Famille (ASPF)*

Association Sénégalaise pour la Promotion de la Famille is a small NFP/FLE program carried out in Catholic Health dispensaries in a country which is over 98 percent Moslem. The program has been in existence for the last 15 years. It has operated on a voluntary basis until recently when it received supplementary funding. This enabled the program to

offer small remuneration to the NFP teachers. This has contributed to teacher motivation and decreased rate of attrition.

Although this program is small in terms of the number of teachers (25) and users (between 300 and 400), it has very successfully integrated the MIS in its NFP services. Improved efficiency and quality of NFP services can be observed in the fact that although there were fewer NFP teachers reporting in 1996, the number of registered avoiders increased slightly.

ASPF held an MIS training workshop for teachers in June. This will also strengthened MIS reporting and analysis and capability to monitor their service. ASPF has used the MIS and its indicators to help teacher supervision by pinpointing areas needing improvement. The MIS has been effectively institutionalized by ASPF.

ZAMBIA: *Family Life Movement of Zambia*

This is a moderate-sized, independent NFP program established in the early 1980s which has benefited from a substantial IFFLP/USAID support from 1984.

Program performance has remained stable, and most of the service quality indicators have remained high: the numbers of new user-avoiders stayed stable; the rate of unplanned pregnancies decreased; and the dropout rate decreased. It will be very important for the FLMZ to ensure strong follow-up and to clarify the status of LAM users once they resume cycling since breastfeeding clients represent a high proportion of their new client load.

It is hoped that the program director can continue her thus-far successful efforts toward financial sustainability and maintain a dynamic work force of qualified NFP teachers and supervisors.

Planned Activities: The experience gained from the MIS effort will contribute to the installation of an NFP client tracking and reporting system in NFP programs (which were not part of the pilot) which will participate in AWARENESS project activities. Assistance in the MIS will be continued, on an as-needed basis, for programs which participated in the pilot program, with particular emphasis to be given

to Senegal and the Philippines. In addition, a summary report of the accomplishments of the MIS experience will be disseminated to NFP programs worldwide, along with the MIS manual which will be expanded to include a section on using the MIS for program monitoring and evaluation. The AWARENESS project will also consider requests for technical assistance and training in the MIS from NFP programs interested in strengthening their management systems.

(6) Training of NFP Trainers in Lviv, Ukraine

A training-of-trainers took place in Lviv, Ukraine, in October, 1996. This training project was designed to allow as much sustainability as is possible. Trainees were existing trainers who hold key positions in professional schools who are responsible for developing curriculum at their institutions. The training took place at the Medical Institute, and involved participants from the medical, nursing, and midwifery schools. IRH consultants Dr. Celia Pyper and Jane Knight conducted the training. A follow-up visit is scheduled to evaluate the training and observe the new trainees conduct a training of their own.

Planned Activities: Materials for follow-up will be translated into Ukrainian. A visit and follow up training, which originally were scheduled for the Spring, are now scheduled for Fall 1997. This will be our final activity in the Ukraine unless additional mission funds are available.

B. Strategy: Conduct operations research to address questions of service quality and impact, and develop strategies to expand NFP in selected countries

(1) Operations Research for NFP in Philippines

The operations research study for NFP in the Philippines has become incorporated into a much larger initiative to test approaches for expanding NFP services throughout the country. For more information on the OR component to this project, please see the section for NFP Objective II, Strategy A, activity 1 ("Financial and Technical Support for NFP Service Delivery in the Philippines and Zambia").

Planned Activities: During the new project we will build on the groundwork which has been laid for finalizing the design for the OR study to test approaches for mainstreaming NFP. Ms. Seidman will visit the Philippines in August and will meet with DOH and LGU representatives to address some of the questions and concerns expressed about the study. We expect that a revised design will result from the meeting, and that plans for the study will move forward.

C. REPRODUCTIVE HEALTH AWARENESS ACTIVITIES

III. Objective: Increase FA/RHA in family planning and reproductive health programs

During this reporting period, the Fertility Awareness and NFP Division has continued to develop and refine the concept and applications of Reproductive Health Awareness (RHA), which is based on four conceptual pillars: body awareness/self-care, interpersonal communication, sexuality issues, and gender concerns. We have been working to communicate the benefits of this approach to all aspects of reproductive health to NGOs, CAs, and others in the field. In addition, we have been focusing on the development and testing of RHA curricula appropriate to different cultures, ages, and learning contexts. The Division has begun to offer use of the RHA materials developed in the last reporting period and to distribute brochures and concept papers that explain exactly what RHA is and how it can improve reproductive health throughout the life-cycle.

To support and encourage the adoption of a Reproductive Health Awareness approach in family planning and reproductive health programs, the Institute conducted a number of activities: 1) the revision of its RHA generic curriculum, 2) drafting and field-testing of various RHA education curriculums, and 3) collaboration with the CAs and NGOs with which the Institute works to develop and implement an RHA approach to their training and service delivery. These activities are detailed below.

A. Strategy: Design and test flexible RHA training and educational materials

Division staff continued to work with consultants Kimberly Aumack Yee and Anne Davenport, with intern Dale Saul in the development, testing, and revision of RHA materials including major revision of the generic curriculum, adapting the generic curriculum to an adolescent focus, and creating a curriculum for 5th and 6th graders with the RHA focus on avoidance of high risk behaviors. The curriculum was also adapted and presented to medical students and their faculty at the Pontificia Universidad Católica del Ecuador, the first time the curriculum has been tested in pre-service.

The generic curriculum which was tested in Peru last year was revised and rewritten with the assistance of Kimberly Aumack Yee. The previous version of the curriculum was too content intensive without having enough training time to assure mastery of the qualitative material. This problem was solved by making the training very experiential with many exercises, debates, and other highly participatory activities which focus on the philosophical aspects of body awareness, gender awareness, interpersonal communications, and integration of sexuality.

This has resulted in a much more successful way of meeting the learning objectives in spite of limited training time. The newly-revised generic RHA curriculum was field-tested in Bolivia with the assistance of Anne Davenport. Portions of the generic curriculum with a heavy adolescent focus were used in Ecuador with Kimberly Aumack Yee.

Planned Activities:

The curriculum for 5th and 6th graders is still under development with Dale Saul. It will be field tested in a Baltimore City Boy's and Girl's Club summer camp in July/August. The final version of the generic curriculum will be finalized during the summer and translated into Spanish. The training strategy and evaluation strategy for RHA training activities will be refined and finalized so that cross-country comparisons can be derived.

B. Strategy:

RHA Curriculum for Trainers

During this reporting period, a revised training curriculum of RHA for trainers has been developed and pilot tested in Bolivia with seven NGOs which are both experienced and fledgling partners in the reproductive health arena. The NGOs were CARE, Centro de Investigaci3n Educat3n y Servicios (CIES),(SACOA), Centro de Promoci3n Agropecuaria Campesina (CEPAC), PROMUJER, PROSALUD, and Catholic Relief Services (CRS). The organizations were at very different stages of development, and their diversity highlighted the various levels of need for technical assistance required to implement the RHA philosophy in their program goals, trainings, materials, etc.

RHA Curriculum for Adolescents

The generic curriculum was adapted to focus on adolescents, their growth and development, and their particular education and health service needs. This program was taught to selected clinical sites from Centro Medico de Orientacion y Planificacion Familiar (CEMOPLAF) in Quito, Ecuador, which will serve as the first implementation sites for their new adolescent-focused reproductive health service project. After three days of adolescent content with a combination of lectures and experiential exercises, the clinic teams developed an implementation strategy for incorporation of "adolescent friendly" services for both boys and girls.

RHA Curriculum for Pre-adolescents

During this reporting period the IRH has progressed in its development of a pre-adolescent RHA curriculum founded on the four conceptual pillars. Before we begin extending the curriculum to our projects, we plan to gather initial feedback through a field test with a high-risk population of 5th and 6th graders in a Baltimore City Boy's and Girl's Club. There is currently a strong first draft which is completing external review by our partners in Baltimore. While the Institute's primary purpose for this effort is to gain practical experience and an opportunity for testing a curriculum which we subsequently can utilize in our projects in developing countries, we are working with our collaborators to seek ongoing funding for this course so that they can offer it several times during the school year and move the course into "sister" programs within the area. This group makes an

excellent partner as they have the infrastructure, facilities, and access to children.

We are attempting to build in some creative training methodologies. For example, the "pre/post test" is a game board using cards which require the correct answer to advance on the board. There are two players per board who have the opportunity to answer approximately fifteen questions each in a half hour of playing time.

Planned Activities:

We will complete the curriculum revisions early in the new project year. Much of what was previously called trainer's notes will be removed, additional material added, and training modules created for the four major pillars. This material will then be given to participants at trainings so that they have some up-to-date content material to take with them as a reference. This material will undergo internal and external review. Revisions will be done and the curriculum plus modules will be translated into Spanish. This will be shared with all the organizations which have served as pilot sites for testing both versions of the RHA curriculum.

C. Strategy: Collaborate with other CAs in RHA

At the RHA training in Santa Cruz, Bolivia, Cecilia Huasebe, previously of CIES, served as co-trainer. She also serves as co-trainer for IRH trainings with CARE and other NGOs. Her knowledge of the RHA approach promotes its diffusion into other programs, as she is an active and well known consultant.

The IRH has been working with other CAs in each place where the approach has been taught in an effort to brief them on our activities and approach and to benefit from their expertise and knowledge of the individual countries. The RHA adolescent focused training for CEMOPLAF included guest presenters (experts in adolescence) from Federaci3n Internacional Para Adolescentes (FIPA) and Centro Obstetrica Familiar (COF). Dr. Susana Guijarro served as a co-trainer for the training, sharing her knowledge and experience of the growth, development, and problems of adolescents in Ecuador.

Dr. Guijarro also served as co-trainer for the pre-service RHA training given to medical students, their faculty, and community health workers at the Pontificia Universidad Católica del Ecuador (PUCE)

The Boys and Girls Club project in Baltimore, Maryland with Mrs. Marcine Barnes again uses the model of involving collaborators at the onset and moving the program into an organization where the infrastructure is sufficient to support ongoing implementation long after IRH has withdrawn its financial support.

IV. Objective: Determine the impact of Fertility Awareness/Reproductive Health Awareness training and education on reproductive health

Reproductive Health Awareness is an important approach to education in many areas of reproductive health care. In our work in the field with RHA, we have found that RHA is an education-based method that has the potential to empower the individual in the areas of social interaction, interpersonal relationships and physical health. The Division is therefore evaluating the impact of such an approach to determine the extent of its capacity to promote more healthy and self-assertive behaviors and attitudes. We are also interested in learning more about how an RHA strategy can be concretely implemented in a diverse range of contexts, from health clinics to women's groups to schools to community-based talks. Our strategies and activities are described in detail below.

A. Strategy: Conduct pilot studies of selected aspects of FA/RHA impact

(1) Pilot Study to Improve FA/RHA in Indigenous Communities of Chuquisaca, Bolivia

In Bolivia, the Institute has been providing technical assistance to CIES, including development of an educational package to support reproductive health services to rural indigenous communities.

During the period July 96-March 97, CIES:

- 1) Developed, tested and produced three educational modules. The RHA concepts grouped into the three modules include: body awareness (learning about myself), self care, family planning and STDs (learning to care for my body) and maternal health (learning to care for myself and my baby). Additionally, the four RHA pillars were incorporated into the materials by varying degrees. The concepts included in these modules cover the full range of knowledge, attitudes, skills, and practices considered necessary for full fertility awareness and healthy sexual and reproductive behaviors. CIES was able to incorporate aspects of interpersonal communication, gender and sexuality-based topics into research completed in the target communities, through interviews and focus groups.
- 2) Designed and delivered training for the eight-member team of CIES-paid educators. This training included: (a) orientation to the RHA philosophy and topics; (b) reproductive health content areas such as family planning, STDs, RTIs, risk indicators during pregnancy; and (c) teaching methodologies and facilitating skills. The educators were given teaching guidelines and drafts of the RHA training module flipcharts to use and test during the first round of educational sessions in the communities. The educator's guideline contains specific learning objectives, basic concepts, timing, materials, group activities, and observation guides for evaluation of participants learning progress.
- 3) Devoted a significant amount of time to lobbying for the reproductive health project in the various target provinces. Sensitization meetings and informational sessions were held throughout Chuquisaca with NGOs
- 4) Developed evaluation instruments for training and education, including pre- and post-tests at the educator and promoter level, and observation guides at the promoter level.

Two pilot provinces were selected to test RHA education. These communities are served by a local NGO, Proagro, which has facilitated the entrance to the local population.

Between January and April, 1997 CIES has completed the following in the pilot communities:

- 5) Provided RHA education to community members in two RHA modules: Body awareness and self care, and maternal health. It is estimated that 22 countries have participated in group sessions.
- 6) Completed evaluation of training to educators in pilot and non-pilot areas. Evaluated in-class education at the educator and promoter, for level of knowledge and skill acquisition with the community members participating in the training. The latter has been completed through observations done by the educators during sessions held by the health promoters, as well as group exercises guided by the promoters.

The above six activities were monitored by Institute staff and consultants through correspondence and site visits conducted in the months of September, October and November of 1996 and March of 1997. The September 1996 field visit by Institute staff member Jeannette Cachan was centered on completing the educational strategy for CIES' overall reproductive health project and to prepare plans for completing a trainers' manual, promoter guidelines, training and educational activities, and technical assistance plan for the following months. The October site visit by Institute consultant Ann Davenport, based in La Paz, was devoted to reviewing the maternal health module and providing support to CIES in the training of educators. During a November trip to Bolivia to organize NFP activities with another NGO, Jeannette Cachan briefly visited the Sure site to observe the progress of the CIES project. During this visit an evaluation plan was developed which included a list of indicators and evaluation instruments. Additionally, the scope of work, timeline and budget of the project were revised and a cost-extension to the project from March to May, 1997 was granted to CIES. The same Institute staff completed field visits

to the project sites in March, 1997, to observe community education and training of health promoters. While in La Paz, the final production of the educational materials was supervised and adjustments made to the final version of the three sets of flipcharts and promoter guides. A meeting was held in Sure with local collaborating NGOs, community leaders and government officials to present and promote CIES' RHA materials.

In the last half of 1996, other local institutions in Bolivia learned of the Institute's work with CIES and CRS and expressed interest in becoming familiar with the RHA approach. In light of this interest, a previously planned RHA training for CIES and CRS was opened to these NGOs. Opening the training to other institutions was appropriate to the extent that it allowed the Institute to identify opportunities for expansion and application of NFP and RHA during the next five-year cooperative agreement with USAID. Through PROCOSI --a local NGO who coordinates USAID-funded child survival and reproductive health activities-- the Institute invited a group of its affiliates to the four-day RHA training. This training is considered an introduction of the RHA perspective to institutions working in family planning, community development and child survival who work or have recently began working in reproductive health at the community level.

The four-day training seminar for selected Bolivian organizations working primarily with rural populations, was held in Santa Cruz, Bolivia from March 3-6, 1997. The purpose of this training was to provide participants with (a) a body of knowledge on RHA on which the Institute's materials are based; (b) practical applications for incorporating RHA into their programs and settings; (c) tools to use in RHA education and training and how to use them; and (d) opportunity to develop a training plan for their organizations. Participating institutions evaluated their programs within the RHA framework and identified areas to infuse with this perspective.

Planned Activities:

The RHA education project with CIES has been successful in opening the way for CIES' introduction of reproductive health services to

selected rural Quechua communities. Furthermore, it is considered that an educational strategy which is based on the RHA approach will adequately support the introduction of services. CIES' reproductive health services project has been well received by the NGOs already in the area, community leaders and health officials in the region.

Future activities under this project include:

- a) Completion of educational activities in the community until the three modules have been applied in the pilot areas. This activity is on-going, and completion is expected by August, 1997.
- b) Presentation of refresher courses for health promoters to reinforce RHA messages and strengthen their facilitating and educational skills. This activity also on-going until September, 1997.
- c) Training of local health providers from the Secretaria Nacional de Salud who is supporting CIES' service delivery efforts in the region. This activity is planned for July and August, 1997.
- d) Completion of a final evaluation of impact of RHA education in the pilot communities. This activity is planned for the months of September and October, 1997.
- e) Preparation of final report by November, 1997.
- f) Follow-up through PROCOSI on utilization of the RHA approach by the NGOs participating in the RHA TOT completed in March in SantaCruz.

(2) Pilot Study to test the impact of FA/RHA education on Adolescents in Mexico (MEXFAM)

The Institute worked with MEXFAM for two years to develop and test an educational model to increase fertility awareness among Mexican youth and provide young adults with the basic information they need to understand their own bodies and to make informed decisions about their reproductive health. A curriculum was developed with the

overall objective to provide adolescents with key information and knowledge about sexual and reproductive health; create opportunities for them to analyze and discuss these topics as well as examine their own attitudes and values; and enable them to practice the development of skills which can directly benefit their reproductive health. This school-based curriculum consists of five educational sessions of four hours each (or 10 sessions of two hours each). There is also a sixth session of 2 to 2½ hours for evaluation and application of the course to both the individual and group context.

The topics covered in the curriculum include: 1.) puberty, body image and gender; 2.) male and female reproductive systems and reproductive and sexual health awareness; 3.) adolescents and sexual relations; 4.) what our bodies can tell us; and 5.) protecting our reproductive health and decision making. The course utilizes a very interactive, participatory methodology to engage students in a variety of educational activities. It attempts to develop gender awareness by examining the different realities of men and women. It seeks to integrate sexuality in a way that favors one's ability to enjoy a satisfactory sexual life without health risks. It also attempts to develop body/self awareness and promote the importance of understanding, valuing and taking care of one's own body. In addition, the curriculum tries to enhance interpersonal communication with the purpose of facilitating the expression of feelings, desires, and needs regarding one's own sexual and reproductive health.

Focus groups were conducted with adolescents to elicit information about the students' knowledge, beliefs, attitudes, skills and practices regarding fertility awareness and reproductive health. The results of this exercise served to guide the design of the curriculum. Once the curriculum was developed, pilot tested and revised, a Training-of-trainers course was conducted to prepare MEXFAM instructors to implement the Reproductive and Sexual Health Awareness curriculum in local schools. Courses were conducted in 8 different regions in México (Nezahualcoyotl, México State; Tlalpan, México City; Oaxaca, Oaxaca; Guadalajara, Jalisco; San Luis de la Paz, Guanajuato; Tuxla Gutierrez, Chiapas; Durango, Durango; and Morelia, Michoacán). Approximately

25 courses were conducted, and more than 850 students in the experimental group completed both the pre test and end-of-course post-test.

During this reporting period:

- a) The educational intervention was tested to determine its effects on students. The study used a pre-test which was administered prior to the course, a post-test which was administered on the last day of the course, and a second post-test administered three months after the course (to begin assessing the impact of the curriculum over time). The 850 students participating the new curriculum were selected randomly and matched with over 300 students in control groups. Students in the control group completed only the pre-test and the second post-test (which was administered three months after the experimental group completed the course.)
- b) The curriculum was evaluated by the students in the experimental group who also completed a questionnaire to provide feedback on the content information, educational activities, support material and instructor effectiveness for each of the educational sessions. In addition, questionnaires were completed by the MEXFAM instructors to determine their perception of the utility and effectiveness of each of the educational sessions, and to elicit their recommendations for further modification of the curriculum. Supervisors of the MEXFAM instructors observed selected educational sessions and completed questionnaires to document their assessment of the quality of teaching by the MEXFAM instructors, the impact of the course on the students, and recommendations for modifications or changes to the educational model.

Overall, the instructors and supervisors evaluated the course positively. Many described it as "new", "magnificent" and "entertaining". One of the obstacles to conducting the course in the schools was the need for 22 to 23 hours of time to conduct the entire curriculum. It was a challenge for many instructors to negotiate this much time. There was also a need for additional support material to enhance the educational sessions. Students did not always complete the

homework assignments, or were reluctant to discuss them in class. This may have impacted their ability to optimally integrate the class activities into their every day lives. In addition, there was also an expressed need to expand the intervention to include work with parents and teachers.

- c) Preliminary analysis of results was completed. Although the three-month impact evaluation has not yet been completed, preliminary results of the pre-test and the end-of-course post-test, along with the questionnaires completed by students, instructors and supervisors have been analyzed.

