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WELLSTART

San Diego Lactation Program

LACTATION MANAGEMENT EDUCATION PROGRAM SESSION REPORT

April 9 - May 4, 1990

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WELLSTART℠

THE SAN DIEGO LACTATION PROGRAM

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I. Introduction and Summary

A Lactation Management Education (LME) Program course was held at the Wellstart facilities in San Diego from April 9 - May 4, 1990. Five health professionals from Colombia, three from Peru, four from Brazil, and two from El Salvador attended this four week Spanish language course. Please see Appendix 1 for a list of all participants with professional disciplines and affiliations noted.

The goal and objectives for the LME Program of which this course is a part are as follows:

Goal

To assist the promotion of breastfeeding in developing countries by improving the knowledge regarding the clinical management of lactation and breastfeeding of current and future perinatal health care providers.

Objectives

(1) To train teams of physicians, nurses and nutritionists from teaching hospitals as lactation specialists. These teams will be prepared to assume responsibility for breastfeeding programs designed to offer both service and teaching and to function as models for possible replication in other teaching hospitals.

(2) To assist these teams in developing a model service and teaching program appropriate to their own setting.

(3) To assist these teams in designing inservice and continuing education activities regarding lactation and breastfeeding for their physician, nurse and nutritionist colleagues.

(4) To assist the teams in selecting or developing appropriate teaching materials for their own programs.

Methods used to meet the goals and objectives for the most part remain unchanged from previous LME courses. Details of specific course activities can be found in Appendices 2 and 3 (Course Schedule and Faculty and Staff List).

As in all LME courses, three basic methods of evaluation were utilized to assess the success level of the course:

(1) To determine if the experience in San Diego modified the quantity and/or quality of the participants' knowledge about breastfeeding, short unannounced pre- and post-tests were given. Results of these tests suggest that participants' knowledge base was increased at the completion of the four-week course. (Average scores rose from 63.9% to 72% correct answers, see Appendix 4).

(2) Individual session critiques were completed by participants for all 37 of the didactic sessions provided during the course. Participants were asked to rate the usefulness, quality and quantity of the presentation, as well as respond to whether the speaker

and/or topic should be included in the future. The tabulated scores reflect a high level of satisfaction with the quality of the material presented as well as with the speakers themselves. The mean score for usefulness was 4.9 and for quality was 4.8 using a scale of 0 to 5, with 5 being the highest possible score.

(3) An evaluation form was given to participants at the end of the entire course to allow them an opportunity to comment on all elements of the course experience. All fourteen of the participants rated the course as excellent (the highest overall rating). The results of these evaluations are summarized by discipline for the group in Appendix 5.

In general, based upon participant comments, the pre/post tests, session critiques and the overall course evaluations, the course appears to have been very well accepted and a valuable experience for all who attended.

II. Comments on Specific Program Components

Recruitment/Selection

All four of the countries represented in this course are already participating in the Wellstart LME Program. Teams selected for participation in this particular course were specifically chosen to complement and supplement existing teams or, in the case of Brazil, an existing individual. In most cases, Wellstart was pleased that the criteria for selection had been followed. The resulting participants were appropriate in terms of disciplines, experience, responsibility and commitment. Though the team from El Salvador did not fit Wellstart's usual profile (a team from a teaching hospital or ministry of health), they were able to make a unique and important contribution to the course and should complement breastfeeding promotion and protection efforts already underway in El Salvador.

Because the course was provided in Spanish, the issue of English language capability did not present itself. This Spanish language course was selected as more appropriate for the Brazilian team because of the similarity of Spanish to Portuguese. The fact that the Brazilian team was most comfortable in their native language did not seem to detract in any major way from their ability to comprehend course content and interact with the rest of the course participants or faculty and staff.

Education/Motivation

The course was specially designed to assist participant teams in meeting their specific needs for technical information, clinical skills, and program planning and evaluation expertise. Specially selected guest faculty (Appendices 2 and 3) provided a wide variety of state of the art information on maternal and infant nutrition, lactation management, breastfeeding promotion, appropriate weaning practices and related topics. As many bilingual adjunct faculty were utilized as possible to maximize the number of topics presented directly in Spanish.

In addition to the formal classroom, clinical and field trip activities, the LME Program also includes several extracurricular experiences which are important components of the team

development and educational processes. Such experiences not only provide the group with a bit of relaxation and fun, but also serve to provide orientation to American cultural traditions and values. The camaraderie formed within and among teams as the result of these experiences is one reason for the success and sustainability of the teams' programs as they return to their countries using team synergy and motivational momentum to effect and maintain change.

Material Support

The formal course syllabus (Spanish language version) was updated and refined for this course and reading lists were updated. An increasing number of written materials were translated to Spanish and formatted for inclusion in the course syllabus. Course participants found the syllabus helpful and easy to use.

In addition to the syllabus, each participant received a set of text books and each team received a reprint library of approximately 900 English language reprints. Unfortunately, very few relevant reprint articles are available in Spanish. It is useful to provide the English materials because while few of the Latin participants speak English, many have a reading ability. Wellstart continues to search for and collect relevant Spanish language articles. For this course, Wellstart was able to provide a set of 40 Spanish language reprint articles for each team. Reference lists by subject for all reprint articles are included in the course syllabus.

LME Program funds also allow each participating team to purchase relevant teaching materials such as slides, text books, video tapes, teaching dolls, and breast pumps for use in-country. As many items as possible are provided in Spanish. A specially compiled list of teaching material resources available in Spanish was provided to each participant as part of the syllabus. Participants were also provided with information on how to create good teaching slides and handouts, and suggestions on how to organize reprints, slides and related materials. Participants were urged to review and utilize this information as they work on establishing and maintaining their own collections of teaching resources.

Program Planning

An essential component of the LME Program is the preparation and presentation of each team's plans for implementation of programs upon returning home. The teams formally presented their plans (Appendices 6-9) to an audience of Program faculty, staff and invited guests during the last day of the course. As an important next step, they were urged to share their plans with their supervisors, the USAID Missions, the Ministries of Health and others, as appropriate. Though three of the four plans were written in Spanish (the Peruvian plan was written in English), brief summaries (in English) of the plans presented by all four teams are included below.

COLOMBIA
Research, Training and Support Program, University Hospital of San Ignacio, Javeriana University, Bogotá

Once their plan is presented and approved by the directors of the hospital and university, this multidisciplinary team will implement their plan to evaluate the effectiveness of a

breastfeeding education program for patients at San Ignacio Hospital. To do this, they will first assess the existing situation with regard to breastfeeding at the hospital using specially designed survey forms. They will then use the results of this analysis to determine the specific components of a successful patient education program for their clinical population. Then they will compare the results of questionnaires given to a study and control group of 100 women each. The control group will have received no special program. The study group will have received the newly designed program of prenatal and postnatal education.

The final stage of their plan involves the development of a lactation clinic designed to provide clinical services for mothers delivering at the hospital and to be used in clinical teaching programs for hospital staff, as well as undergraduate and postgraduate students from the faculties of medicine, nursing and nutrition. Clinical services would thus include: assistance for mothers with breastfeeding problems; pre and postnatal education for mothers; nutrition counseling; professional education and training; and ongoing research efforts.

Comments:

This team from Javeriana University will make an excellent contribution to the resource of expertise being developed in Colombia. The process of educating key educators and leaders in Colombia, which began during the previous course with the entry of ten Colombian health professionals into the LME Program, has continued with the addition of this excellent team from a major, well respected teaching hospital. Because this team did not have the advantage of attending the LME course with the other ten Colombians, it is particularly important that they coordinate their activities and pool their resources, especially with the other team from Bogotá, to maximize impact. This coordination function would most logically be handled by USAID Bogotá or by the Fulbright Commission.

EL SALVADOR
Community Program to Promote Breastfeeding, Nutrition and Weaning, Asociación Salvadoreña Pro Salud Rural (ASAPROSAR)

The team from ASAPROSAR has developed a plan designed to transfer knowledge, materials and skills obtained through Wellstart to fellow ASAPROSAR staff and to mothers in the local community. Their project can be described in six steps:

1) A baseline study of 50 mothers with children less than one year of age will be undertaken. A questionnaire (draft attached) will be administered during a home visit.

2) An analysis of the baseline data will be done which will enable the team to assess deficiencies in knowledge, attitudes and practices. The educational program they will design will be based on the need identified by this analysis.

3) Teaching of technical workers and volunteers in the community (existing ASAPROSAR workers) will take place. Courses of study will be four weeks with classes held for eight hours once a week.

4) The technical and volunteer workers will then pass on their newly acquired knowledge and skills to the mothers in the community.

5) Monthly evaluation/monitoring of results will occur for three months.

6) ASAPROSAR hopes to be able to apply this project in other communities throughout El Salvador.