The pre- and post-test analysis looked at the degree of change in students' knowledge, analysis and reflection, attitudes and skills for each of the five educational sessions of the curriculum. In general students entered the course with previous information on puberty and the reproductive system, and there was little increase in information in some of these areas. However, there was an increase in understanding when a woman is fertile during her menstrual cycle and the role of cervical mucus and fertility. There was also an increase in information about ways to keep the body healthy, how to reduce the risk of sexually transmitted diseases and family planning methods. In the area of attitudes and beliefs, students reported an increase in the importance of observing and checking one's own body, and the importance of avoiding high risk sexual behavior. In the area of skill development, students reported an increase in observing their bodies, including a strong increase in the percentage of girls who observed cervical mucus secretions. There was also an increase in the percentage of students who reported doing a testicular or breast self-exam each month.

Students reported that they seldom communicated with parents, friends, partners, teachers or health providers about many of reproductive health areas on the questionnaire. There was very little change in this area following the intervention. In fact, in both the pre- and post-test results students indicated they

were less likely to talk with a partner about these topics than with parents, teachers, friends or health providers. There was no change in the percentage of students who reported sexual activity in the previous six months and no change in the percentage who considered abstinence as an acceptable option for them.

The Reproductive and Sexual Health Awareness curriculum of MEXFAM not only increased knowledge, but also resulted in a shift of certain attitudes which support good reproductive health and fostered the development of selected skills important for maintaining good reproductive and sexual health throughout the life span. In areas where taboos against looking at and touching one's body are very strong, this course increased students' desire and ability to observe and understand changes in their own bodies. Following the course, an increased percentage of students reported observing and monitoring changes in their bodies. A greater percentage also reported conducting monthly breast or testicular self-exams, which are examples of self-care techniques that can enable individuals to detect a possible health problem and seek care early on.

Although activities to build communication skills were included in the curriculum, there was little change in students' experiences in talking with others about important reproductive health topics. It is possible that a change in this area may be noted during the analysis of the three month, post test questionnaires. However, there appears to be a need for additional work in the area of interpersonal communication and gender issues. The design of additional interventions, which are developed specifically to enhance interpersonal communication (especially between couples) regarding a variety of reproductive health topics could be very beneficial.

Planned Activities

An addendum to the final report with results of the evaluation of the control groups is expected to be completed by MEXFAM in August. This activity, although not currently covered under a cost subagreement, will be carried out by MEXFAM as

part of an interinstitutional memorandum of understanding.

(3) Pilot Study of FA/RHA Impact on Indigenous Adolescents in Ecuador (CEMOPLAF)

CEMOPLAF, the Institute's implementing partner organization in Ecuador, has been a leader since 1974 in providing family planning services through its own medical centers, associated health care providers, community posts, and a variety of counseling services. In 1995 this NGO joined with IRH/GU to implement a pilot project to increase the reproductive health knowledge of adolescent boys and girls. The project has provided a wealth of information concerning the reproductive health problems and understanding of 14- to 16-year-old adolescents and the means by which fertility awareness can best be enhanced through secondary school curricula.

During this reporting period CEMOPLAF carried out the final phases of the curriculum development process and impact and process evaluation activities. The Fertility and Sexuality Education in-school curriculum was adjusted incorporating information obtained from the evaluation as well as from the students' and teachers' feedback on the course content and methodology. Curricula development also included development of an outline for younger adolescents ages 11-14. Development of educational materials for this age group is based on input from parents and students obtained during interviews and course evaluation.

The FA Education pilot project was carried out as an operations research study and was completed in May, 1997 with a meeting to disseminate the results of the study. The pilot activity began with a KAP study of fertility awareness among adolescents and their teachers and parents. Based on the results of this study, 24 themes were developed for inclusion in the curriculum of 4 high schools. Themes covered the full range of knowledge, attitudes, skills, and practices considered necessary for full fertility awareness and sexual and reproductive behaviors. The initial study found that knowledge of one's body, self-esteem, self-observation, values, STDs, and genital hygiene were the least developed themes among adolescents. Only 37% of these

students possessed sufficient knowledge, attitudes, skills, and practices to be considered capable of adequately managing and caring for their fertility and sexuality.

The 24 themes were grouped into 6 modules: communication, self-esteem, values, fertility, sexuality, and sexually-transmitted diseases (STDs). These themes were packaged into a course of one-hour weekly sessions for the whole school year. Four schools were picked for introduction of the new curriculum, and four others constituted a control group. A total of 1103 students participated in the pilot activity, 502 of whom received the new curriculum (220 girls, 282 boys). Only the third and fourth secondary grades were included in the project (9th and 10th grades). Schools were picked to include a wide range of student types: coed, non-coed, urban, rural, lay, religious, public, private, indigenous, and mixed race (mestizo).

Teachers were trained and equipped with a manual and implementation guides. Each guide contained the theme in question, specific objectives, basic concepts, timing, materials, classroom activities, evaluation methodology, and homework modules.

Four hypotheses and 12 dependent variables were selected by CEMOPLAF for testing during the pilot project. The four hypotheses grouped the 12 dependent variables under knowledge, attitudes, skills, and practices.

Following the school year, a post-test was given to the students involved in this pilot activity, both experimental and control groups. It was found that there were significant changes in knowledge, attitudes, and skills among students receiving the course. These changes were all significant statistically at the $p < .05$ level.

On the other hand, changes in sexual practices were not statistically significant. Practices in this study include: delaying first coitus; not having unforeseen or casual coitus; not having unplanned pregnancies; not having abortions; not having unplanned children; not engaging in unsafe sexual practices. Two reasons may be put forward to account for significant change in those elements felt to lead to changed practices, but not in the practices themselves. It is too early to expect knowledge,

attitudes, and skills to be translated into significant change, particularly those involving unplanned pregnancies and children. It is necessary for the lessons learned to be carried forward into later adolescence where pressures for sexual activity are likely to be considerably greater.

An important achievement of the project was CEMOPLAF's ability to approach and secure the support of educational authorities at the provincial level and the Ministry of Education and Culture (MEC) at the central level. Some of the direct outcomes of this project include the official endorsement of the curriculum by the MEC and adoption by numerous schools in Quito.

An end-of-project meeting to share the results of the project with the education, family planning and NGO community was held in April, 1997. This meeting was attended by parents, school officials, MEC representatives, cooperating institutions, local non-governmental organizations and international agencies in Ecuador. Evaluation efforts included documentation of impact and the process of implementing FA education in an in-school sexuality program. Findings presented at the meeting pointed to the value of the evaluation process for revising the school curriculum and to identifying avenues for future action in CEMOPLAF's work with adolescents. The results of CEMOPLAF's experience, which were thoroughly documented and shared at the end-of-project meeting, will serve other groups interested in carrying out sexuality education for youth in the future.

During implementation of the Fertility Awareness education project, CEMOPLAF identified the need for reproductive health services and the lack of services available for adolescents. CEMOPLAF also recognized the need to create new services and/or make existing services more acceptable and accessible to the adolescent population. As a result, CEMOPLAF has been more interested in responding to the need for adolescent reproductive health services by formally developing model clinics at select sites and by offering additional educational programs, specifically designed to meet the needs of you adults.

For the continuation of activities with CEMOPLAF, a follow-on project is being contemplated to develop clinical services for adolescents only in addition to educational activities. Before initiating the follow-on activities, it was deemed appropriate to present CEMOPLAF with the Institute's Reproductive Health Awareness approach, a new comprehensive approach to health education and services. The RHA approach developed by IRH is currently being implemented by various programs in Latin America.

An Institute training in RHA was tailored during the month of April to fit the particular needs of CEMOPLAF in the area of adolescence. The five-day training was completed during the week of May 5-9, 1997 and delivered to CEMOPLAF's health, counseling and educational personnel from six sites. During this training the Institute worked with CEMOPLAF on organizing service delivery for adolescents and on curriculum development for youth ages 11- 13.

Planned Activities

In terms of concrete actions for future collaboration between IRH and CEMOPLAF, discussions have been underway regarding follow-on activities for adolescent education and services. Based on results from the FA project ending in May 1997, two main follow-on activities were identified to be carried out in two stages. Between July-September, 1997 curriculum development for youth 11-13 of age would be carried out with technical oversight from IRH. From September 1997 on, it is envisioned that IRH would consider providing technical assistance to CEMOPLAF on the development of adolescent reproductive health services in pilot sites. It is expected that this technical assistance will be defined after CEMOPLAF has developed a integrated strategy for working with adolescents, which includes both education and service components.

As part of the Institute's RHA training, CEMOPLAF began developing such strategy on which a formal proposal for the Institute's support will be delivered by June 30, 1997. IRH would review the strategy and the proposal in light of the scope of work under the Institute's new Cooperative Agreement with USAID and determine the nature and extent of the

support to CEMOPLAF. A formal proposal for USAID/Ecuador and Washington consideration and approval would then be prepared by the Institute in August, 1997.

(4) Pilot study to Determine the Impact of FA Education on the Knowledge, Attitudes, and Behavior of Condom Users

This study is being carried out at Oxford University under the direction of Professor Martin Vessey and Dr. Celia Pyper. The study is a prospective, randomized clinical study that will assess the affect of Fertility Awareness education on couples who use condoms to avoid pregnancy. Couples who used condoms as their primary method of family planning were recruited into this study. Couples are followed for four cycles to gather baseline data relating to intercourse and condom use patterns. Then couples are randomized into one of two groups: one half of the couples receive Fertility Awareness education while the other half do not. The couples were followed for four additional cycles to determine the impact of Fertility Awareness education on the behavior of condom users. Risk taking, patterns of condom use, and attitudes about using condoms were assessed. The data set will provide information relating to the following: 1) frequency and timing of unprotected intercourse (before and after receiving Fertility Awareness education), 2) attitudes toward risk taking and using condoms to avoid pregnancy, and 3) attitudes about Fertility Awareness. In addition, both the intervention and non-intervention groups will be assessed for their level of Fertility Awareness and for their ability to apply this knowledge personally.

As of January 30, 1997, 70 couples had been admitted into the study. The recruitment rate increased significantly since the last reporting period, and the overall continuation rate is good. Of the 70 couples recruited, 11 have had exit forms completed, 29 others have completed the study, and 12 clients have discontinued. Data entry is proceeding, and preliminary analyses of the first 54 couples recruited has begun. Some of the preliminary results are as follows:

Of all the couples recruited, the data from 37 is available for this preliminary analysis. Of these 37:

- Intercourse occurred on 986 occasions
- Intercourse using a condom occurred 775 occasions = 78.6%
- Intercourse without a condom occurred on 211 occasions = 21.4%

Of the condom only group, that is, the group that did not receive Fertility Awareness Education during cycles 5-8, data from 37 couples is available. Of these:

- Intercourse occurred on 434 occasions
- Intercourse using a condom occurred 392 occasions = 90.3%
- Intercourse without a condom occurred on 42 occasions = 9.7%

In the condoms only group during the first four cycles:

- The number of women having at least one episode of protected intercourse = 33
 - The number of women having at least one episode of unprotected intercourse = 8
- One quarter of the women had at least one episode of unprotected intercourse.

In the condoms only group during the last four cycles:

- The number of women having at least one episode of protected intercourse = 32
 - The number of women having at least one episode of unprotected intercourse = 8
- One quarter of the women had at least one episode of unprotected intercourse.

In the fertility awareness education group during the last four cycles:

- The number of women having at least one episode of protected intercourse = 32
 - The number of women having at least one episode of unprotected intercourse = 24
- Two thirds of the women had at least one episode of unprotected intercourse.

Since this data is preliminary, we have been unable to analyze when intercourse is taking place during the cycle. At this point, however, it seems the fertility awareness group is taking more risks, even before the FA education. The effect on the education had been for them to have intercourse without using a condom on an increased number of occasions.

Planned Activities: Data will continue to be collected until completion of the study time period. After the data has been entered/cleaned, the final analyses will be carried out.

(5) Teen STAR Program, Santiago, Chile

During the past reporting period (1/1/96-6/30/96), IRH completed analyzing data for the second year of the adolescent Fertility Awareness project in Chile. This program used the values-based, internationally-tested Teen STAR curriculum that emphasizes adolescent abstinence. We wanted to find out what, if any, effect program participation had on the attitudes and behavior of Santiago students. A total of 600 students--from 10 different schools--participated in program and control groups. Due to the number of male-only schools involved, 67 percent of the sample size was male. The sample included a diverse range of students from the lowest to the highest socio-economic classes, although individual class-sizes varied. This, of course, resulted in some contributing a greater proportion of the overall sample than others.

A pre-test administered to all participants found that 22 percent of control males, and 16.7 percent of control females, had already initiated sexual activity. Nineteen percent of program males, and 12.7 percent of program females, had as well. This difference was kept in mind when interpreting the statistical analysis of the data. Transition rates measured by a post-test after the intervention revealed that 16.3 percent of the male control--versus only 10.65 percent of program males--had begun sexual activity since the pre-test. For women these figures were even more pronounced, with 18.4 of control females initiating sex while only 5.6 of program females did. Statistical analysis shows these to be significant differences, but there was some concern that the absolute numbers that these percentages represent were too low to be interpreted as an unequivocal success.

Although the Teen STAR program did not appear to have any real effect on discontinuation of sexual activity (defined as no sex for previous three months), it did seem to produce a change in attitudes among those who delayed initiation. When students are surveyed in questionnaires regarding their reasons for delaying initiation of sexual activity,

they can choose from a list of potential explanations. Some of these reasons, e.g., "it is against my religion", "I think it is immoral", can be broadly classified as external influences. The other reasons, e.g., "I do not want to get (someone) pregnant", "I don't feel I am ready", could be referred to as internal reasons. Hypothesizing that internal reasons have a more lasting and deep effect on student behavior, program coordinators were interested to discover whether there was any change in the reasons given for delaying sexual initiation.

The data indicate that there was a shift from external to internal reasons for students to delay sexual activity. There was, for instance, a 10 percent increase among program group females in giving "not wanting to get pregnant" as their reason. A sharp increase was found in the percentage of program students responding that they "didn't feel they were ready:" from 14.9 at pretest to 27.5 percent at post-test. In addition, the percentage of students who gave moral or religious reasons for delaying initiation actually decreased. If the hypothesis that internal reasons are more influential than external ones in predicting behavior, these attitudinal findings should be significant for the long-term reach of the program on student sexual activity.

In this reporting period, aggregate data for both years was analyzed to get an overall picture of program efficacy and to increase the sample size. An end-of-project meeting to disseminate the results of this study was held in September, 1996, within the framework of the Genetics and NFP Conference held by the Catholic University of Chile. Pilot schools participated in this event to present their Teen STAR experiences to other schools and educational institutions.

Planned Activities: Results from this project will be written up and submitted for publication.

(6) Reproductive Health Awareness Training and Education in Peru

A fertility awareness and NFP Division technical advisor visited the Peru RHA sites in September of 1996. Monitoring and technical assistance was provided to ongoing pilot projects throughout the

year. These pilots were developed during the February/March 1996 RHA training in Lima.

The PRISMA/Trujillo site made excellent progress in the development of an RHA curriculum for their health promoters. The community's positive response to a greater diversity of health discussions (previously reserved only for FP) led to greater interest in clinical services and an increase in referrals for three consecutive months. The advisor attended a mother's club presentation with community members. This was extremely successful, with considerable participation and high attendance (over 20 women and numerous children). This group completed their trainer's manual and tested it with their promoters.

The pilot for the Ministry of Health underwent significant difficulties. In trying to provide orientation to midwifery students, the trained team members worked almost exclusively at night and often faced redeployment. One of two groups was successfully organized.

The Manuela Ramos project suffered from long absences of key personnel due to illnesses. In spite of this, the group pilot tested its materials with their community promoters and developed an RHA STD focus trainer's manual, community flipchart, and counselor's hand-held flipchart. They are currently completing final revisions on these products.

D. INFORMATION DISSEMINATION AND TECHNICAL ASSISTANCE FOR NFP AND RHA

V. Objective: Provide materials and technical assistance to USAID, CAs, and others to increase their understanding of, support for and ability to provide NFP and RHA services

A. Strategy: Disseminate materials for laymen and scientific audiences that explain and promote NFP and RHA

The Division continues to play a unique role in providing informational, educational, and scientific materials on NFP and RHA to reproductive health organizations, family planning service providers,

health care professionals and students, and other USAID cooperating agencies. In addition to the NFP materials which the Institute continues to produce, improve and distribute, we have begun to distribute RHA materials as one component of our new and evolving initiative in that area.

(1) *NFP Modular Slide Set*

Distribution of the slide show continued. The English and Spanish versions, particularly, have been in high demand. Fewer requests have been received for the French version.

Planned Activities: A larger advertising campaign will be mounted via mailings, meetings and conference exhibits. The Internet will also be explored as a low-cost medium for broadcasting the availability of the slide set.

(2) See section B, I, 4 (a)

(3) *Public-Private Partnerships as an Approach to NFP Expansion*

The paper stimulated by the 1992 IRH workshop on approaches to expanding Natural Family Planning services, "Public-Private Partnerships: An Innovative Approach to NFP Expansion," remains a timely discussion of the service-delivery success that private-public collaboration makes possible. The paper focuses on the contribution that each sector brings to the partnership: NGOs provide training, personnel, referrals, and high quality of care, while public organizations provide broad access to clients, credibility, and a full range of services. As a result of partnership, clients receive better service, increased choices, and educational opportunities that benefit their reproductive lives. This paper continues to be requested by program managers and policy makers worldwide, and the FA/NFP Division continues to offer its assistance to organizations interested in public-private partnerships.

Presentations on this topic were presented at the Division's end-of-project meeting in April. These presentations discussed the experience of two of the groups, the Philippines and Italy, that participated in the 1992 meeting.

Planned Activities: The IRH will distribute the findings from these activities in a special issue of *Advances in Contraception*. The public-private partnership document will be used in policy work under the new project.

(4) *Group Teaching NFP*

In 1995, Dr. Gertrude Ihenacho, formerly the Primary Health Care director in the Ahiara Diocese of Nigeria, revised a paper written by Myrna Seidman on group teaching of NFP. The article focused on a pilot project, conducted by Action Familiale in Mauritius, which developed, implemented, and evaluated a model for group teaching of NFP. Dr. Ihenacho expanded the scope of the paper to incorporate a survey of the literature of other groups' experiences with group teaching.

Planned Activities: The paper will be submitted to journals for publication.

(5) *Natural Family Planning: Current Knowledge and New Strategies for the 1990s*

These conference proceedings continue to be widely distributed at major meetings and in response to numerous requests from individuals. Numerous copies were disseminated at the APHA and the NCIH conferences.

Planned Activities: Distribution of both volumes of the proceedings will continue, although it will be largely supplanted by the new issue of *Advances in Contraception*.

(6) *Glossary of NFP Terms*

This glossary provides a common terminology for the NFP field. It also includes vocabulary from Fertility Awareness- based family planning methods, and it gives figures and terms related to LAM. The glossary is one of the most frequently requested documents put out by the FA/NFP Division, particularly the French version. An NFP program in Honduras requested a bulk shipment to provide the Spanish version to its personnel. All three translations--English, French, and Spanish--were distributed at the APHA and NCIH conferences.

Planned Activities: Distribution of the glossary will continue. It will be updated and a new edition will be published under our new project.

(7) *Guide for NFP Trainers*

The Guide continues to be one of the Division's most frequently-requested items. It is an excellent resource in planning, implementing, and evaluating training courses for NFP instructors.

Planned Activities: Revision of the Guide to include updated information and new sections on Reproductive Health Awareness will occur in the AWARENESS project.

(8) *NFP Brochure*

Requests from callers, conference attendees and Institute correspondents have made the NFP/FA Division aware of the need to provide a simple, generic client-brochure that explains the basics of what NFP is, how it works, and what sort of issues couples need to think about when considering it as a family planning method. In 1996 Division staff began work on such a brochure. It describes NFP and how it works, addresses issues such as efficacy, safety and abstinence, and provides the reader with references if they are interested in learning more or in finding an NFP program or teacher. During this reporting period, a draft of this brochure was developed and distributed via mail, clinics and conference exhibitions.

Planned Activities: The brochure will be received based on the feedback received and included as one of our generic materials in the AWARENESS project.

(9) *Ecuador, tele-conference lecture series*

Georgetown University and the Catholic Pontifical University of Ecuador (PUCE) have embarked on a collaborative education relationship via NASA satellite, which has been made available for a three-year period to the universities free-of-charge. Georgetown University offered courses in a broad variety of areas from linguistics to small business development. During the fall of 1996, IRH tele-conferenced with a group of Ecuadorian colleagues at PUCE regarding their interest in a series of

lectures on the Division's new RHA approach. A general lecture was conducted by the IRH in October, 1996. A Reproductive Health Awareness course was offered in the spring of 1997 for credit. The first two lessons were conducted in person at PUCE in Quito, Ecuador and the final two lessons were conducted through tele-conferencing.

We are very positive about this new medium which allows to easily and extremely cheaply reach audiences with whom it would otherwise be hard or prohibitively expensive to communicate. We are grateful to NASA for donating the equipment and "air time" to make such an arrangement possible.

Planned Activities: Free NASA air time ended June 1, 1997. Georgetown University is actively pursuing another source of free satellite time. The IRH will participate in any future tele-conferencing ventures should the University secure appropriate satellite time.

(10) *Project reports-in-brief*

In 1995, Division staff began writing a series of brief reports describing Institute projects. Intended for broad distribution, these two-page reports are highly readable, jargon-free, and locate Institute projects in demographic trends and the wider field of population programs. Topics included in this series were: adolescent projects in the Americas, public-private integration for expanding NFP services delivery, and recent Institute research on safety issues and Natural Family Planning.

Planned Activities: The Institute will continue to produce and disseminate brief reports during the AWARENESS project.

(11) *RHA Brochure*

The Division developed and disseminated a draft of a brochure to explain simply and clearly what Reproductive Health Awareness entails. This brochure answers the questions: "What is RHA?," "Who can benefit from RHA?," "What resources are available to help me integrate this exciting philosophy into my programs?," and "What is the core content of Reproductive Health Awareness?"

The brochure was translated into Spanish and has been reviewed by several key people and audiences.

Planned Activities: The brochure will be finalized and distributed to potential collaborators, at conferences, and in participating health clinics as part of the AWARENESS project.

(12) *Development of New Formulas to Identify the Fertile Time of the Menstrual Cycle*

Institute staff member Virginia Lamprecht and Laurence Grummer-Straun from CDC published an article to determine if better formulae could be developed to determine the fertile time using the calendar method. The article was published in *Contraception* and was distributed by mail and at conferences.

Planned Activities: We will continue to distribute the article. A similar article for lay audiences is planned.

(13) *Advances in Contraception/ Natural Family Planning and Reproductive Health Awareness: expanding options and improving health.*

The proceeding of the Division's end-of-project meeting (April 4 -6, 1997) were published and will be distributed in August, 1997 to the regular subscribers of *Advances in Contraception*. Additionally, the IRH will widely distribute copies by mail, at the APHA conference in November 1997, and at future conferences.

Planned Activities: Continued distribution of the journal.

(14) *Division Website*

In 1997, the Institute staff has designed an NFP/RHA website for general audiences. It contains a brief history of the Institute, definitions of NFP and RHA curricula, a listing of Institute staff, upcoming Institute events and online publication ordering.

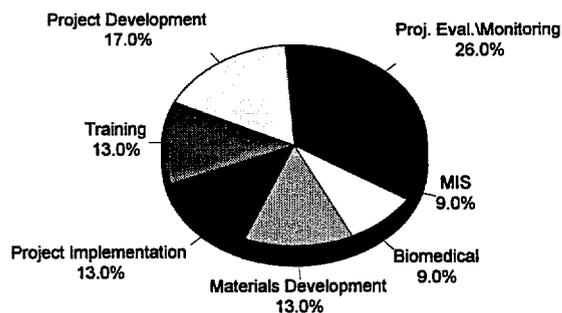
We are very excited to utilize new media in the dissemination of Institute materials to CAs and other organizations needing reproductive health information.

Planned Activities: The website will be available for access during the AWARENESS project. It will be periodically updated during the course of the project according to need and will be linked with other appropriate web sites.

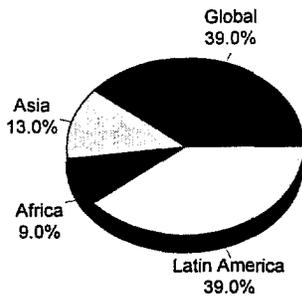
B. Strategy: Provide technical assistance to family planning and reproductive health programs to help maximize their quality, sustainability and client-reach

TA to USAID, CAs, and developing-country organizations is a major mechanism to encourage programs for family planning, child survival, and reproductive health education to include reproductive Health Awareness and NFP in their efforts. TA is provided by Institute staff and consultants as well as by several of our subcontractors. The distribution of technical assistance by type-of-assistance and region-assisted is illustrated in the pie charts on the following page.

Technical Assistance by Category



Technical Assistance by Region



Technical Assistance identified as "global" is primarily to CAs whose work has a global impact.

Following are specific examples of TA provided during this reporting period.

(1) Project Evaluation and Monitoring

TA was provided to:

- a) the Principal Investigator for a WHO-IRH periodic abstinence study on the Philippines-site in conducting focus groups;
- b) PFNFP in the Philippines to develop a national level project monitoring system;
- c) PRISMA, DOH, and Manuela Ramos in Peru to develop an evaluation framework for the project to incorporate RHA in their service delivery;
- d) CIES in Bolivia to develop an evaluation framework for incorporating RHA into their service delivery; and
- e) PRISMA, DOH, and Manuela Ramos in Peru to implement their evaluation of project outcomes.

(2) Project Development:

TA was provided to:

- a) CEMICAMP in Brazil to develop a protocol for a follow-up blanket formula study;
- b) PFNFP in the Philippines to identify local government unit sites for a Natural Family Planning operations research study on different strategies for delivering and expanding NFP services;

- c) FLMZ in Zambia to develop a new project that incorporates RHA; and
- d) the Maryland Healthy Teens Project on designing a program model for testing in developing countries.
- e) the Kaanib Foundation in the Philippines in the development of an OR study on male involvement and Reproductive Health Awareness.

(3) Training

TA was provided to:

- a) PRISMA in Peru in conducting a training-of-trainers to introduce health care workers to the RHA approach to service delivery;
- b) CIES and other NGOs in Bolivia on an RHA approach; and
- c) PFNFP in the Philippines on the design and implementation of OR in NFP service expansion.

(4) Project Implementation

TA was provided to:

- a) PRISMA in Peru to help them develop a training plan to integrate Reproductive Health Awareness into their own programs;
- b) CIES in Bolivia on an RHA project;
- c) CEMICAMP in Brazil to review the protocol for a study on the use of a "necklace" (based on a blanket NFP formula) that indicates fertility by the color of the beads; and
- d) PFNFP in the Philippines in selecting sites for the OR study and an organization to carry out the OR data collection and analysis.

(5) Materials Development

TA was provided to:

- a) the Focus Project on developing RHA materials for adolescents;

- b) Manuela Ramos in Peru on developing and testing RHA materials dealing with STDs
- c) CIES in Bolivia on developing and testing RHA materials for rural communities.
- d) MEXFAM on developing a manual for educators to use in working with adolescents in RHA.

(6) Biomedical

TA was provided to:

- a) Family Planning Technical Guidance Working Group on recommendations for updated selected NFP practices; and
- b) Private companies by providing advice for developing a future test of a new device based on salivary ferning.

(7) MIS:

TA was provided to assist:

- a) PFNFP in the Philippines to analyze their data collection system to ensure compatibility of forms from teachers, supervisors and area coordinator.

VI. Objective: Inform the scientific community, policy makers, and others about various aspects of NFP and RHA

- A. Strategy: Publish articles in scientific journals and other media

Numerous articles were published in scientific journals during this reporting period. See appendix #2 for a list of publications.

- B. Strategy: Make presentations in scientific meetings and other fora

Division staff presented the Institute's approach to RHA and recent IRH research in NFP at a number of forums during this reporting period. The Reproductive Health Awareness approach was presented in New Zealand, Tanzania, Washington, DC, and Ecuador. "Health Risks Associated with

Unplanned Pregnancies" was presented to audiences in Ecuador and at the APHA conference in New York. For a complete list of presentations, see appendix #3.

- C. Strategy: Maintain a Research Fellows Program to provide support and guidance for NFP and RHA education researchers

The Division continues to administer a research fellows program that supports and guides researchers investigating NFP and RHA issues. This reporting period Marco Delucca and Dr. Adenike Bitto participated as research fellows.

Marco Delucca, who completed his studies at James Madison University, worked with the Division to complete the analysis of the data from the pilot MIS project. He prepared the final *Report of the Management Information System for NFP Programs*.

Dr. Bitto, who completed a Ph.D. in Public Health from Johns Hopkins University, collaborated on three different projects with Institute staff. She prepared a literature review of international program experience with the Calendar/Rhythm Method in preparation for the Institute's Philippine NFP-expansion initiative; she completed a paper reviewing the studies that have been done in the past decade on NFP efficacy; and she is further analyzing data gathered from the IRH "Surveillance of NFP pregnancy outcomes" study.

- Planned Activities:** We will continue our fellows programs under the AWARENESS project.

E. END-OF-PROJECT MEETING

The NFP/FA Division conducted its end-of-project meeting from April 2-5, 1997 at Georgetown University. It was entitled "Natural Family Planning and Reproductive Health Awareness: Expanding Options and Improving Health" and was attended by prominent members of the reproductive health and family planning community. Papers that were presented at the meeting will be published in a special issue of *Advances in Contraception* that will be disseminated to the journals' subscribers in August 1997. The consensuses that were reached during the meeting are presented here.

1. Timing of intercourse relative to ovulation is critical to achieve or avoid a pregnancy. Statistical models can help to identify the probability of pregnancy due to a single or several acts of intercourse during days of the cycle relative to the day of ovulation. A "fertility window" can thus be identified based on these models. Most pregnancies result from intercourse within the few days leading up to ovulation, although the fact that some occur further away from ovulation indicators has important implications for NFP. It is also important to bear in mind that not all cycles are actually viable for a given woman and that the probability of having potentially fertile cycles differs across women. Although differences have been found in cycle variability in several studies over the last 30 years, these differences are more likely to be due to variations in the design of the studies and the quality of the data collected than in actual changes over time.

2. Fecundability is influenced by both sperm numbers and sperm quality, as well as factors related to the menstrual cycle and female reproductive functions. Data have been reported that there are geographically localized regions where declines in sperm numbers have occurred. However, these data should be interpreted with caution. Appropriate statistical analysis should be performed, and biases in subject selection should be avoided. Small decreases in sperm production probably do not produce measurable reductions in fecundability,

but they may forecast future problems. Studies of populations of men exposed to known toxicants or other adverse conditions may contribute to the understanding of global trends. Comparable data on changes in female reproductive health are not available. Overall, consequences of the complex interactions of biological, behavioral, and environmental factors upon fecundity are not fully understood. Reduced semen quality may, in principle, diminish fecundability and affect the number of days of the fertile time. These putative changes in male reproductive health, and possible changes in the female, should not alter the present teaching and practice of NFP.

3. Several advances have been made in the development of objective methods to accurately predict and detect ovulation. These focus upon both endocrine markers and properties of cervical mucus. The technology of measurement is becoming simplified; user-friendly electronic devices can now translate dipstick hormone measurements into predictions of the fertile time. As this technology is refined, accurate information is needed on user acceptability and effectiveness. Further simplification will contribute to greater acceptability. A goal for future methods is to identify the six-seven most fertile days in all cycles. Research is also needed on the extent to which new devices will attract new users to NFP, couples interested in combining fertility awareness and for those not religiously or ethically opposed to barrier methods, and/or be an alternative for existing NFP users. If the new technology is to be useful for people in the public sector in developing countries, it must be made simpler and available at sufficiently low cost.

NFP and family planning methods based on fertility awareness use various indicators to identify the fertile time and different rules to guide couples as to when to abstain or, if the couple chooses to do so, have protected intercourse. Estimates of NFP effectiveness vary due to many factors including:

- study design
- age of both members of the couple
- how couples manage their sexual relationship during the fertile time
- clients understanding of the rules and ability to apply them
- the quality of training and support
- motivation to use the method and thereby avoid pregnancy

New research is needed on calendar method

effectiveness, including the application of simple rules, and on the effects of the quality of training on effectiveness. NFP effectiveness should be reported as lifetable probabilities of pregnancy during perfect and imperfect use. Alternatives to clinical trials are needed to evaluate the acceptability and effectiveness of NFP in a variety of service delivery settings. The attitude of health service providers toward NFP may influence its acceptability and effectiveness. Given the fact that couples who identify themselves as NFP users do not always comply with the requirement for abstinence during the fertile period, estimates of efficacy should take into account the implications of alternative behaviors to unprotected intercourse on the identified fertile days.

4. Rates of spontaneous abortion as well as the rates of major congenital anomalies are not increased in cohort studies of pregnancies occurring in users of Natural Family Planning. Overall, spontaneous abortion and anomaly rates also are similar in both planned pregnancy (i.e., those resulting from intercourse on or near the day of ovulation) and unplanned pregnancies due to method failure (i.e., those resulting from intercourse at the extremes of the fertile time). Rates are not affected by pregnancies conceived on specific days vis a vis date of ovulation. Further, no increased risks of Down syndrome or other abnormalities have been observed in cohort and case control study of NFP users, suggesting that the risk of abnormality due to aging gametes in vivo is not significant. A small subgroup of women with a history of previous pregnancy loss may have increased rates of spontaneous pregnancy loss if conception occurs at the extremes of the fertile time. NFP clients can be assured that conceptions during NFP use do not result in higher risks for adverse pregnancy outcomes. In addition, timing of intercourse vis a vis ovulation or planned status of conception does not influence sex ratio, birth weight or pregnancy complications.

5. NFP services provided worldwide have primarily been offered by free standing NFP

NGOs, who offer only NFP methods. As a result, there is limited experience in how multi-method providers can effectively and efficiently offer NFP and fertility awareness education. Efforts at mainstreaming need to take account of a number of factors. They include: (a) provider attitude and skills, (b) NFP teaching methodologies, (c) the time it takes clients to learn the NFP method, and (d) implications of mainstreaming for staff utilization, deployment and supervision. Multimethod programs should include NFP and fertility awareness in their educational activities. In doing so, they need to consider how they will create a supportive program and policy environment and develop the capacity to provide services. Partnerships between multimethod providers (public and NGO) and NFP NGOs represent an approach for making fertility awareness education and NFP services more widely available. This approach, however, requires good communication among many types of service providers, program managers, donors and senior policy makers. Ovulation prediction devices offer the possibility of simplifying client use of a natural method and represent another approach for making NFP more accessible and easier to learn and practice. Operations Research is needed to provide guidance to help providers integrate fertility awareness education and NFP into their programs and services. Operations Research could assist this process by testing approaches for overcoming barriers and models for mainstreaming NFP including through public-private partnerships.

6. NFP and Fertility Awareness education have many benefits. They need to be offered optimally by multimethod family planning services with the same level of counseling and support as other information and methods. Most non-governmental organizations (NGOs) that provide NFP meet only a small portion of the potential demand for services. Similarly, few private providers, including physicians and other health professionals, offer fertility awareness education and services in NFP. The reasons for this lack of services include (1) lack of accurate information by clients and providers about NFP and fertility awareness, (2) provider preference for "medical" methods instead of "behavioral" methods, (3) the perceived complexity of NFP methods and the time required to teach them, (4) management, monitoring, supervision, and training systems, which do not support NFP and fertility awareness education, (5) the barriers that exist between

NFP NGOs and those involved in other family planning and reproductive health services, and (6) a lack of provider and client skills to deal with sexuality and gender issues that are central to successful teaching and counseling. The potential and actual demand for NFP and fertility awareness education, when they are offered adequately, needs to be documented. Accurate, accessible, user-friendly information needs to be developed and disseminated to providers and managers of family planning and other reproductive health programs and at the community level. Partnerships between NFP NGOs and public and private sector programs need to be fostered. Technical assistance is needed to deal with structural barriers that exist in multimethod family planning programs and with those that impede expansion of the capacity of NFP NGOs.

7. Reproductive Health Awareness is an approach which integrates gender awareness, interpersonal communications, and sexuality. It can improve the health of individuals and increase the appropriate use of services by improving self-knowledge of what is normal, early recognition and self-referral for abnormal findings, improved knowledge of what resources are available, and improved ability for self-advocacy with partners, providers and others. This participatory approach also has the potential to empower groups of individuals as well as the community to address critical health concerns.

Reproductive Health Awareness can be implemented through a variety of mechanisms including health facilities, educational systems, community services, and organizations.

Implementation of a Reproductive Health Awareness approach involves a series of steps that require the participation of the community and all other stake holders. These steps include:

1. Identifying the community's reproductive health needs and expectations beyond the public health perspective to include the

psychosocial costs, the impact on others and the human rights discussion.

2. Identifying the resources, channels, and networks that are or can be available to the community.
3. Identifying the behavior and norms that need to be influenced at the organization, provider, community, and individual level.
4. Developing and implementing appropriate strategies to reach the various audiences within the community.
5. Monitoring and evaluating the impact of these strategies on target behaviors and norms. This includes developing additional indicators and methodologies to measure improved quality of life. This process places an emphasis on integration and coordination with various organizations, networks, and the community.

Additionally, recommendations were developed to address the major issues that were discussed during the meeting. Meeting participants worked in interest groups to further discuss the future of NFP, Fertility Awareness, and Reproductive Health Awareness.

The first group discussed **NFP service delivery: strategies for mainstreaming and expansion (Facilitator: Carlos Huevo, M.D.)**. The recommendations are as follows:

- ◆ Fertility awareness information should be part of basic client education offered by reproductive health/ family planning providers. It has implications for effective practice of NFP and other family planning methods as well as for other aspects of reproductive health.
- ◆ Family planning providers can enhance quality of care by adding fertility awareness education and NFP to the choice of methods offered.
- ◆ International, national, and local organizations committed to reproductive health and quality of care should advocate the effective inclusion of fertility awareness education and NFP into family planning programs.

- ◆ Institutions interested in incorporating fertility awareness education and NFP should receive necessary assistance and support to accomplish this. The assistance should include: assessment of potential demand, identification of resources, planning the implementation (including adaptation of the organizational systems to incorporate NFP), training providers, developing service guidelines, and integrating these services into monitoring and evaluation systems.
- ◆ Since little information exists on the integration of NFP into multimethod programs, studies should be conducted on cost, efficacy, acceptability to providers, and clients.
- ◆ Since there is still much to learn in the integration of fertility awareness education and NFP into multi-method family planning services, operations research is needed to test different approaches to mainstreaming.
- ◆ There is a great wealth of experience among specialized NFP organizations which could be of great assistance in carrying out the above steps. Therefore, collaboration between specialized NFP organizations and other programs should be encouraged.

The second group considered the future of **Reproductive Health Awareness: next steps** (Facilitator: **Kimberly Aumack, M.A.**).

- ◆ Knowledge and “awareness” about the concept of Reproductive Health Awareness at all levels (individual, provider, policy, etc.) should be increased.
- ◆ Support for organizations and individuals to help them improve the skills necessary for their active participation in the Reproductive Health Awareness implementation process is essential.

- ◆ Linkages should be created between organizations and institutions working with some of the Reproductive Health Awareness concepts to enhance integration of the whole approach.
- ◆ Prioritization of tasks and steps to integrate Reproductive Health Awareness into on-going programs is important.
- ◆ Development of an assessment and evaluation framework which includes methodologies to measure improved quality of life which go beyond the standard public health measures, core indicators which can be compared across projects, and adaptable tools, should be a priority.
- ◆ Providers need training and technical assistance to move from a role of “providers of information” to “reproductive health facilitators”.
- ◆ Appropriate curricula and materials which can be used to train groups and individuals in Reproductive Health Awareness are needed.
- ◆ Operations research to show the impact of Reproductive Health Awareness and demonstrate how it differs qualitatively from other strategies is needed. Participatory research on the process of implementation is also needed.

The third group discussed the **Safety and efficacy of NFP: implications of findings** (Facilitator: **Max Elstein, M.D.**).

- ◆ NFP is safe and effective and can be recommended as part of a family planning approach based on informed choice.
- ◆ There is the need to prospectively evaluate the reproductive function of couples at the extremes of the potential fertile time of the cycle.
- ◆ Data are needed on the characteristics of long term users of NFP to identify factors which facilitate continuing acceptance.
- ◆ There remains a need to disseminate the existing efficacy data regarding various NFP methods to

policy makers and providers.