Comments:

Though the ASAPROSAR team is not Wellstart's typical teaching hospital-based team, it soon became clear that they had much to offer the rest of the participating teams in terms of community based, practical experience and perspectives. ASAPROSAR's successes in reaching the community and creating an impact at the primary care level are impressive. The experience that ASAPROSAR has in spreading knowledge and skills in other areas relating to health and well being can be readily adapted to this subject matter, using existing networks of community workers and mothers. This team has a lot to offer its colleagues from El Salvador and it is hoped that they will be able to work with previously educated teams, particularly the team from Santa Ana and the most recent participants from PROALMA, on developing effective breastfeeding promotion and protection programs for the country.

PERU

National Center for Training and Research in Lactation Management: Training Multidisciplinary Hospital Personnel in Lactation Management to Promote Exclusive Breastfeeding, Universidad Peruana Cayetano Heredia, Lima, Peru

The current Peruvian team plan builds on a demonstration research project entitled, "A Controlled Trial to Extend the Duration of Exclusive Breastfeeding Among Low-Income Mothers in Lima, Peru," which began in September 1988 and will be completed by April 1990. This is a cooperative project between Johns Hopkins University and Cayetano Heredia University, funded by the Population Council from USAID/W Office of Population, Division of Research. The project was aimed at demonstrating the effect of a hospital-based intervention on improving mother and infant practices in the first three months of life, with the specific goal of prolonging exclusive breastfeeding. The project was comprised of three phases: 1) baseline data collection, 2) development and implementation of the intervention that included hospital personnel in-service training and educational material development, and 3) evaluation of the intervention. A five person multidisciplinary team from Cayetano Heredia began participation in the Wellstart Program in January 1989.

On the basis of the achievements of that project, the establishment of a National Center for Training and Research in Lactation Management is being proposed. The goal of the Center is to increase the duration of exclusive breastfeeding by training health professionals in this subject area on a wider scale.

The Center will train multidisciplinary teams of health personnel from hospitals and peripheral health facilities of the Ministry of Health and the Peruvian Social Security Institute to become trainers and leaders in lactation management, promotion of exclusive breastfeeding, and proper infant feeding supplementation. These multidisciplinary teams will attend a 2-week initial intensive training course which is based on the information, materials, and methods obtained and developed during the demonstration research project mentioned above. Following this training, Center staff will provide the participants with technical assistance and materials to organize and implement courses for health personnel in their own hospitals and peripheral services.

Four courses will be offered during the first year with a maximum of four teams in each course. It is thus projected that 16 teams from an equal number of hospitals will be trained during the first year and that 40 teams will be trained over the next two years. Each team will reach an estimated 150 to 250 health professionals and para-professionals through replication of the Center course in their home hospitals and peripheral services, thus reaching a total of 8,400 to 14,000 health personnel during the three year period.

The Center will be staffed initially by a multidisciplinary team of professionals, including an MCH public health researcher/program administrator, four pediatricians, two obstetricians, a pediatric nurse faculty member, and two nurse specialists in neonatology and child growth and development. Most of the staff are now participating in the Wellstart Program.

Comments:

As with any team that is planning a national or regional center for lactation management education and training, the current team from Cayetano Heredia (including the Advanced Study Fellow, Dr. Nelly Baiocchi, from this same institution) is undertaking a tremendously complex and challenging project. The complexities and difficulties inherent in such a project should not be underestimated and expectations in terms of time, energy and funds required to develop such a center must match reality.

Having Dr. Baiocchi in San Diego during the same time as the current team from Cayetano Heredia was extremely beneficial. A sense of continuity and connection to previous efforts as described above could thus be achieved. The program planning activities that occurred during this course, then, were an effort to build upon previous planning activities and project experiences. Thanks to the efforts put forth during this course, the center plan now has a more detailed strategy for the actual training program and for its evaluation.

The next steps will be to further refine the plan into a final proposal for funding and to obtain funding sufficient to implement the plan. Communication lines already in existence between and among Wellstart, the participants (past and present), the administration at Cayetano Heredia, the USAID Mission in Lima, the Population Council, and other potential funding and support agencies should remain wide open. Much ground work has been done; now the challenge is to maintain the level of motivation and activity and to work together to make this excellent plan a reality.

BRAZIL

Establishment of a Lactation Training Center at the Hospital Guilherme Alvaro de Santos, Santos, Brazil

This center is being developed to train multidisciplinary teams at the university level from the public health service in lactation management as part of a project being funded by the World Health Organization. Santos was specially selected as the site for this center because of a variety of reasons, including the existence of a strong breastfeeding program and a solid base of supportive and knowledgeable personnel, including the current Wellstart-educated team.