- ◆ Specific investigations on the acceptability and efficacy of simplified approaches to NFP are required.

The fourth group considered **devices for predicting and detecting the fertile time: next steps and goals (Facilitators: David Katz, Ph.D and Cecilia Pyper, M.D.)**.

- ◆ Devices to predict and detect potential fertility should be based on biological signs and must be designed for use by people in various geographical settings and socioeconomic groups with the goal of expanding the acceptability and use of NFP.
- ◆ Basic issues regarding devices include:
 - Measurement

	<i>Target Materials</i>	<i>Measurements</i>
Primary	urine	hormones
	mucus	hydration
Secondary	saliva	hormones, and other biochemical and physical parameters
	intestinal fluid	transdermal transition of hormones
	other	

- Behavior
Ease of use, non-invasive, lifestyle compatible

- Technology
Safety, robustness and reliability, simplicity, accessibility

- Economics
Cost of development, cost of manufacturing, cost to user, subsidized, marketing strategy, return on investment

- Research and Evaluation
Independent assessment, availability of results

The final group analysed the **definition the fertile time: implications of findings (Facilitator: Jeff Spieler, MSc.)**.

- ◆ Direct measurements of the day of ovulation (e.g. using ultrasound scans or hormone assays) will enable a more accurate determination of conception probabilities but would be less practical for NFP use.
- ◆ Imprecise markers of ovulation, e.g. BBT rise, are less reliable for defining the probability of conception on each day of the fertile period and also result in the identification of a longer potential fertile period and number of abstinence days than more precise markers.
- ◆ It is important to distinguish between the actual fertile period and the so-called unsafe days. The latter encompasses the former. The more accurately the day of ovulation is identified by NFP users, the closer the fertile period and unsafe days are to each other.
- ◆ More precise estimates of conception probabilities and the effect of co-variables (e.g. age of woman and man, parity) are needed.
- ◆ More precise data are needed on the relationship between various reference points for ovulation used in NFP and the actual time of ovulation. Such a study would be best done in NFP users and should be large enough to permit pooled and separate analyses of volunteers based on important co-variables such as parity, age and whether NFP is used to avoid or achieve pregnancy. NFP reference points could then be used to obtain a more precise estimate of the conception probabilities on each day of the fertile period.
- ◆ More precise estimates for modifying and standardizing the abstinence rules for the different NFP methods to decrease both the risk of unplanned pregnancy and the duration of abstinence should be established.

New devices for predicting and determining the fertile time should include the capability to customize the rules for individuals depending on their particular

circumstances, e.g. cycle length, parity, and motivation to avoid pregnancy versus desire for less abstinence. Additionally, this applies to potentially modifying electronic devices to permit the user to set the device to give a more or less precise detection of the onset and duration of the fertile period which, in turn, would either give greater effectiveness and more abstinence or less effectiveness and less abstinence.

- ◆ Current NFP methods, like the Billings ovulation/cervical mucus method and the sympto-thermal method, have perfect-use rates that range from as low as zero to about 3-4% and typical-use rates that range, on average, from 8% to 20%+; thus, it is unlikely that better estimates of conception probabilities will improve the perfect-use pregnancy rates.
- ◆ Obtaining precise data on conception probabilities and the co-variates influencing this may be helpful to better define the actual fertile period in NFP users. This could result in less abstinence and better compliance which would improve the typical-use pregnancy rates. This acceptance should make it easier for NFP acceptors to be a “perfect users”.

Planned Activities: The proceedings of the end-of-project meeting will be disseminated widely to the scientific and provider community or a special issue of *Advances in Contraception*. Their publication will be one of the major instruments for communicating with these key groups as we implement the AWARENESS project.

THREE: BREASTFEEDING AND MCH

A. OBJECTIVES

The GU/IRH goal in breastfeeding was to increase the availability and acceptability of optimal breastfeeding with a focus on its fertility impact, through enabling women to practice optimal breastfeeding and by ensuring the timely introduction of complementary family planning methods. The Breastfeeding and MCH Division's three objectives were:

- I. Continued testing and refinement of the Lactational Amenorrhea Method (LAM), an introductory postpartum method of family planning which enhances acceptance of family planning and supports women in optimal child health practices;
- II. Policy change favoring optimal breastfeeding for its fertility impact;
- III. Program changes to include LAM, the fertility aspects of breastfeeding, and the timely introduction of appropriate family planning methods postpartum.

The Division's activities to achieve the objectives of refining LAM use, achieving policy change, and producing program change focused on three subject areas: (1) LAM and the timely introduction of family planning during breastfeeding; (2) optimal breastfeeding for its fertility impact; and (3) the breastfeeding and LAM/Natural Family Planning (NFP) interface. In each subject area, the Breastfeeding and MCH Division (a) provided technical and financial support for research and pilot projects; (b) provided information and education to health professionals and policy makers; and (c) used 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 USAID Mission needs. The strategic approach was refined based on a process that

included concept paper development in all fields of expertise and input from a Technical Advisory Group and a midterm evaluation team. The result, within the approved workplan, was increased conceptual emphasis on targeted efforts in research, policy, field activities, IEC, training, and evaluation.

In 1995, A.I.D. redesigned its funding approach, decreasing core funds and increasing country program support. The resulting shift in emphasis allocated one-third to one-half of all funds to country program activity, which was not part of the original Division strategy. This shift was accommodated actively by emphasizing Objective III, program changes, with the subobjective of developing projects at the country level.

B. ACTIVITIES

The following activities took place during the reporting period July 1, 1996 - June 30, 1997. This is the final Technical Progress Report for the Breastfeeding and MCH Division.

I. LAM/Postpartum Family Planning: Breastfeeding and Family Planning Interface

Activities in this area consisted predominantly of direct support for LAM and the LAM/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 introduction in breastfeeding programs. This area also includes all new country program activities, which were limited during this reporting period. Under each item, no "Planned Activities" are indicated since June 30, 1997, was the final date of the current Cooperative Agreement.

A. LAM/Postpartum Family Planning: Research and Pilots

- (1) Chile: Pontificia Universidad Católica
- (a) Chile: Clinical Study of LAM

This project, begun in 1987, prior to the Bellagio Consensus meeting, was designed to test the impact of full lactational amenorrhea on fertility return

during the first six months postpartum, and a follow-on was designed to develop a textbook, assess impact of a breastfeeding conference, and test a modified LAM for working women. All activities for this project were completed. A paper on LAM with working women is expected to be published by the Principal Investigator for that activity.

(2) Ecuador: LAM in a Family Planning Setting

Ecuador's Centro Médico de Orientación y Planificación (CEMOPLAF) introduced the Lactational Amenorrhea Method into their clinic and CBD family planning services, with support and coordination from the IRH/GU Breastfeeding and MCH Division. From 1990-1994, operational research studies were conducted to obtain information on acceptance, efficiency, and effectiveness of LAM among users and the 20 outpatient health clinics run by CEMOPLAF. A final report assessing the outcome of this research was submitted to IRH and is being rewritten into manuscript form to be submitted for publication by the end of the project. All other activities, including the CBD incorporation of LAM, were completed.

(3) Georgetown University Multicenter Study of LAM

Eleven study sites participated in the Multicenter LAM Study, with coordination and analyses performed by IRH. IRH funded six sites: Germany-Italy as one joint site, Mexico, the Philippines, Sweden, the United Kingdom, and the United States. The World Health Organization funded two sites: one in Jakarta, Indonesia, and another in Sagamu, Nigeria. The South to South Cooperation in Reproductive Health funded the remaining two sites in Jos, Nigeria, and Assiut, Egypt. The purposes of the study were to: a) confirm the efficacy of LAM, taking into account the results of the Chilean study; b) assess the general acceptability of LAM in a variety of defined populations; c) assess correctness of LAM use, including timely acceptance of complementary family planning after the end of the use of LAM as an interim method; d) document the outcomes for clients who do not adhere to the recommended LAM guidelines; e) document issues related to the introduction of all family planning methods

including the special aspects of natural family planning methods after LAM use; and f) improve the clinical guidance for utilization of LAM by analyzing conditions that may have led to unplanned conceptions.

During this reporting period the following activities were accomplished:

- Data collection and analyses for Protocol I were completed.
- Two papers for Protocol I were completed and submitted to *Contraception* for publication. The papers are titled *Multicenter Study of the Lactational Amenorrhea Method (LAM): I. Efficacy, Duration, and Implications for Clinical Guidance*, and *Multicenter Study of the Lactational Amenorrhea Method (LAM): II. Acceptability, Utility, and Policy Implications*. These papers were accepted and published in the June 1997 issue of *Contraception*.
- Data collection and preliminary analyses were completed for Protocol II. The analyses will be finalized after the sites respond to queries sent in reference to missing data.
- A preliminary manuscript for Protocol II has been drafted: it will be finalized once the analyses for this protocol have been completed and submitted for publication.
- A one-day final meeting for the Principal Investigators from each site was held on May 12, 1997, in conjunction with the Breastfeeding and MCH Division's End of Project Conference. This meeting allowed all who attended to review the results for both protocols, discuss the differences and problems that were site-specific, and plan for future manuscripts based on the data collected for this study.
- One of the Principal Investigators published a site-specific article (Mexico). Principal investigators from the following sites also have indicated that they intend to publish site-specific data and results: Germany/Italy; Indonesia; Sagamu, Nigeria; the Philippines; Sweden; and the United Kingdom. Assistance was offered for those who require help in drafting their site-

specific manuscript. A manuscript from the site in Egypt is under review by IRH, and is expected to be submitted for publication by the end of the Cooperative Agreement.

(4) Qualitative Research

This study, carried out in five Multicenter sites (England, Nigeria, the Philippines, Sweden and the U.S.), explored the acceptability of LAM among LAM users, their partners, health professionals, and women who were eligible to use LAM but chose another method. Using a combination of focus groups, in-depth interviews, and key informant interviews, participants were asked about their general attitudes and considerations when choosing any family planning method and their positive and negative experiences using LAM.

Sweden was delayed considerably in reporting their results due to budgetary constraints. This delay has had an impact on the timing of a final article reporting on the overall research findings.

At this time, all sites have completed their research and submitted final reports. Key findings are:

- Advantages of the method mentioned by user and their partners include that it is 1) totally natural and safe, 2) does not require any action at time of intercourse, and 3) improves breastfeeding practices.
- Disadvantages most commonly mentioned were night feeds and no more than four-hour intervals during the day.
- In all countries, health care providers (doctors, midwives, and nurses) were the biggest barrier to LAM use because of their misinformation and lack of support.
- In developing countries men and women were familiar with breastfeeding's impact on fertility and believed it prevented pregnancy. Programs in these countries included men in the counseling which made them more informed and supportive of their partner.
- In industrialized countries, much of the discussion focused on how breastfeeding affected sexual relations. One of the most common benefits of LAM in these countries

was that it gave the user and partner a break from other methods.

Conclusions based on the data analysis of the five countries are:

- Informed, trained health professionals are key to the effective promotion of LAM.
- Women will change and improve their breastfeeding patterns when they know these patterns are important to fertility suppression.
- LAM IEC materials need to be developed for all audiences, including partners of women relying on LAM.

These results were presented at the Division's End of Project Conference. Time permitting, an article on the study will be submitted to *Studies in Family Planning*.

(5) Field Projects

(a) Active

- Haiti: This project closed August 15, 1996. However, the Final Report was delayed considerably due to a temporary close-down of the PROFAMIL offices in Haiti. A final report was received in the first half of 1997. A planned evaluation was not possible due to time and budgetary constraints.
- Mexico: The Chiapas State MEXFAM affiliate, SIES, an established Community Distribution System, served as a model of LAM introduction for other MEXFAM affiliates. All planned training sessions for volunteer groups were completed. Delays in program implementation occurred due to political unrest; therefore, a two-month extension was granted to SIES to complete the project. A final TOT was cancelled due to financial considerations. The final report is overdue but should be available before the end of the Cooperative Agreement.
- Ukraine: USAID/Kyiv requested participation from several cooperating agencies (CAs) in their Reproductive Health Initiative (RHI) in Ukraine. CAs including IRH, AVSC, JHPIEGO, PCS, The Futures Group, and MotherCare/JSI, as well as

the World Bank, CDC, and the American International Health Alliance (AIHA), formed a working group to respond to this request.

For activities covering the period April 1995 to December 1996, the RHI updated reproductive health knowledge at three selected sites throughout Ukraine: Donetsk, Odessa, and L'viv.

At each project site AVSC led a reproductive health seminar at which Breastfeeding and MCH Division consultant Elena Stroot lectured on LAM, breastfeeding, and reproductive health. In addition, the Breastfeeding and MCH Division conducted a three-day seminar at each of the selected sites to promote LAM and optimal breastfeeding practices. Policy and curricula change at the oblast (state) level was approved by the Mission and was pursued by including the appropriate personnel in training activities.

In Donetsk a regional family planning policy now mentions LAM and further policy changes are being considered by local authorities. Several clinical changes were made in targeted health care facilities to allow more optimal lactation and to promote LAM. Several initiatives have been taken to transfer the information presented by the Breastfeeding Division to clients, providers, and policy makers. LAM is being taught correctly in model centers.

In L'viv, IRH completed its three-day training, but due to a lack of funding was unable to conduct follow-up and monitoring. Positive feedback was received via phone conversations and we were informed by participants that they are going to implement LAM counseling and attempt to write LAM into their policies.

In Odessa rooming-in is fully implemented at Odessa Regional Maternity, the model hospital for USAID/Kyiv activities, and other health care facilities in the city have partially implemented rooming-in. Programs have been planned and implemented for improved breastfeeding, LAM, and reproductive health counseling for clients

and a permanent post-graduate training process has been put in place for hospital staff.

The information and example provided by Breastfeeding and MCH Division activities in Ukraine combined with previous Wellstart breastfeeding promotion activities to promote breastfeeding have helped to create national-level awareness of lactation management issues in Ukraine. The Ukrainian Ministry of Health has issued a new Ministerial order that will widely introduce rooming-in and improve breastfeeding practices throughout Ukraine. The new order encourages further efforts across Ukraine by removing previously existing administrative regulations that were obstacles to optimal lactation management.

- Bolivia: LAM services are being delivered at more than a dozen sites in and around La Paz (there are more than 1,000 successful LAM users). Dr. Maria Lorencikova, IRH consultant, continued to provide technical assistance to institutions and their staff. Several training workshops for physicians and other health professionals have been conducted jointly by IRH and other institutions, integrating LAM into their training packages.

A LAM TOT workshop was carried out in Cochabamba in December 1996. Participants included service providers from institutions working in the region, and faculty from two schools of nursing.

IRH worked with JHU/PCS in the development of a LAM flipchart for counseling and on a follow-up card for LAM clients. Both will become part of the set of IEC materials for reproductive health being used country wide by all health care institutions.

IRH continued to provide technical support to institutions through May 1997. Institutions represented at the Cochabamba TOT workshop received TA for their in-house trainings and for implementing service delivery.

- El Salvador: The LAM Introduction Project is completed and the final report has been received. The sensitization conference and LAM training

workshop were completed. Workplans developed by the organizations participating in the workshop all were approved by their organizations' directors. All second-level training sessions were completed (by CALMA, AGAPE, the University of El Salvador, and Social Security). The University's Medical School has incorporated LAM into the curricula of all its departments, including the outreach clinics where all of their graduates must work prior to graduation. The MOH has developed training plans for three of their Departments (out of 14) and has begun to develop an MIS for reproductive health that includes LAM. This MIS will be used not only by the MOH, but also by the MOH-supervised NGOs involved in community health as well as those NGOs supervised by the Child Survival umbrella group, PROSAMI. These two groups of NGOs make up practically all of the organizations involved in community health. LAM has been institutionalized in all participating organizations.

- **Perú:** LAM services continued to be delivered by providers who attended the IRH training in February 1996 and by others subsequently trained by them. Several hundred women have used LAM successfully and have gone on to use other family planning methods. Providers also reported improvements in other aspects of reproductive health services as a result of incorporating LAM into their services.

PRISMA continued to provide technical support for monitoring and evaluation and follow-up to training to institutions delivering services.

Technical assistance to institutions involved in the project will continue. A training workshop was carried out in the area of Ayacucho in January 1997 for providers from service delivery institutions and for faculty of schools of nursing, midwifery, and/or medicine of several universities. A follow-up card for LAM clients was developed.

- **Philippines:** The Breastfeeding and MCH Division Director and Deputy Director held several seminars with key DOH personnel in February 1994. This work resulted in a national-level policy incorporating LAM as a family planning method into the national family

planning service delivery system, which was announced officially in March 1995. In 1995, IRH was asked to review PCS materials on LAM, and PCS sent a senior DOH staff consultant, Dr. Marietta Siongco, to the IRH International Training on Breastfeeding, LAM, and Postpartum Reproductive Health. In 1996, USAID/Manila requested that IRH provide additional technical assistance in the development of a Strategic Action Plan for the support of the introduction of NFP and LAM into health care services in the Philippines. This request was in response to the ongoing IRH collaboration initiated in 1993, and Dr. Labbok, Myrna Seidman, and Mihira Karra traveled to the Philippines to conduct an assessment and to design two distinct strategies.

Based on the finding of this assessment visit, and building on experience with LAM in other countries, a series of recommendations were made to USAID/Manila and specific activities were outlined. After an initial delay in identifying the most appropriate mechanisms and LAM Technical Secretariat, IRH Director, Kristin Cooney, and IRH consultant, Jennifer El-Warari, finalized the project design and launched a four-month LAM Support Project in January 1997. This project was funded under a Mission buy-in with additional central funds. IRH developed a Subagreement with a non-governmental organization, Reproductive Health Philippines, Inc. (RHP,I) for the overall technical coordination of the project, with Dr. Rebecca Ramos (an IRH and Wellstart Fellow) providing technical guidance as the Principal Investigator and Dr. Ralph Curiano providing the day-to-day logistical support as the IRH Technical Secretariat.

Dr. Curiano, who received a one-week orientation and individualized LAM/breastfeeding training in January at the IRH headquarters in Washington, DC, was seconded to the Philippines Department of Health Special Project's Division under Rebecca Infantado, Subsecretary of Health. Between February and the end of May, RHP,I organized and conducted a total of three sensitization meetings for representatives of all divisions of the DOH, major USAID cooperating agencies

(CAs), and various donor agencies working in family planning and maternal child health throughout the Philippines. They also organized three training of trainers workshops for all (with the exception of two) of the 16 regions of the country. The regional family planning coordinator and master trainer from each region were invited, along with several representatives of various CAs who requested training in LAM. Finally, under a DOH Order, members of a LAM Coordinating Team were nominated and RHP, I organized a series of monthly Team meetings to discuss the integration of LAM into a wide variety of service delivery programs.

Peggy Koniz-Booher, IRH's Senior Program Officer, traveled to the Philippines in March to provide technical assistance to the project, participating in the first Training of Trainers Workshop and monitoring the work of the LAM Technical Secretariat. She returned to the Philippines in April as part of the AED Linkages Project assessment team to provide IRH input in the design of the follow-on project that USAID/Manila is planning to support. It is hoped that the Linkages Project will be able to implement a long-term LAM integration strategy that includes continued support advocacy for LAM, operations research related to service delivery at the Local Government Unit level, as well as the continuation of training of DOH central and regional family planning and MCH personnel in LAM.

- Dominican Republic: With support from Wellstart IRH carried out a breastfeeding and LAM TOT in March 1996 for a large number of providers from public and private institutions. Also, a short workshop was carried out for faculty of Universidad Autónoma de Santo Domingo's School of Health Sciences who are involved in updating the school's teaching curricula.
- Jordan: The Jordan LAM and Breastfeeding Support Project was carried out at the local level by the Center for Consultation, Technical Services and Studies (CCTSS) at Jordan University. The Local Project Coordinator was Rania Kawar, MS, and Issa Al-Masarweh, PhD, began as the Principal Investigator and later became the project's Policy Advisor. In January

1996, Ms. Kawar and Dr. Al-Masarweh participated in a two-week LAM and reproductive health training at IRH. With IRH staff, the workplan for the first phase of the project was finalized.

In March 1996, a sensitization workshop was held in Jordan to inform 72 decision makers about the project. A LAM TOT was conducted in April 1996 with assistance from the Project Manager and IRH Fellow, Andres Bartos. Twenty-one doctors and nurses from the demonstration sites, other projects, and the private and public sectors were trained in LAM and breastfeeding support. Client cards and flipcharts were developed and pretested in May 1996. On-site training was conducted in June 1996 and LAM counseling began in the demonstration sites in August 1996. The first phase of the project was extended until November 30 to complete the printing of the client cards and flipcharts. All of the objectives of the first phase were met.

The second phase of the project included the development of additional IEC materials, additional LAM training and the evaluation of the project. The Local Project Coordinator visited IRH in December 1996 to assist in the translation into Arabic and the filming of the Guidelines video and to design the evaluation of the project and to finalize the second phase workplan. The project end date was changed from September 1997 to April 1997. The timeline and workplan were modified accordingly. In February 1997, the Project Manager traveled to Jordan to participate in a LAM curriculum development workshop for nursing and midwifery schools. Twenty-two nurses and midwives attended and each school developed and is currently using a LAM curriculum in their teaching. The Project Manager also participated in a LAM training session for rural motivators conducted by the Noor Al-Hussein Foundation's Population Programmes. The head trainer and the motivators were able to educate more than 1,000 rural women about LAM during the life of the project. The Project Manager also attended on-site training sessions for demonstration site personnel. More than 650 health care

professionals were trained in LAM by Master Trainers or by the Local Project Coordinator during the project. Finally, the Project Manager visited the demonstration sites. Since LAM counseling began in August 1996, 490 mothers have become LAM acceptors.

The Project Manager made a final visit to Jordan in May to assist in the write up of the project evaluation and to conduct meetings with appropriate MOH and other personnel to discuss the evaluation results and to make recommendations for LAM follow-on activities. In addition, final monitoring visits were made and all remaining IEC materials were distributed. Two thousand client cards, 250 LAM counseling flipcharts, 200 Arabic IDT LAM and breastfeeding training modules, 250 Arabic Guidelines videos, and 500 Arabic LAM Guidelines were developed, printed, and distributed. In addition, an Arabic LAM training curriculum was designed.

B. LAM/Postpartum Family Planning: Education for Health Professionals and Policy Makers

(1) Guidelines for Breastfeeding, Family Planning, and the Lactational Amenorrhea Method--LAM

Our most popular publication, this award-winning booklet for service providers has been distributed worldwide as the final authority on LAM. Over the last 12 months, the booklet has been distributed in five languages (Arabic, English, French, Russian, and Spanish) at several international meetings and to a variety of organizations.

During this reporting period work on the prototypic client version of the guidelines was completed. The pamphlet was pretested with women who had used LAM as well as with postpartum women who were not familiar with the method. The LAM parameters, optimal breastfeeding behaviors, and appropriate family planning methods for the breastfeeding mother are introduced using black and white photos and simple language. Several countries have expressed interest in adapting the pamphlet including England, Germany, Honduras, the Philippines, and Sweden. At the Breastfeeding and

MCH Division End of Project Conference, an IPPF International representative stated that it was the best contraceptive brochure for clients he had ever seen.

Remaining copies of the Guidelines, both service provider and client versions, will be passed on to Linkages for their continued distribution.

(2) Publications/Papers

Much of the Division's success at communicating the LAM message to a variety of audiences was accomplished using targeted publications and presentations. LAM-related publications have had two objectives: 1) to demonstrate the importance and feasibility of implementing LAM into programs worldwide, and 2) to confront common misperceptions and misinformation about LAM.

A booklet presenting the Division's extensive work in LAM integration worldwide, *Taking the First Steps: A Decade of Promoting the Lactational Amenorrhea Method for Family Planning*, was completed. Presented in a "case studies" format, the booklet targets program managers and planners and a secondary audience of policy and decision makers, which includes donor agencies. The booklet also serves as the Division's final report of ten years of funding from USAID on these important initiatives.

The monograph, *Breastfeeding and Child Spacing: Country Profiles*, an analysis of breastfeeding and family planning data from 27 DHS countries, was completed and distributed in conjunction with the End of Project Conference and provided to appropriate USAID Missions. The University of Connecticut, Department of Nutrition, has agreed to oversee the distribution of this publication.

The assessment of LAM-9 in Rwanda, published during the last reporting period in *Studies in Family Planning*, was translated into French and Spanish.

Over the past year many of our field projects have worked to meet a third objective: to provide LAM users simple instructions for using the method and information on optimal breastfeeding and postpartum contraception. The Division assisted field sites in the development of LAM client materials in Bolivia, Jordan, and Peru. In each site, a

client take-home brochure was developed. These have been quite popular both with clients who like to have something that shows they are using a method, and with providers who often use the brochure as a counseling tool as well.

Two papers detailing the results of the Division's clinical study of the efficacy of LAM are scheduled for publication in the May 1997 issue of *Contraception*; Labbok, Laukaran, Peterson, Fletcher, von Hertzen, Van Look. "Multicenter study of the Lactational Amenorrhea Method (LAM): I. Efficacy, duration, and implications for clinical application," and Laukaran, Labbok, Peterson, Fletcher, von Hertzen, and Van Look. "Multicenter study of the Lactational Amenorrhea Method (LAM): II. Acceptability, utility, and policy implications."

As part of our continuing efforts to promote a standardized definitional schema for the term breastfeeding, an editorial on breastfeeding definitions by Coffin, Labbok, and Belsey appeared in the May 1997 issue of *Contraception*. *Social Science & Medicine* accepted a short report "A call for consistency in definition of breastfeeding behaviors," by Labbok and Coffin for publication. The *American Journal of Public Health* accepted an annotation by Labbok, Belsey, and Coffin. "A call for consistency in definitions of the term 'breastfeeding'" for publication.

Valdés, Labbok, Pugin, Pérez, Aravena, and Catalán. "Full breastfeeding with proper support for nursing mothers ensures optimal infant growth for six months: results of a prospective study" will be submitted to *Pediatrics* for publication.

Labbok, Coffin, Courant, Saadeh, and Peck. "Do medical textbooks have accurate and complete breastfeeding information? A review and evaluation of breastfeeding content in selected pediatric, obstetrics and gynecology, infant nutrition, and breastfeeding textbooks" will be submitted to the *Journal of the American Medical Association*.

The Division has distributed materials to various partners, Cooperating Agencies, and interested colleagues for further distribution in the field.

(3) Audiovisuals

The Division has been very successful in producing, translating, and disseminating videos that promote the Lactational Amenorrhea Method and breastfeeding. This year, an Arabic version of the *Guidelines: Breastfeeding, Family Planning and the Lactational Amenorrhea Method* video was produced and distributed. Additionally, *Taking the First Steps: The Lactational Amenorrhea Method for Family Planning*, was translated into French and Spanish.

The Division's other videos continued to play a key role both in policy and educational efforts for a wide range of audiences and have been used in variety of fora. Requests for videotapes were ongoing until June 30, 1997. All remaining videos will be given to Linkages for continued distribution.

Slides on LAM continued to be developed for specific presentations (See also II.B.4.b)

(5) Presentations and Support of Professional Meetings

IRH continued to support acceptance of LAM through providing presentations and participation in medical and professional society meetings and other high-level fora, and by provision of requested assistance to professional organizations. (See Appendix 3, "Presentations.")

(6) International Training in Breastfeeding, LAM, and Postpartum Family Planning

As part of our strategy to improve breastfeeding practices and increase support for women who choose to breastfeed, the Division conducts an International Training Course in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, designed to train health professionals to be experts in the field. The course also supports participants in the development of action plans that incorporate breastfeeding promotion and LAM into their existing family planning, breastfeeding, and/or MCH programs.

The first International Training was held in collaboration with SEATS in April 1993. Follow-up with the participants indicated that LAM has been integrated into several of the participants' programs (Burkina Faso, Haiti, Malawi, etc.).

However, due to civil strife and to personnel changes, other anticipated projects did not materialize (Yemen), or were suspended (Rwanda).

The second International Training was held at IRH in April 1995. IRH, primarily under its field support programs, funded participants from Bolivia, Haiti, Malawi, Peru, and Ukraine. Other participants included doctors and nurse-midwives from Egypt, India, Philippines, and Zambia, for a total of 19 trainees. This training included sessions on postpartum family planning and reproductive health in addition to LAM and breastfeeding support. The participants were required to develop action plans to integrate LAM into their family planning and MCH programs. IRH provided all training. Facilitators included members of IRH staff, doctors and nurses from Georgetown University Hospital and The Johns Hopkins University, as well as representatives from JHPIEGO, SEATS, and other CAs. Almost all of the participants in the above training session now are integrating LAM actively into their programs, and many of them are involved in IRH projects.

IRH's third international training was scheduled for November 1996. Since several of the confirmed participants were affected by the change in A.I.D. training participant protocol (effective October 1, 1996), the November course had to be postponed until March 1997. The third international training course took place at IRH from March 7 - 19, 1997. IRH funded participants from Bangladesh, Ecuador, Ghana, Jordan, and Uganda. Other participants included doctors, family planning specialists, and nurse-midwives from Ghana and Zambia. In addition, two representatives from the newly awarded A.I.D. breastfeeding, complementary feeding, and maternal nutrition project, Linkages, attended. As in the last training course, each participant developed an action plan to integrate LAM into their family planning and MCH programs.

IRH continued to distribute its semiannual bulletin, which is now called the "Institute Fellows Bulletin." This bulletin has been successful as a forum to share news with the trainees and fellows on the progress of ongoing projects worldwide and to update them on the state of the art developments.

(7) End of Project Meeting: Bellagio and Beyond

This meeting, *Bellagio and Beyond: Breastfeeding and LAM in Reproductive Health*, was held at Georgetown University from May 13 -16, 1997. The purposes of this four-day gathering were to: (1) present and discuss current and future program and policy implications of the Bellagio II recommendations; (2) present and discuss lessons learned during the last decade of research, policy, and program work in breastfeeding and LAM, primarily activities carried out under the support of the Institute for Reproductive Health; (3) discuss the future of LAM based on the expertise established by the Breastfeeding and MCH Division of IRH; (4) conduct capacity-building workshops for IRH Fellows, Principal Investigators, and representatives of selected USAID CAs so that breastfeeding and LAM promotion will be able to continue.

The conference was a huge success with representatives from each region in attendance. Several participants presented papers on their in-country programs, policy, research, and more. Other participants who helped make the conference a success were representatives from organizations such as USAID, World Health Organization, Family Health International, IPPF, PAHO, Population Council, Johns Hopkins University, Georgetown University, La Leche League International, and more. USAID Cooperating Agencies represented at the conference were: SEATS, MotherCare, AVSC, CEDPA, CARE, Futures, Linkages, AED, ACNM, PATH, Abt Associates, MSH, BASICS, JHPIEGO, Wellstart International, and PSI.

The conference report with papers attached was disseminated to participants of the conference.

C. **LAM/Postpartum Family Planning Technical Assistance**

(1) Technical Assistance to A.I.D.-funded Cooperating Agencies

The Breastfeeding and MCH Division's technical assistance program includes presentations and workshops with selected Cooperating Agencies, as well as with USAID Missions, international donors,

and other programs. These presentations and workshops focus on LAM and optimal breastfeeding for its fertility impact. When a more formal approach to collaboration is necessary, we have developed Memoranda of Understanding (MOU) with selected groups to commit the involved organizations to collaboration on a number of activities without committing specific funds, with the possibility of IRH and the other organization seeking joint funding for specific projects.

The IRH relationship with the Population Cooperating Agencies was formalized by the leadership of A.I.D. in letters to the agencies describing our unique expertise in this field. Presentations were provided during this reporting period to CRS and Linkages. Less formal presentations took place with PCS.

Institute staff continued its active involvement in working groups with other Cooperating Agencies, including the Reproductive Health Materials Working Group (formerly the Working Group on the Family Planning Training Materials Database); the Working Group on Training Evaluation; and the Working Group on Medical Barriers to Family Planning, now the Task Force on Maximizing Access and Quality.

During this reporting period, IRH hosted the Training Evaluation Working Group meeting on January 16-17, 1997. Representatives from JHPIEGO, AVSC, Pathfinder, PATH, and IPPF attended. Topics covered during this meeting included: (1) Evaluating on-the-job training, (2) Models for long distance follow up and lessons learned, (3) Improving transfer of training, and (4) Evaluation models for developing feedback skills.

Since 1991, IRH has provided presentations and follow-up technical assistance to the following Cooperating Agencies: AED/Linkages, AGI, AVSC, BASICS, CARE, CEDPA, CRS, DA, The Futures Group, International, IPPF, JHPIEGO, JSI/SEATS, MSH, Pathfinder, PCS, Poptech, and Save the Children.

(2) Technical Assistance to USAID Missions, A.I.D. Regional Offices, and Country Programs

Breastfeeding and MCH Division faculty and staff provided a variety of technical assistance to USAID Missions, upon request, which included needs assessment, identification of existing LDC resources and materials, and other activities, under each of the three Division program areas.

IRH sent updated information to all Missions about the 1997 International Training in LAM, Breastfeeding, and Postpartum Reproductive Health. Missions were requested to identify candidates and to support these candidates' participation in the training. The Zambia Mission funded one participant.

(3) Technical Assistance to International Donors

IRH Breastfeeding and MCH Division staff continue to provide LAM-related technical assistance to international donors. Specifically, Division staff continue to participate in WHO, PAHO, UNICEF, UNFPA, World Bank, and other meetings related to MCH issues so that LAM and breastfeeding for its fertility impact might be included on their agendas.

(4) Technical Assistance to Other Programs

Ad hoc technical assistance to other programs continued as part of the mandate of the Division. IRH received daily requests for specific information from lactation counselors and programs worldwide. Responses vary from technical input and document review to sending materials.

In addition, during this reporting period we met with Rotary International at the APHA Meeting in New York in November to assist them in incorporating LAM and breastfeeding issues into their worldwide programs.

II. Breastfeeding and MCH: Optimal Breastfeeding for its Fertility Impact

Activities were 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. Breastfeeding and MCH: Research and Pilots

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

This project was designed to provide information regarding the optimal timing for introducing complementary feeding to breastfed infants. A paper has been published with findings supportive of the original hypotheses that supplementation only replaces breastmilk and provides no additional energy intake: nursing frequency and duration are somewhat reduced and breastmilk intake diminished. Therefore, the conclusion is that there is no advantage to supplementing prior to six months, only the potential disadvantages of infant exposure to disease and early fertility return in the woman. Neither infant energy intake nor weight gain were significantly different in the three groups and a report on return of menses data has not yet been received. The results of this study provide strong evidence in support of the current recommendation approved at the 1994 World Health Assembly of exclusive breastfeeding through about six months.

A second paper was prepared on menses return. As predicted, the sample size was too small to add any significant information, however when pill use is controlled, the trends are as expected.

(2) Data Analysis/Surveys

(a) Demographic and Health Surveys (DHS)

The IRH strategy for research has included exploitation of existing data sets to examine relevant issues. The goals of these analyses are to improve and refine LAM, to increase knowledge of optimal breastfeeding for its fertility impact, and to assess the impact of infant feeding patterns on lactational amenorrhea. In addition, IRH has used DHS data to support policy efforts at the national, regional, and international level.

IRH extended its subagreement with Dr. Pérez-Escamilla of University of Connecticut to complete analyses of DHS II and III data. The subagreement included DHS analyses for two main purposes: to update the *Breastfeeding and Child Spacing Country Profiles*, and to estimate the impact of different infant feeding practices on Lactational Amenorrhea.

An updated and revised edition of *Breastfeeding and Child Spacing Country Profiles* was completed and published as a monograph. Data from phases II and III of the DHS were included in this updated version, and the introduction, methodology, and summary were expanded to provide a better understanding of the analyses and the results. Initial distribution of this monograph began at the IRH Breastfeeding/MCH Division's End of Project Conference *Bellagio and Beyond*, and Dr. Pérez-Escamilla will distribute the remaining copies at relevant conferences throughout the coming year. Appropriate USAID Missions also will receive the document.

Dr. Pérez-Escamilla also completed analyses for four manuscripts on infant feeding and lactational amenorrhea. These manuscripts are currently being reviewed and finalized by all the authors, and will be submitted for publication in June of 1997. The manuscripts are:

1. *Infant Feeding and Lactational Amenorrhea Patterns in Developing Countries: Results from DHS II and III.* Rafael Pérez-Escamilla PhD, Virginia Hight-Laukaran DrPH, Anne E. Peterson MA, and Miriam H. Lobbok MD MPH;
2. *Bottle feeding and Nursing Frequency are Independently Associated with Lactational Amenorrhea in Developing Countries: Results from DHS II and III.* Rafael Pérez-Escamilla PhD, Virginia Hight-Laukaran DrPH, Anne E. Peterson MA, and Miriam H. Lobbok MD MPH;
3. *Milk- and solid-, but not water-based, breastmilk supplements are inversely associated with lactational amenorrhea in developing countries: Results from DHS II and III.* Rafael Pérez-Escamilla PhD, Virginia Hight-Laukaran DrPH, Anne E.

Peterson MA, and Miriam H. Labbok MD MPH;

4. *Maternal and Child Anthropometry are Inversely Associated with Lactational Amenorrhea in Developing Countries: Results from DHS II and III.* Yu-Kuei Peng BS, Virginia Hight-Laukaran DrPH, Anne E. Peterson MA, and Raphael Pérez-Escamilla PhD.

(b) Physician's Knowledge and Attitudes Survey

IRH surveyed 255 physicians listed in the 1995 American College of Preventive Medicine Directory in order to collect data on the levels of breastfeeding knowledge, attitudes, and practices of these Preventive Medicine physicians. The data have been analyzed, and a manuscript is in the final draft stage, awaiting final review of all authors. This manuscript will be submitted for publication in June 1997.

B. Breastfeeding and MCH: Education of Health Professionals and Policy Makers

(1) Textbooks

- (a) *Lactancia Para la Madre y el Niño* [See Section III.A.B.1.A.(1)]

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

WHO, the IRH, and IBFAN collaborated on a study to evaluate the breastfeeding content of the some of most widely used and other selected medical textbooks worldwide. The purpose of this project was to evaluate the quality and comprehensiveness of the breastfeeding content of the textbooks most used by medical schools worldwide for teaching infant nutrition according to specifically defined criteria.

A consultant conducted a survey of medical colleges worldwide and prepared a report which is available as an Institute Monograph, Courant GT, Labbok MH, Saadeh R, and Peck N. *An evaluation of the breastfeeding content of selected medical textbooks: a technical report.* Coffin CJ and Skaar CM, eds. (Institute for Reproductive Health Monograph)

Washington, DC: Institute for Reproductive Health, 1997. In addition, an article based on separate calculations of the raw data from the survey was prepared and was submitted to the *Journal of the American Medical Association*, Labbok MH, Coffin CJ, Courant GT, and Saadeh R. "Do medical textbooks have accurate and complete breastfeeding information? A review and evaluation of breastfeeding content in selected pediatric, obstetrics and gynecology, infant nutrition, and breastfeeding textbooks."

The review found that the breastfeeding information in 23 of the textbooks most widely used to teach infant feeding in English, French, and Spanish-language medical schools is substantially incomplete and/or inaccurate. All areas of breastfeeding should be updated in all medical textbooks reviewed. However, there is a particular need to update and/or include information dealing with:

- the practical aspects of supporting breastfeeding and how to address common breastfeeding problems
- the physiology of fertility change during lactation
- effects of lactation on the mother
- the International Code of Marketing of Breast-milk Substitutes.

(c) Other

Major textbooks whose editors sought Breastfeeding and MCH Division input and/or review in recent years include Robert Hatcher's *Contraceptive Technology* and *Contraceptive Technology/AFRICA*, Jan Riordan's *Breastfeeding*, John Sciarra's *Gynecology and Obstetrics*, Ruth Lawrence's *Breastfeeding for Medical Professionals*, JHPIEGO's *Pocket Guide for Family Planning Service Providers*, and the Institute of Medicine/National Academy of Science's *Update on Contraception*. All of these texts are respected and distributed widely, and form the basis of much of the education in breastfeeding and family planning. In addition, a letter was sent to Dr. Ruth Lawrence asking for corrections to the current edition regarding LAM research, and she agreed to rectify the problems in the next edition. All of the above mentioned editions have been released, most with

considerable increased attention to breastfeeding and fertility and to LAM.

(2) Curricula

(a) Development of Curriculum for International Training in Breastfeeding, LAM, and Postpartum Reproductive Health

An ongoing review of existing breastfeeding and LAM training curricula indicated the need for a comprehensive curriculum designed to cover both technical and programmatic issues involved in LAM promotion and support worldwide. The Division completed the development of such a curriculum for the International Training conducted in April 1995. Based on feedback from the participants and the staff's observations, the curriculum was further refined and made more flexible. This new version was distributed during the training in March 1997.

IRH has been maintaining a curriculum library. An outline was made available during this reporting period describing other curricula used and reviewed by Institute staff. Requests for different curricula were made and fulfilled throughout the reporting period. The curriculum library will be inherited by the new breastfeeding project, Linkages.

(b) Indian Medical Association LAM Self-Study Curricula and Lactation Management Course

The Indian Medical Association (IMA) is offering a comprehensive Lactation Management course to affiliated physicians. The 14-module course has been endorsed by both the Division and Georgetown University's National Capital Lactation Center in 1995.

In this reporting period, the IMA experienced changes in key personnel, including the Honorary Secretary General. Communications have been limited with the newly elected official, however, the Division continued to offer technical assistance and materials as requested.

(3) Written Materials

The Division has been very successful at reaching influential audiences with targeted materials that

carry the message that breastfeeding not only is a cost-effective child survival intervention, but that it also significantly impacts fertility.

In this reporting period, the second edition of *Breastfeeding Saves Lives: The Impact of Breastfeeding on Infant Survival* was translated into French and Spanish. This policy-oriented booklet demonstrates breastfeeding's profound impact on infant mortality rates in the developing world especially in comparison to other child survival interventions.

(4) Audiovisuals

(a) Videotape: *Breastfeeding: Protecting a Natural Resource*

Five years after its production, this video continues to be one of the most popular of the Division's collection. Now available in English, French, Russian, and Spanish, the video is being distributed throughout the world.

(b) Slide Set

The Division's slide collection of both graphic and photo images has complemented our extensive promotional and educational efforts. These slides help to illustrate the health benefits and fertility impact of breastfeeding. Widespread distribution of these visual aids through field personnel and to various Cooperating Agencies have increased the awareness of the lesser-known benefits of breastfeeding.

Dissemination of slides to field personnel and other organizations was ongoing throughout the life of the project. Some graphic slides will be passed on to Linkages, however, many photo slides would have to be purchased as per contracts with the photographers.

(5) Abstracts

The Division had submitted six abstracts to NCIH for a panel presentation on LAM. All were accepted. Due to budget and time issues as the project winds down, we will not be presenting. No further abstract submissions are planned.

(6) Reviews

Institute staff participated in review of Cooperating Agencies' breastfeeding and family planning materials and regularly reviewed articles for peer reviewed journals. This has resulted in IRH input into journals as diverse as *Human Sexuality*, *Working Mother*, *WHO Bulletin*, *American Journal of Obstetrics and Gynecology*, *American Journal of Public Health*, *Contraception*, *Self*, *Boston Parenting*, and others.

C. Breastfeeding and MCH: Technical Assistance

- (1) Technical Assistance to A.I.D.-funded Cooperating Agencies
(See I.C.1 for the types of activities that are carried out under this area.)
- (2) Technical Assistance to USAID Missions, A.I.D. Regional Bureaus, and Country Programs
(See I.C.2 for the types of activities that are carried out under this area.)
- (3) Technical Assistance to International Donors
- (a) World Health Organization (WHO)/Pan American Health Organization (PAHO)
 - 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 appropriate time for the introduction of contraceptives. The Simplified Methodology has undergone changes, but remains incomplete.
 - International Breastfeeding Collaborating Centre (WHO Collaborating Centre on Breastfeeding): For eight years, the Division has collaborated with and received financial support from a variety of divisions within PAHO and WHO. Since 1991, we have been a WHO Collaborating Centre on Breastfeeding. The IRH Breastfeeding and MCH Division's designation as the IBCC was officially announced at a reception at Georgetown following a March 9,

1992, press conference at Georgetown declaring the launch of the UNICEF Baby Friendly Hospital Initiative (BFHI) in the United States.

The IBCC is under the direction of the Breastfeeding and MCH Division of the IRH. Projects considered IBCC projects have included past and future work on the Code of Marketing of Infant Feeding Substitutes, a Joint Statement for WHO/UNICEF/UNFPA on Breastfeeding and Fertility, a new revision of UNICEF *Facts for Life*, the work on definitions, the dissemination of the book *Breastfeeding: The technical basis*, and work on completing the Simplified Methodology paper and the Textbook Review (see above). Meetings were held with PAHO and WHO on IRH co-funded projects with WHO-supported IBCC projects. IRH/PAHO interaction has been quite productive, resulting in at least five collaborative, co-funded efforts (curriculum, regional planning, videotapes, *Lactancia Para la Madre y el Niño*, the Proceedings on the Conference on *Breastfeeding as a Women's Issue*, the reprint of the booklet, *Breastfeeding: Protecting a Natural Resource*). Remaining agreed upon activities, including the development of a curriculum library, are completed, and IRH has resumed its activity as Technical Secretariat (see (b) UN, below) as requested.

(b) UN

- ACC/SCN: IRH resumed its role as Technical Secretariat for the Working Group on Breastfeeding and Complementary Feeding, formerly IGAB. UNICEF assumed leadership of the group last year and WHO suggested that IRH assist in the role as a WHO Collaborating Center. To date, activities have included acting as the Secretariat at 1996 and 1997 meeting of the Working Group on Breastfeeding and Complementary Feeding held in Ghana and Nepal, respectively.
- BFHI: IRH continues to be an active partner in the WHO/UNICEF breastfeeding promotion efforts. In particular, the Division Director and the Principal Investigator of IRH have been involved in the domestic BFHI initiative.

- WABA: WABA Global Forum: In December 1996, Division staff, Shirley Coly, Tina Skaar, and Peggy Koniz-Booher traveled to Bangkok, Thailand, to attend and participate in the World Alliance for Breastfeeding Action (WABA) Global Forum entitled "Children's Health, Children's Rights: Action for the 21st Century." During the five-day conference the team screened the Institute's latest video, *Taking the First Steps: The Lactational Amenorrhea Method (LAM)*, and presented a workshop on the Lactational Amenorrhea Method.

The Division's workshop was attended by 15 participants representing 12 countries. The participants' knowledge and experience in LAM varied, but several people expressed interest in attending the Institute's April training.

Based on the group discussion at the workshop, three strong recommendations related to LAM and its role in breastfeeding promotion were submitted and approved for inclusion in the Forum's final Plan of Action.

The recommendations were:

1. WABA should support integration of LAM into a variety of health care related programs and services including family planning, child survival, nutrition, maternal and child health, and breastfeeding programs. As a part of this integration, breastfeeding and LAM should be included in training materials for personnel in the above mentioned services as well as medical professional curriculum.
2. WABA should promote LAM as a strategy to achieve exclusive or optimal breastfeeding practices.
3. WABA should promote the inclusion of LAM as a part of Baby Friendly and Mother Friendly Hospital Initiatives.

These recommendations will appear as part of the final plan of action and should be distributed along with the final conference report in 1997.

(4) Technical Assistance to Other Programs

(See I.C.4. for the types of activities that are undertaken in this area.)

To ensure the inclusion of IRH concerns in United States public health sector and professional organizations, every effort is made to ensure that domestic efforts include our input. Therefore, IRH participates in the USDA Breastfeeding Consortium, the DHHS-supported United States Approach to the Baby Friendly Hospital Initiative, the DHHS-supported Breastfeeding Professional Role Delineation Panel, MCHing and other WIC, DHHS, and other panels as invited. Other technical assistance has included document review and task force participation. A consortium subcommittee for health professionals is serving as an ad hoc advisory panel to USDA at this time. In addition, our work has resulted in several articles in popular press and radio.

III. Breastfeeding/LAM/NFP Interface

Activities under this area were designed to introduce LAM and breastfeeding support into NFP programs worldwide. Since the FA and NFP Division is responsible for the introduction of NFP methods, much of the Breastfeeding and MCH Division work in this area has been dedicated to improving guidance for NFP introduction during breastfeeding.

All activities under this area were completed during the last reporting period, except for a training guide which will be completed by the end of the Cooperative Agreement.

C. ADMINISTRATION/EVALUATION

(1) Division Functional Support

(a) Personnel

Miriam Labbok left for a position at USAID as Chief of the Division and Nutrition and Maternal Health in October 1996, and Cate Harrington left for a position at BASICS in February 1997. In January 1997, Peggy Koniz-Booher returned to the Division from her overseas assignment with DA in the

Dominican Republic to help close out the current Cooperative Agreement. Christina Skaar was promoted to Program Associate, and Anne Peterson, who formerly worked for the Division as a student, came on in a permanent position as the Research Analyst. Other full-time faculty and staff remained in their positions with the Division:

- | | |
|--------------------------|--|
| ●Kristin Cooney, MA | Director |
| ●Clifford Sanders | Field Project Officer |
| ●Marcos Arévalo, MD, MPH | Medical Officer |
| ●C. Jared Coffin, MA | Program Coordinator |
| ●Shirley Coly, MA | IEC Officer,
telecommuting from
Colorado |
| ●Sheerin Nahmias | Program Coordinator |

Staff performance reviews were conducted in July 1996, and faculty evaluations were completed in March 1997.

(b) Logistics

We continued our regular system of travel update, calendar to track all personnel absences, abstract submission, and peer-reviewed publication submission.

(c) Budget and Workplan

The budget and workplan were submitted in August 1996 and presented to USAID in September. Several budget revisions were made during the last six months of this reporting period as the project began to wind down. Documentation was submitted to USAID in May 1997 for its annual Portfolio Review.

2. Division Evaluation:

(a) Internal Evaluation

A Division Retreat was held in January 1997 to evaluate progress to date and plan for the completion of the project. An in-depth plan of action for all activities was developed with the participation of all faculty and staff. Subsequent staff meetings used this plan to review progress made on a biweekly basis, to ensure completion of all contractual requirements.

(b) External Evaluation:
Mid-project evaluation: POPTECH

No external evaluation took place during this reporting period.

FOUR: RESOURCE CENTER

GENERAL INFORMATION

The Resource Center of the Institute for Reproductive Health serves as an information center/library established to support and contribute to research, training, and education in the areas of reproductive health, fertility awareness and Natural Family Planning, the fertility aspects of breastfeeding, and the Lactational Amenorrhea Method (LAM). Since there is no longer a Resource Center Coordinator, various Resource Center (RC) responsibilities have been divided among Institute staff. In addition, the Resource Center Assistant supported both the Division of Breastfeeding and MCH and the Division of Fertility Awareness and Natural Family Planning. In addition to providing research services to both divisions, the Assistant was responsible for collecting materials in the Resource Center and disseminating Institute materials.

A. COLLECTION DEVELOPMENT

1. Journals/Monographs

IRH had 112 journal and monograph titles available in the Resource Center.

2. Articles

Sixty-two articles/books on Breastfeeding and 37 on Natural Family Planning were available for distribution.

B. MATERIALS DISSEMINATION

The Resource Center maintained the Distribution Lists for both the Division of Breastfeeding and MCH and the Division of Fertility Awareness and Natural Family Planning. These lists were updated semiannually, and new publications made available for distribution were added.

Requests for Institute materials were directed to the Resource Center. The Resource Center assisted in preparing packets of Institute materials to be distributed to visitors, to be taken overseas by Institute staff, and to assist in the promotion of the Institute.

1. Documents

The Resource Center responded to all material requests. The statistics for the dissemination of BF/NFP Publications is included at the end of this section.

2. Audiovisual Materials

The statistics for dissemination of BF/NFP videos is included at the end of this section.

3. Website

Keeping in step with the latest technological advances and input from the field, the Breastfeeding and MCH Division developed and launched a website during this reporting period. The goal of the website was to provide browsers with an overview of the Division, brief descriptions of field site work, in-depth information on LAM, postpartum family planning methods, and optimal breastfeeding behaviors, and access to the Division's publication list.

The website includes four main sections: 1) **Introduction.** This describes the Division's mission and work in the field. The latest copy of this technical progress report is available to download in this section; 2) **What is LAM?** This section includes an explanation of the method and answers to several frequently asked questions about LAM; 3) **Bookstore.** Here the browser can find our complete publication list and several documents that can be downloaded; and 4) **Connections.** Links to related breastfeeding, family planning, and other international organizations are provided.

The site has hosted a variety of visitors and generated interest in LAM.

Final Activities: The Division will ask WABA to include the LAM pages of the website on their

server to ensure the LAM message continues to be accessible on-line.

C. CONFERENCES

During this reporting period the Institute exhibited at the 1996 American Public Health Association conference in New York from November 17-20. The exhibit targeted to the theme of the conference: "Empowering the Disadvantaged: Social Justice in Reproductive Health," and a selection of publications will be made available for distribution. A workshop was organized on "New Materials in Breastfeeding and LAM." Faculty and staff also made panel and poster presentations.

In March, Shirley Coly attended the Contraceptive Technology Conference in San Francisco to exhibit for the Breastfeeding and MCH Division. As was our experience the previous year, this audience is particularly interested in information and materials on LAM. The client guidelines brochure was particularly popular as was a bibliography of LAM-related articles that was prepared especially for this conference.

D. OTHER

Over 4,000 individuals or organizations have been recorded in the Resource Center mailing list/divisional rolodex, which is maintained in Paradox©. The Breastfeeding and MCH Division rolodex has been used to disseminate our Technical Progress Reports, to prepare specialized mailings for the Division's End of Project conference, and to sort individuals and institutions to receive other targeted mailings.

The Paradox database also is being used to maintain statistics on documents disseminated. Since its initial implementation in November of 1994, this database has been revised, and continues to be updated in order to more effectively capture relevant statistics. The RC Assistant produces a monthly profile of the materials dissemination for both divisions.

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APPENDIX #1
NFP RESULTS MATRIX

**Appendix #1
NFP Results Matrix**

Fertility Awareness & NFP Division	SO #1: Increased use by women & men of voluntary practices that contribute to reduced fertility			
Activity	1.1: New and improved technologies and approaches for family planning programs	1.2: Improved policy environment and increased global resources for family planning programs	1.3: Enhanced capacity for public, private, NGO, and community-based organizations to design, implement, evaluate, and finance sustainable family planning programs	1.4: Increased access to, quality of, cost effectiveness of, and motivation for use of family planning, breastfeeding, and selected reproductive health information and services
Changes in Cervical Mucus which Signify the Fertile Period of the Menstrual Cycle	X			
General Coordination with Industry for Development of Ovulation Prediction Home Test Kit	X			
Probability Conception on Different Days of the Menstrual Cycle	X			
Papers and Presentations on State-Of-The-Art in Ovulation Prediction	X			
Library of Ovulation Prediction Devices	X			
Ovulation Prediction Poster Session	X			
Surveillance of NFP and Pregnancy Outcomes	X			
Regional Assessment of Congenital Malformations (ECLAMC)	X			
Calendar Method Efficacy and Acceptability	X			
Efficacy review paper and presentation	X			
Development of more accurate and acceptable calendar method formulas	X			
WHO-IRH Study on Periodic Abstinence/ Calendar Method Use in Developing Countries	X			
DHS/CDC Surveillance of Periodic Abstinence Users	X			
Financial and Technical Support for NFP in Philippines		X	X	X
NFP Expansion Through Health Care Providers, ATLF, in Peru		X	X	X
Management Development in NFP Programs/Africa		X	X	X

SO #1 CONTINUED Fertility Awareness & NFP Division Activity	1.1: New and improved technologies and approaches for family planning programs	1.2: Improved policy environment and increased global resources for family planning programs	1.3: Enhanced capacity for public, private, NGO, and community-based organizations to design, implement, evaluate, and finance sustainable family planning programs	1.4: Increased access to, quality of, cost effectiveness of, and motivation for use of family planning, breastfeeding, and selected reproductive health information and services
The Management Information System for NFP Programs Pilot Project	X		X	
Training of NFP Trainers in Lviv, Ukraine		X	X	X
Operations Research for NFP in Philippines	X			
Curricula for RHA Field Projects			X	X
Pilot Study to Improve FA/RHA in Indigenous Communities of Chuquisaca, Bolivia	X			X
Pilot Study to test the impact of FA/RHA education on Adolescents in Mexico	X			X
Pilot Study of FA/RHA Impact on Indigenous Adolescents in Ecuador (CEMOPLAF)	X		X	X
Pilot Study to Determine the Impact of FA Education on the Knowledge, Attitudes, and Behavior of Condom Users	X			
Teen Star Program, Santiago, Chile	X			X
Health Awareness Training and Education in Peru	X		X	X
Presentations and Papers	X			
TA to A.I.D.-funded Cooperating Agencies		X	X	X
TA to USAID Missions, A.I.D. Regional Bureaus, and Country Programs		X	X	X
TA to International Donors (WHO, UN)		X	X	X
TA to Other Programs		X	X	X

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Fertility Awareness & NFP Division	SO #2: Increased use of safe pregnancy, women's nutrition, family planning, and other key reproductive health interventions			
Activity	2.1: Approaches and technologies to enhance key reproductive health interventions identified, developed, evaluated, and disseminated	2.2: Improved policies and increased public and private sector resources and capacity to deliver key reproductive health services	2.3: Access to essential obstetric services increased in selected priority countries	2.4: Quality of essential obstetric services increased in selected countries
Technical assistance to Support Programs in NFP in Haiti		X	X	X
Curricula for RHA Field Projects		X	X	X
Pilot Study to Improve FA/RHA in Indigenous Communities of Chuquisaca		X	X	X
Pilot Study to test the impact of FA/RHA education on Adolescents in Mexico				
Pilot Study of FA/RHA Impact on Indigenous Adolescents in Ecuador (CEMOPLAF)				
Pilot Study to Determine the Impact of FA Education on the Knowledge, Attitudes, and Behavior of Condom Users	X			
Reproductive Health Awareness Training and Education in Peru		X	X	X

Fertility Awareness & NFP Division	SO #4: Increased use of proven interventions to reduce HIV/STD transmission					
Activity	4.1: Increased quality, availability and demand for information and services to change sexual risk behaviors and cultural norms in order to reduce the transmission of HIV.	4.2: Enhanced quality, availability and demand for STI prevention and management services.	4.3: Improved knowledge about, and capacity to address, the key policy, cultural, financial and other contextual constraints to preventing and mitigating the impacts of HIV/AIDS.	4.4: Strengthened and expanded private sector organizations' capacity to deliver HIV/AIDS information and services.	4.5: Improved capacity to generate, disseminate and use data to monitor and evaluate HIV/AIDS/STI levels, trends and program impacts.	4.6: Quality and timely assistance provided to partners (regional bureaus, missions, other-donors, host country counterparts, etc.) to ensure effective implementation of HIV/AIDS programs.
Curricula for RHA Field Projects	X	X	X	X		
Pilot Study to test the impact of FA/RHA education on Adolescents in Mexico	X	X	X	X		
Pilot Study of FA/RHA Impact on Indigenous Adolescents in Ecuador (CEMOPLAP)	X	X	X	X		
Reproductive Health Awareness Training and Education in Peru	X	X	X	X		

APPENDIX #2
BF RESULTS MATRIX

**Appendix #2
BF Results Matrix**

BF/MCH Division	SO #1: Increased use by women & men of voluntary practices that contribute to reduced fertility			
Activity	1.1: New and improved technologies and approaches for family planning programs	1.2: Improved policy environment and increased global resources for family planning programs	1.3: Enhanced capacity for public, private, NGO, and community-based organizations to design, implement, evaluate, and finance sustainable family planning programs	1.4: Increased access to, quality of, cost effectiveness of, and motivation for use of family planning, breastfeeding, and selected reproductive health information and services
I.A.1 Chile: Clinical Study of LAM	X	X	X	X
I.A.2 Ecuador: LAM in a Family Planning Setting	X			X
I.A.3 Georgetown University Multicenter of LAM	X	X		
I.A.4 Focus Groups	X			
I.A.5 Field Projects	X	X	X	X
I.B.1 Guidelines for Breastfeeding, Family Planning, and the Lactational Amenorrhea Method	X	X		X
I.B.2 Publications and Papers	X	X		
I.B.3a Guatemala: LAM in LLLI		X	X	X
I.B.3b LAM in Nurse-Midwifery		X		X
I.B.4 Audiovisual	X	X	X	X
I.B.5 Presentations and Support of Professional Meetings		X		
I.B.6 International Training in Breastfeeding, LAM, and Postpartum Family Planning	X	X	X	X
I.B.7 End of Project Meeting: Bellagio and Beyond	X	X		
I.C.1 TA to A.I.D.-funded Cooperating Agencies	X	X	X	X
I.C.2 TA to USAID Missions, A.I.D. Regional Offices, and Country Programs	X	X	X	X
I.C.3 TA to International Donors	X	X		X
I.C.4 TA to Other Programs	X	X		X
II.A.1 University of California at Davis: Effect of Introducing Complementary Foods on Breastmilk Intake and Maternal Fertility in Honduras				X

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II.A.2	Technical Symposia				X
II.A.3	GU Clinical Studies				X
II.A.4	Data Analysis/Surveys	X	X		X
II.B.1	Textbooks				X
II.B.2	Curricula			X	X
II.B.2.a	Development of Curriculum for International Training in BF/LAM/FP			X	X
II.B.2.b	Lactation Education for Health Professionals			X	X
II.B.2.c	Indian Medical Association LAM Self-Study Curricula and Lactation Management Course			X	X
II.B.3	Written Materials				X
II.B.4	Audiovisuals				X
II.B.5	Abstracts				X
II.B.6	Conferences		X		X
II.C.1	TA to A.I.D.-Funded Cooperating Agencies				X
II.C.2	TA to USAID Missions, A.I.D. Regional Bureaus, and Country Programs				X
II.C.3	TA to International Donors (WHO, UN)				X
II.C.4	TA to Other Programs				X
III.A.	BF/LAM/NFP Interface: Research and Pilots	X	X	X	X
III.B.	BF/LAM/NFP Interface: Education	X	X	X	X
IV.	Administration/Evaluation/Resource Center				

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BF/MCH Division	SO #2: Increased use of safe pregnancy, women's nutrition, family planning, and other key reproductive health interventions			
Activity	2.1: Approaches and technologies to enhance key reproductive health interventions identified, developed, evaluated, and disseminated	2.2: Improved policies and increased public and private sector resources and capacity to deliver key reproductive health services	2.3: Access to essential obstetric services increased in selected priority countries	2.4: Quality of essential obstetric services increased in selected countries
I.A.1 Chile: Clinical Study of LAM	X	X		
I.A.2 Ecuador: LAM in a Family Planning Setting	X			X
I.A.3 Georgetown University Multicenter of LAM	X	X		
I.A.4 Focus Groups	X			
I.A.5 Field Projects	X	X	X	X
I.B.1 Guidelines for Breastfeeding, Family Planning, and the Lactational Amenorrhea Method	X			
I.B.2 Publications and Papers	X	X		
I.B.3a Guatemala: LAM in LLLI			X	X
I.B.3b LAM in Nurse-Midwifery	X			X
I.B.4 Audiovisual	X	X		
I.B.5 Presentations and Support of Professional Meetings	X	X		
I.B.6 International Training in Breastfeeding, LAM, and Postpartum Family Planning	X		X	X
I.B.7 End of Project Meeting: Bellagio and Beyond	X	X		
I.C.1 TA to A.I.D.-funded Cooperating Agencies	X	X		X
I.C.2 TA to USAID Missions, A.I.D. Regional Offices, and Country Programs	X	X		X
I.C.3 TA to International Donors	X	X		X
I.C.4 TA to Other Programs	X	X		X
II.A.1 University of California at Davis: Effect of Introducing Complementary Foods on Breastmilk Intake and Maternal Fertility in Honduras	X			X

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II.A.2	Technical Symposia				
II.A.3	GU Clinical Studies	X			
II.A.4	Data Analysis/Surveys	X	X		
II.B.1	Textbooks				
II.B.2	Curricula	X			X
II.B.2.a	Development of Curriculum for International Training in BF/LAM/FP	X			X
II.B.2.b	Lactation Education for Health Professionals	X			X
II.B.2.c	Indian Medical Association LAM Self-Study Curricula and Lactation Management Course	X			X
II.B.3	Written Materials	X			
II.B.4	Audiovisuals	X			
II.B.5	Abstracts	X			
II.B.6	Conferences	X	X		X
II.C.1	TA to A.I.D.-Funded Cooperating Agencies	X	X	X	X
II.C.2	TA to USAID Missions, A.I.D. Regional Bureaus, and Country Programs	X	X	X	X
II.C.3	TA to International Donors (WHO, UN)	X	X		X
II.C.4	TA to Other Programs	X	X		X
III.A.	BF/LAM/NFP Interface: Research and Pilots	X		X	X
III.B.	BF/LAM/NFP Interface: Education	X			X
IV.	Administration/Evaluation/Resource Center				

BF/MCH Division	SO #3: Increased use of key child health and nutrition interventions			
Activity	3.1: New and improved cost-effective interventions developed and disseminated	3.2: Improved policies & increased global, national, and local resources for appropriate child health interventions	3.3: Enhanced knowledge of key child health and nutrition behaviors/practices in selected countries	3.4: Improved quality and availability of key child health/nutrition services
I.A.1 Chile: Clinical Study of LAM	X	X	X	X
I.A.2 Ecuador: LAM in a Family Planning Setting	X		X	X
I.A.3 Georgetown University Multicenter of LAM	X	X	X	X
I.A.4 Focus Groups	X		X	
I.A.5 Field Projects	X	X	X	X
I.B.1 Guidelines for Breastfeeding, Family Planning, and the Lactational Amenorrhea Method	X	X	X	
I.B.2 Publications and Papers	X	X	X	
I.B.3a Guatemala: LAM in LLLI			X	X
I.B.3b LAM in Nurse-Midwifery	X		X	X
I.B.4 Audiovisual	X	X	X	
I.B.5 Presentations and Support of Professional Meetings	X	X	X	
I.B.6 International Training in Breastfeeding, LAM, and Postpartum Family Planning	X	X	X	X
I.B.7 End of Project Meeting: Bellagio and Beyond	X	X		
I.C.1 TA to A.I.D.-funded Cooperating Agencies	X	X	X	X
I.C.2 TA to USAID Missions, A.I.D. Regional Offices, and Country Programs	X		X	X
I.C.3 TA to International Donors	X	X	X	X
I.C.4 TA to Other Programs	X	X	X	X
II.A.1 University of California at Davis: Effect of Introducing Complementary Foods on Breastmilk Intake and Maternal Fertility in Honduras	X			
II.A.2 Technical Symposia				

II.A.3	GU Clinical Studies			X	
II.A.4	Data Analysis/Surveys		X	X	
II.B.1	Textbooks			X	
II.B.2	Curricula	X		X	
II.B.2.a	Development of Curriculum for International Training in BF/LAM/FP	X		X	
II.B.2.b	Lactation Education for Health Professionals	X		X	
II.B.2.c	Indian Medical Association LAM Self-Study Curricula and Lactation Management Course	X		X	
II.B.3	Written Materials	X	X	X	
II.B.4	Audiovisuals	X	X	X	
II.B.5	Abstracts	X			
II.B.6	Conferences	X	X	X	
II.C.1	TA to A.I.D.-Funded Cooperating Agencies	X		X	X
II.C.2	TA to USAID Missions, A.I.D. Regional Bureaus, and Country Programs	X		X	X
II.C.3	TA to International Donors (WHO, UN)	X		X	X
II.C.4	TA to Other Programs	X		X	X
III.A.	BF/LAM/NFP Interface: Research and Pilots			X	X
III.B.	BF/LAM/NFP Interface: Education	X		X	X
IV.	Administration/Evaluation/Resource Center				

APPENDIX #3
FA/NATURAL FAMILY DIVISION TRAVEL PLAN

Appendix #3

FA/NATURAL FAMILY DIVISION TRAVEL PLAN STAFF AND CONSULTANTS JULY 1, 1996 - JUNE 30, 1997

TRAVELER	SITE	PURPOSE	DATE	STATUS
M.Seidman	Philippines	Participate in OR workshop with PFNFP, Pop Council and local government officials	8/96	Completed
V.Jennings ¹	New Zealand	Participate in the New Zealand Scientific NFP Meeting	8/96	Completed
M.Marshall	Ecuador, Perú	Projects monitoring and activities implementation in RHA	8-9/96	Completed
C.Pyper	Tanzania, Zambia	Make presentation on RHA at UMATI Symposium on Contraceptive Technology; explore support possibilities for RHA in Tanzania and Zambia	8/96	Completed
M.Marshall	Philippines	Provide TA to PFNFP in the conduct of a TOT on NFP	9-10/96	Completed
A.Duque-Cooke	Mexico	Carry-out Training in FA	9/96	Completed
J.Cachan	Bolivia	Project monitoring and TA	9/96	Completed
V.Lamprecht	Spain	Present paper "Effectiveness of Natural Family Planning Methods: An Update and New Research"; explore MIS expansion; make contacts for physician KAP paper.	10-11/96	Completed
J.Cachan	Ecuador	Project evaluation (Stage I of Project)	10/96	Completed
J.Cachan, S.Horna(Peru)	Bolivia	Conduct TOT in NFP for a technical team of Catholic Relief Services from three provinces	10/96	Completed
V.Jennings M.Seidman M.Penuela	New York	Present papers, attend meeting, represent Institute as an Exhibitor at the APHA 124th Annual Meeting	11/96	Completed

¹Partial funding for this trip was provided by University of Auckland.

TRAVELER	SITE	PURPOSE	DATE	STATUS
J.Cachan	Ecuador	Assist CEMOPLAF in preparation of end-of-project dissemination meeting and provide TA in development of workplan and timeline for a follow-on project	1/97	Completed
C. Pyper, J. Knight	Ukraine	Training in NFP	10/96	Completed
J.Cachan, M.Marshall S.Horna(Peru)	Bolivia	Conduct training in RHA for health providers of seven local institutions and NFP training for health promoters in three CRS project sites	2-3/97	Completed
J.T.Queenan, J.L.Simpson	Argentina, Chile	Close down major seven-year prospective, multicenter, cohort study on aging gametes in NFP; discuss and rewrite papers in progress; and resolve administrative matters	2/97	Completed
M.Seidman	Philippines	Assist PFNFP in refining design for OR study and implementation of MIS; review activities with DOH; collaborate with Pop Council in developing joint RHA OR study on male involvement.	2/97	Completed
21 participants	Washington, D.C.	Participate in the Natural Family Planning and Reproductive Health Awareness: Expanding Options and Improving Health End-of-Project Meeting	4/97	Completed
V.Lamprecht	Switzerland	Attend Investigator's Meeting of the study Periodic Abstinence and Calendar Method Use in Developing Countries	4/97	Completed
J.Cachan; M.Marshall K.Aumack	Ecuador	Attend project dissemination meeting and carry out training in RHA for CEMOPLAF health providers and educators and at the School of Medicine of the Catholic University for fifth-semester students	4/97	Completed

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APPENDIX #4
BF AND MCH DIVISION TRAVEL PLAN

Appendix#4

NATURAL FAMILY DIVISION TRAVEL PLAN
STAFF AND CONSULTANTS
JULY 1, 1996 - JUNE 30, 1997

TRAVELER	SITE	PURPOSE	DATE	STATUS
M.Seidman	Philippines	Participate in OR workshop with PFNFP, Pop Council and local government officials	8/96	Completed
V.Jennings ¹	New Zealand	Participate in the New Zealand Scientific NFP Meeting	8/96	Completed
M.Marshall	Ecuador, Perú	Projects monitoring and activities implementation in RHA	8-9/96	Completed
C.Pyper	Tanzania, Zambia	Make presentation on RHA at UMATI Symposium on Contraceptive Technology; explore support possibilities for RHA in Tanzania and Zambia	8/96	Completed
M.Marshall	Philippines	Provide TA to PFNFP in the conduct of a TOT on NFP	9-10/96	Completed
A.Duque-Cooke	Mexico	Carry-out Training in FA	9/96	Completed
J.Cachan	Bolivia	Project monitoring and TA	9/96	Completed
V.Lamprecht	Spain	Present paper "Effectiveness of Natural Family Planning Methods: An Update and New Research"; explore MIS expansion; make contacts for physician KAP paper.	10-11/96	Completed
J.Cachan	Ecuador	Project evaluation (Stage I of Project)	10/96	Completed
J.Cachan, S.Horna(Peru)	Bolivia	Conduct TOT in NFP for a technical team of Catholic Relief Services from three provinces	10/96	Completed

¹Partial funding for this trip was provided by University of Auckland.

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TRAVELER	SITE	PURPOSE	DATE	STATUS
V.Jennings M.Seidman M.Penuela	New York	Present papers, attend meeting, represent Institute as an Exhibitor at the APHA 124th Annual Meeting	11/96	Completed
J.Cachan	Ecuador	Assist CEMOPLAF in preparation of end-of-project dissemination meeting and provide TA in development of workplan and timeline for a follow-on project	1/97	Completed
J.Cachan, M.Marshall S.Horna(Peru)	Bolivia	Conduct training in RHA for health providers of seven local institutions and NFP training for health promoters in three CRS project sites	2-3/97	Completed
J.T.Queenan, J.L.Simpson	Argentina, Chile	Close down major seven-year prospective, multicenter, cohort study on aging gametes in NFP; discuss and rewrite papers in progress; and resolve administrative matters	2/97	Completed
M.Seidman	Philippines	Assist PFNFP in refining design for OR study and implementation of MIS; review activities with DOH; collaborate with Pop Council in developing joint RHA OR study on male involvement.	2/97	Completed
21 participants	Washington, D.C.	Participate in the Natural Family Planning and Reproductive Health Awareness: Expanding Options and Improving Health End-of-Project Meeting	4/97	Completed
V.Lamprecht	Switzerland	Attend Investigator's Meeting of the study Periodic Abstinence and Calendar Method Use in Developing Countries	4/97	Completed
J.Cachan; M.Marshall K.Aumack	Ecuador	Attend project dissemination meeting and carry out training in RHA for CEMOPLAF health providers and educators and at the School of Medicine of the Catholic University for fifth-semester students	4/97	Completed

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APPENDIX #4
BREASTFEEDING AND MCH DIVISION TRAVEL PLAN
STAFF AND CONSULTANTS
JULY 1, 1996 THROUGH JUNE 30, 1997

TRAVELER	SITE	PURPOSE	DATE	STATUS
Miriam Labbok	Domestic	TA to NGOs (Wellstart)	7/31-8/4/96	Completed
Miriam Labbok	Domestic	TA to NGOs (ABM)	10/96	Completed
Miriam Labbok	Domestic	TA to NGOs (NCIH)	9/96	Completed
Clifford Sanders	El Salvador	Project Monitoring and TA	9/96	Completed
Clifford Sanders	Mexico	Project Development and TA	10/96	Cancelled
Shirley Coly	Washington, DC	Meetings with IRH staff	9/96	Completed
Marcos Arévalo	Bolivia	Project Monitoring and Training Conferences	10/96	Completed
Kristin Cooney Clifford Sanders Jed Coffin Marcos Arévalo Sheerin Nahmias Tina Skaar Cate Harrington	New York	APHA	11/96	Completed
Shirley Coly Tina Skaar	Bangkok	WABA Forum ACC/SCN Working Group Meeting	12/96	Completed
Marcos Arévalo	Bolivia	Training of Trainers	12/96	Completed
Shirley Coly	Washington, DC	Meetings with IRH Staff	1/97	Completed
Marcos Arévalo	Perú	Training Workshop	2/97	Completed
Clifford Sanders	Ecuador	Project Monitoring	2/97	Cancelled
Clifford Sanders	El Salvador	Project Monitoring	2/97	Completed

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Peggy Koniz-Booher	Philippines Nepal	Training/Project Monitoring ACC/SCN Meeting	3/97	Completed
Shirley Coly	Washington, DC	IRH Training	3/97	Completed
Shirley Coly	San Francisco, CA	Contraceptive Technology Conference	3/97	Completed
Marcos Arévalo	Perú	Project Monitoring	3/97	Completed
Marcos Arévalo	Bolivia	Project Monitoring	4/97	Completed
Clifford Sanders	El Salvador	Project Monitoring	4/97	Completed
Peggy Koniz-Booher	Philippines	Training of Trainers Project Follow-up	4/97	Completed
Shirley Coly	Washington, DC	EOP Conference	5/97	Completed
Shirley Coly	Washington, DC	Close up activities	6/97	Completed
CONSULTANT/SUBCONTRACTOR TRAVEL				
Elena Stroot	L'viv, Ukraine	IRH/BF Seminar	9/96	Completed
Jennifer El-Warari	Amman, Jordan	Project Monitoring	9/96	Completed
Peggy Koniz-Booher	Bangkok	WABA Forum	12/96	Completed
Jennifer El-Warari	Washington, DC	Philippines training	1/97	Completed
Ralph Curiano	Washington, DC	Training, Workplan development	1/97	Completed
Jennifer El-Warari	Amman, Jordan	Project Monitoring	2-3/97	Completed
Jennifer El-Warari	Washington, DC	IRH International Training	3/97	Completed
10-15 Participants	Worldwide to DC	IRH International Training	3/97	Completed
30-40 Participants	Worldwide to DC	End of Project Conference	5/97	Completed
Jennifer El-Warari	Amman, Jordan Washington, DC	End of project monitoring and evaluation End of Project Conference	4-5/97	Completed

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**APPENDIX #5
PUBLICATIONS**

APPENDIX #5

PUBLICATIONS

July 1, 1996 - June 30, 1997

Bitto A, Gray RH, et al. "Adverse Outcomes of Planned and Unplanned Pregnancies among Users of Natural Family Planning: a Prospective Study." *American Journal of Public Health*; 1997; 87:338-343.

Breastfeeding Saves Lives: The Impact of Breastfeeding on Infant Survival. Second Edition. 1996. (Washington DC: Institute for Reproductive Health).

Coffin CJ, Labbok M and Belsey M. 1997. "Breastfeeding Definitions." *Contraception* 55.

Cooney K, Koniz-Booher P, and Coly S. 1997. *Taking the First Steps: A Decade of Promoting the Lactational Amenorrhea Method for Family Planning*. (Washington DC: Institute for Reproductive Health).

Courant GT, Labbok MH, Saadeh R and Peck N. 1997. "An evaluation of the breastfeeding content of selected medical textbooks: a technical report." Coffin CJ and Skaar CM, eds. IRH Monograph (Washington, DC: Institute for Reproductive Health).

Family Planning Methods for the Breastfeeding Woman: the Lactational Amenorrhea Method. 1997. (Washington DC: Institute for Reproductive Health).

Hight-Laukaran V, Labbok M, Peterson A, Fletcher V, von Hertzen H and Van Look P. 1997. "Multicenter Study of the Lactational Amenorrhea Method (LAM): II. Acceptability, Utility, and Policy Implications." *Contraception* 55.

Jennings V. "Efficacy of Natural Family Planning Methods: Issues and Challenges." *Proceedings of Natural Family Planning Towards 2000*. (New Zealand: 1996).

Jennings V. "Reproductive Health Awareness." *Proceedings of Natural Family Planning Towards 2000*. (New Zealand: 1996).

Jennings V. "Natural Family Planning: Can it Contribute to Culture Change?" *Proceedings of Natural Family Planning Towards 2000*. (New Zealand: 1996).

*Labbok M, Belsey M and Coffin CJ. "A call for consistency in definitions of the term 'breastfeeding.'" *American Journal of Public Health*, submitted for publication, 1997.

*Labbok M and Coffin CJ. "A call for consistency in definition of breastfeeding behaviors." *Social Science & Medicine*, submitted for publication, 1997.

*Labbok MH, Coffin CJ, Courant GT, and Saadeh R. "Do medical textbooks have accurate and complete breastfeeding information? A review and evaluation of breastfeeding content in selected pediatric, obstetrics and gynecology, infant nutrition, and breastfeeding textbooks." *Journal of the*

American Medical Association, submitted for publication, 1997.

Labbok M, Hight-Laukaran V, Peterson A, Fletcher V, von Hertzen H and Van Look P. 1997. "Multicenter Study of the Lactational Amenorrhea Method (LAM): I. Efficacy, Duration, and Implications for Clinical Guidance." *Contraception* 55:.

Labbok M, Pérez-Escamilla R, Peterson A and Coly S. 1997. Breastfeeding and Child Spacing: Country Profiles. (Washington DC: Institute for Reproductive Health).

Lamprecht V, Grummer-Strawn L. *Development of New Formulas to Identify the Fertile Time of the Menstrual Cycle. Contraception*; 1996; 54:339-343.

American College of Nurse-Midwives and Institute for Reproductive Health. 1996. Lactation Education for Health Professionals: Annotated Curriculum. Coly S ed. (Washington DC: Institute for Reproductive Health).

Valdés V, Labbok M, Pugin E, Pérez A, Aravena R and Catalán S. "Full breastfeeding with proper support for nursing mothers ensures optimal infant growth for six months: results of a prospective study" *Pediatrics*, submitted for publication, 1997.

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**APPENDIX #6
PRESENTATIONS**

APPENDIX #6

PRESENTATIONS

INSTITUTE SPONSORED PRESENTATIONS

July 1, 1996 - June 30, 1997

Title	Meeting	Presenter
The Role of NFP in Culture Change	50th Anniversary of Family Care, Oxford, England, June 1996	Jennings, V
Efficacy of Natural Family Planning Methods: Issues and Challenges	Natural Family Planning Towards 2000, New Zealand, August 1996	Jennings, V
Reproductive Health Awareness	Natural Family Planning Towards 2000, New Zealand, August 1996	Jennings, V
Natural Family Planning: Can it Contribute to Culture Change?	Natural Family Planning Towards 2000, New Zealand, August 1996	Jennings, V
Mortalidad Materna en las Américas: Plan de Acción	Keynote address, National Association of Midwives, Quito, Ecuador, August 1996	Marshall, M
Autoconciencia de la Salud Reproductiva: Un Nuevo Enfoque	Midwifery Faculty and Invited Guests, University of San Martín de Porres, Lima, Peru, August 1996	Marshall, M
Reproductive Health Awareness	Symposium on Contraceptive Technology Update and Emergency Contraception, Tanzania, August 1996	Pyper, C
Lessons Learned in Public Private Partnerships and Expansion of NFP Services: Implications for Operations Research	DOH, PFNFP and Population Council OR Training Workshop to LGUs, Philippines, August 1996	Seidman, M
Health Risks Associated with Unplanned Pregnancies	Satellite Lecture with Schools of Medicine, Nursing and Social Sciences, Pontificia Universidad Católica del Ecuador, Quito, Ecuador, October 1996	Gadow, E Leguizamon, G Sebastiani, M
Autoconciencia de la Salud Reproductiva: Un Nuevo Enfoque	Satellite Lecture with Schools of Medicine, Nursing and Social Sciences, Pontificia Universidad Católica del Ecuador, Quito, Ecuador, October 1996	Marshall, M
Social Justice in Everyday Life: Public Health Initiatives as Catalysts to Action	124rd Annual Meeting of the American Public Health Association, New York, NY, November 1996	Coffin, J Skaar, C Sanders, C
Breastfeeding and Child Spacing	Invited lecture, Lactation Consultant Training Program, Georgetown University National Capital Lactation Center, Washington, DC, November 1996	Cooney, K

Contraceptive Use By Women With Unintended Pregnancies: Results from Latin America	124th American Public Health association Annual Meeting, New York, November 1996	Jennings, V
Effectiveness of Natural Family Planning Methods: An Update and New Research	5th International Symposium on Recent Advances on Natural Fertility Regulation, Spain, November 1996	Lamprecht, V
Decisions in Incorporating an Information Based Family Planning Method into a Community-Based Distribution System	124rd Annual Meeting of the American Public Health Association, New York, NY, November 1996	Sanders, C
Planning a presentation on LAM	Training of Trainers workshop in Cochabamba, Bolivia, December 1996	Arévalo, M
Fundamentals of LAM	Training of Trainers workshop in Cochabamba, Bolivia, December 1996	Arévalo, M
LAM Effectiveness	Training of Trainers workshop in Cochabamba, Bolivia, December 1996	Arévalo, M
Biological basis of LAM	Training of Trainers workshop in Cochabamba, Bolivia, December 1996	Arévalo, M
Implementing LAM programs	Training of Trainers workshop in Cochabamba, Bolivia, December 1996	Arévalo, M
LAM Case Studies	Training of Trainers workshop in Cochabamba, Bolivia, December 1996	Arévalo, M
Linking Health Care Services Using the Lactational Amenorrhea Method	Workshop presented at World Alliance for Breastfeeding Action (WABA) Global Forum entitled "Children's Health, Children's Rights: Action for the 21st Century," December 1996, Bangkok, Thailand	Coly, S Skaar, C Koniz-Booher, P
Behavior Modification Theories and Program Application	IN-service Research Presentation, Georgetown University, December 1996	Hedwige, SL
Biological basis of LAM	Training of Trainers workshop in Ayacucho, Perú, February 1997	Arévalo, M
Fundamentals of LAM	Training of Trainers workshop in Ayacucho, Perú, February 1997	Arévalo, M
Planning a Presentation on LAM	Training of Trainers workshop in Ayacucho, Perú, February 1997	Arévalo, M
LAM Case Studies	Training of Trainers workshop in Ayacucho, Perú, February 1997	Arévalo, M
LAM Effectiveness	Training of Trainers workshop in Ayacucho, Perú, February 1997	Arévalo, M

Methodology for Training in LAM	Meeting of CA representatives in Lima, Perú, February 1997	Arévalo, M
Structuring a Workplan to Implement a LAM Program	Training of Trainers workshop in Ayacucho, Perú, February 1997	Arévalo, M
Physiology of LAM	Meeting of CA representatives in Lima, Perú, February 1997	Arévalo, M
Issues in Breastfeeding	Grand Rounds, Perinatal Committee, Department of OB/GYN, Alexandria Hospital, Alexandria, VA, February 1997	Cooney, K
Overview of Reproductive Health Awareness	Update on NFP for DOH Staff, Ministry of Health, Philippines, February 1997	Seidman, M
MIS for LAM	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Arévalo, M
LAM and other contraceptive methods	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Arévalo, M
Breastfeeding and LAM in family planning projects	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Arévalo, M
Developing a LAM IEC Strategy	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Coly, S
Breastfeeding and Employment	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Cooney, K
Counseling Skills: Involving Men in Breastfeeding and LAM	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Cooney, K

Breastfeeding, LAM, and Working Mothers	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Cooney, K
Development of Action Plans to Integrate Breastfeeding and LAM into Existing Programs	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Cooney, K
Incorporating LAM into MCH/Child Survival Projects	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Cooney, K
Monitoring and Evaluation of Breastfeeding and LAM Programs	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Cooney, K
Training Considerations for LAM	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Cooney, K
Contraceptive Use By Women With Unintended Pregnancies: Results from Latin America	25th Annual Psychosocial Workshop, Washington, D.C., March 1997	Jennings, V
Monitoring and Evaluation	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Peterson, A
The Clinical Efficacy of LAM and the Multicenter LAM Study	International Training in Breastfeeding, the Lactational Amenorrhea Method, and Postpartum Reproductive Health, Institute for Reproductive Health, Georgetown University, Washington, DC, March 1997	Peterson, A
Conclusions from CEMOPLAF's Fertility Awareness Education Project	End of Project Meeting, Ecuador, April 1997	Cachan, J
Natural Family Planning and Reproductive Health Awareness: Expanding Options and Improving Health	End of Project Meeting, Georgetown University, April 1997	*See Appendix #7

Monitoring and MIS in LAM projects	Institute for Reproductive Health Breastfeeding and MCH Division End of Project Conference, Bellagio and Beyond: Breastfeeding and LAM in Reproductive Health, Washington, DC, May 1997	Arévalo, M
LAM Services in a Reproductive Health Awareness Context	Satellite Lecture with Schools of Medicine, Nursing and Social Sciences, Pontificia Universidad Católica del Ecuador, Quito, Ecuador, May 1997	Arévalo, M Sevilla, F Lorencikova M
Fundamentals of LAM	Satellite Conference to Pontificia Universidad Católica de Ecuador, originated in Washington DC, May 1997	Arévalo, M
Physiology of LAM	Satellite Conference to Pontificia Universidad Católica de Ecuador, originated in Washington DC, May 1997	Arévalo, M
Implementing LAM through current initiatives	Multicenter Principal Investigators' Meeting, IRH, Washington, DC, May 1997	Arévalo, M
Domestic Violence: a Reproductive Issue. . . and More	Satellite Lecture with Schools of Medicine, Nursing and Social Sciences, Pontificia Universidad Católica del Ecuador, Quito, Ecuador, May 1997	Marshall, M Hardeman, P Heise, L
Fertility Awareness Education for Adolescents	24th National Council for International Health Annual Conference, Crystal City, Virginia, June 1997	Cachan, J
Breastfeeding and Child Spacing	Invited lecture, Lactation Consultant Training Program, Georgetown University National Capital Lactation Center, Washington, DC, June 1997	Cooney, K
Population, Health and Nutrition Center and Human Capacity Development Center, Information Technology Learning Fair	Teaching Reproductive Health Awareness with Distance Learning, Washington, D.C., June 1997	Ferrigno, J
LAM in El Salvador: Enhancing Effectiveness and Building Partnerships	National Conference for International Health, Washington, DC, June 1997	Sanders, C
Improving Services Through Better Information	24th National Council for International Health Annual Conference, Crystal City, Virginia, June 1997	Seidman, M
Strategies for Building Public Private Partnerships for Expanding Family Planning Services	24th National Council for International Health Annual Conference, Crystal City, Virginia, June 1997	Seidman, M

APPENDIX #7
**“NATURAL FAMILY PLANNING AND REPRODUCTIVE HEALTH AWARENESS:
EXPANDING OPTIONS AND IMPROVING HEALTH”**

Appendix #7

“Natural Family Planning and Reproductive Health Awareness: Expanding Options and Improving Health”

April 2 - 5, 1997

Leavey Conference Center, Georgetown University

Presenters:

Alberto Ferreira Poblete, Ph.D Candidate, Royal Postgraduate Medical School, UK

A review of models for the probability of conception in a given cycle with respect to ovulation

Clarice Weinberg, Ph.D., National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina

Model-based approaches to studying fertility and contraceptive efficacy

Guido Masarotto, Ph.D., University of Padua, Italy

Probability of conception on different days of the menstrual cycle: an ongoing exercise

C. Alvin Paulsen, M.D., University of Washington

Is Male Reproductive Health at Risk: Longitudinal Semen Analysis Studies

Guido Masarotto, Ph.D., University of Padua, Italy

Recent Perspectives on Male and Female Fecundability

Michael Zinaman, MD TO BE ADDED

Antonio Martinez, M.D., Institute for Reproductive Medicine, Argentina

Prediction and detection of the fertile phase of the menstrual cycle: An overview

Keith May, Ph.D., UNIPATH, UK TO BE ADDED

David Katz, Ph.D.

Analysis of Pre-ovulatory Changes in Cervical Mucus Hydration and Sperm Penetrability

Virginia Lamprecht, M.S., Georgetown University

Natural Family Planning Effectiveness: Evaluating Published Reports

Anibal Faundes, M.D., CEMICAMP, Brazil

Simplifying NFP: A Pilot Study of the "Collar" Method in Brazil

John Bonnar, M.D., Trinity College, Dublin

Alternatives to Vaginal Intercourse Practiced During the Fertile Time Among Calendar Method Users in Ireland

Gunter Freundl, M.D., University of Düsseldorf, Germany

Natural Family Planning barrier method use in the fertile phase: Efficacy in relation to sexual behavior — A German prospective long term study

Margaret France, M.S., New Zealand NFP Association, Auckland

Natural Family Planning in New Zealand: A study of continuation rates and characteristics of users

Joe Leigh Simpson, M.D., Baylor College of Medicine, Houston

Pregnancy Outcome in Natural Family Planning Users: Cohort and Case Control Studies Evaluating Safety

Ron Gray, M.D., John Hopkins University, Baltimore, Maryland

Risk of Spontaneous Abortion Associated with the Timing of Conception in NFP Users

Michele Barbato, M.D. CAMEN, Italy

Effects of Timing of Conception on Birth Weight and Preterm Delivery in Natural Family Planning Users

Patricio Mena, M.D. Universidad Nacional, Chile

Pregnancy Complications in Natural Family Planning Users

Myrna Seidman, M.A., M.P.H., Georgetown University

Requirements for NFP Service Delivery

Rebecca Infantado, M.D., Department of Health, Philippines

Mainstreaming NFP into the Department of Health of the Philippines: Opportunities and Challenges

Sandro Giroto, M.D., INER, Verona

Expanding NFP into the Public (state) Sector: Comparison between Public and Private Users' Characteristics

Carlos Huezo, M.D., IPPF/London

**Factors to Address when Periodic Abstinence is Offered by
Multimethod Family Planning Programmes**

Rosemary Kirkman, SAC, UK

**Approaches for Incorporating Ovulation Detection Devices and Home
Kits into Learning NFP - Implications for Service Delivery**

Marcos Arevalo, M.D., Georgetown University

**Expanding the Availability of Natural Family Planning Services and
Fertility Awareness Education: Providers' Perspectives**

Sandro Giroto, M.D.

**The Behavior of Italian Family Physicians Regarding the Health
Problems of Women and Family Planning (both contraception and
NFP)**

Margaret France, M.S.

**The Benefits and Barriers Associated with a National Natural Family
Planning Service: The Zealand Experience**

Margarita Diaz, CEMICAMP, Brazil

**Gender, Sexuality and Communication Issues that Constitute Barriers
to the Use of Natural Family Planning and Fertility Awareness
Methods**

Margaret Marshall, C.N.M., Ed.D., Georgetown University

**Reproductive Health Awareness: An Integrated Approach to
Obtaining an High Quality of Health**

Kimberly Aumack-Yee, M.A., Georgetown University (consultant)

**Body/Self Awareness and Interpersonal Communications:
Fundamental Components of Reproductive Health Awareness**

Zoe Kopp, M.A.

**The Potential Contribution of Sexuality and Gender Awareness to
Reproductive Health**

Cecilia Pyper, M.D., B.S., L.R.C.P., University of Oxford, U.K.

**Reproductive Health Awareness: An important dimension to be
integrated into existing sexual and reproductive health programs**

Anne Wilson, PATH, Washington, D.C.

The Reproductive Health Model: A Qualitative Perspective

Joanne Spicehandler, M.S., International Center for Research on Women,

Washington, D.C.

Issues to Consider in Operationalizing Reproductive Health

Alan Andreasen, Ph.D., Georgetown University

Changing Behavior: A Challenge for Reproductive Health Awareness

Joan Schubert, M.P.H., CARE, Atlanta, Georgia

Breaking the Mold: Expanding Options for Reproductive Health Awareness/ The CARE Experience

Jeanette Cachan, M.A., Georgetown University

Operationalizing Reproductive Health Awareness: Progress to Date

APPENDIX #8
TRAINING EVENTS

APPENDIX #8

TRAINING EVENTS
July 1, 1996 - June 30, 1997

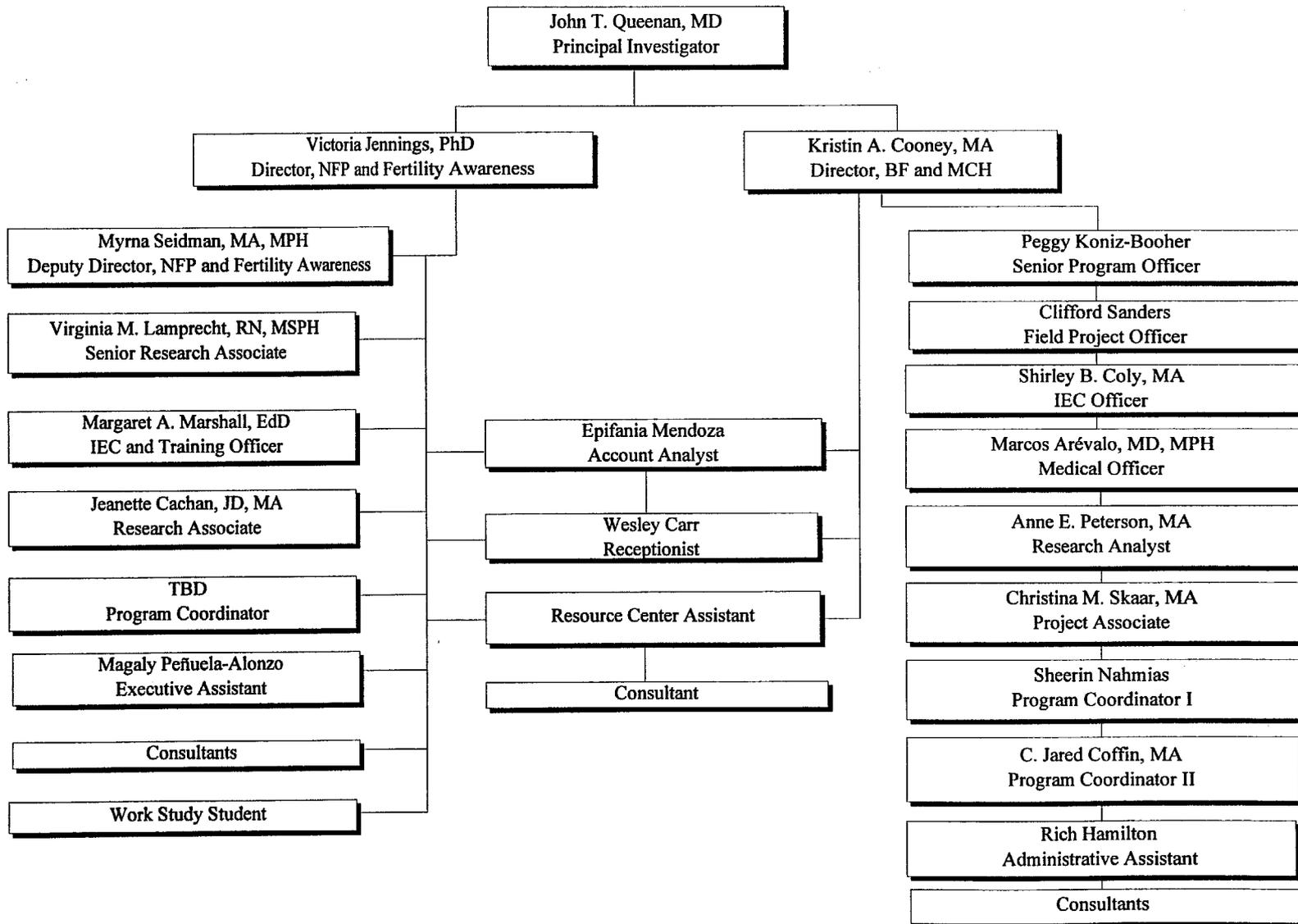
Area/Topic	Country/Date	Beneficiaries	Participating Institutions	Trainers
FA	Mexico August 1996	Youth educators, master trainers	MEXFAM	Duque-Cooke, A
NFP/OR	Philippines August 1996	Local government staff	Population Council, DOH, PFNFP	Seidman, M
NFP	Philippines August-September 1996	National training team	PFNFP, DOH	Marshall, M
NFP	Bolivia November 1996	Master trainers	CRS	Cachan, J Horna, S
NFP TOT	Ukraine December 1996	Physicians, OB/GYN and nurse trainers	Oblast Lviv FP and Reproductive Health Center, Lviv State Medical University	Knight, J Pyper, C
NFP/MIS	Philippines February 1997	PFNFP area coordinators	PFNFP, DOH	Seidman, M

Area/Topic	Country/Date	Beneficiaries	Participating Institutions	Trainers
RHA	Bolivia March 1997	Community health providers	CARE, CIES, SACOA CEPAC, PROMUJER, PROSALUD, CRS	Davenport, A Huasebe, C Marshall, M
NFP	Bolivia April 1997	Community health promoters	CRS	Cachan, J Horna, S Huasebe, C
RHA	Ecuador May 1997	Health providers, educators	CEMOPLAF	Aumack-Yee, K Cachan, J Marshall, M Guijarro, S

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APPENDIX #9
ORGANIZATIONAL CHART

Appendix #9
ORGANIZATION CHART/STAFF LISTING
INSTITUTE FOR REPRODUCTIVE HEALTH AT GEORGETOWN UNIVERSITY SCHOOL OF MEDICINE



Revised 6/3/97

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