Five courses in lactation management are scheduled to be held at the center by the end of 1991. Courses will be two to three weeks in length, for teams from three to five institutions each course. The courses will include time for participants to develop action plans for changing institutional practices and policies so that they are more supportive of exclusive breastfeeding. Also, during the course, participants will be able to select teaching materials for use in their own programs. Center staff (the Wellstart team) will be available on an as-needed basis to provide technical assistance, including site visits.

The strategy for evaluation of the project includes a comparison of baseline hospital routines and services with changes six and twelve months post course participation. The project will solicit information on activities every three months. The courses themselves will also be evaluated in terms of content and methods, using participant critique forms.

Comments:

This team has a tremendous amount of experience in clinical lactation management and professional teaching. Funding is now in place to develop this institution as a formal resource of technical expertise and training for much of Brazil. The challenge will be to develop a sustainable and protected entity, an actual center, which can be widely and effectively utilized. The motivation and dedication of this team, obvious even through the slight language barrier, should be nurtured and expanded upon so that initial successes in training during 1991 can be increased. As time passes and experience grows, expansion of center activity could include additional efforts in the clinical, educational, research and technical assistance areas for a steadily expanding catchment area.

It is hoped that the English and Spanish materials and resources shared with this team will be useful as they develop their center and its support materials. Because this center has the potential of reaching other Portuguese speaking health professionals even outside of Brazil, additional efforts should be made to insure that key materials are translated and adapted for use in that language.

Because of the complex and ambitious nature of center establishment, it is recommended that a follow-up continuing education and support visit be made by Wellstart faculty within a shorter period of time than usual, perhaps during a visit planned to South America in October 1990. It is also highly recommended that, in addition to the communication linkages and support network already in existence between the team and the World Health Organization, the team keep in contact with and elicit the support of key staff at the USAID Missions in-country. This is a critical step in insuring that the center be a sustained and utilized resource for health professional training and support.

III. The Advanced Study Fellowship Project

Two former LME Program participants, Dr. Horacio Reyes, Pediatrician from the Hospital General in Mexico City and Dr. Nelly Baiocchi, Pediatrician and Nutritionist from the Universidad Peruana Cayetano Heredia (UPCH), were invited to participate in a two month Advanced Study Fellowship. Unfortunately Dr. Reyes was unable to participate due to personal reasons. Dr. Baiocchi was, however, able to participate in the Fellowship from March 26 - May 22. The first two weeks of her Fellowship experience included clinical study and library review at the Wellstart facilities and visits to the San Jose Mothers' Milk Bank, San Jose, CA; the Lactation Program in Denver, CO; the Best Beginnings Program at the University of Kansas Medical Center, Kansas City, Kansas; and the Children's Nutrition Research Center in Houston, TX. During the LME course, Dr. Baiocchi taught several selected topics, and acted as translator, discussion facilitator, and team leader for the team from Peru. Dr. Baiocchi's leadership skills and technical expertise were utilized and enhanced through this process of actually assisting the Wellstart faculty and staff in implementing the LME course. Dr. Baiocchi also found time to develop a preliminary proposal for a research study entitled "Bacteriological Determination and Clinical Outcome of Feeding Stored Breast Milk Stored at Room Temperature". See Appendix 10.

Immediately following the LME course, Dr. Baiocchi attended a lactation research seminar and breastfeeding interest group meeting (The Milk Club) held in conjunction with the annual academic pediatric meetings (APS, SPR, APA) held in Anaheim, California. She also participated in the meeting at Wellstart of a national multidisciplinary committee which is

developing a standardized curriculum for lactation management for maternal and child health professionals throughout the United States.

Dr. Baiocchi and her colleagues at UPCH have already carried out substantial lactation management education activities in Peru as a result of their participation in the LME Program. She continued this process by working independently, with the current team members, and with Wellstart faculty and staff during her Fellowship to refine and expand their plan for the development of a lactation center at UPCH to sustain and expand their successes.

IV. Recommendations for the Future

All LME Program participants in this course have the potential to become powerful resources for national breastfeeding promotion and protection efforts. The professional knowledge and skills, the materials and motivation, and the sense of teamwork acquired in San Diego can create a strong basis for implementing the short and long-range goals they have articulated.

The potential for national working groups to be formed in three of the four countries (including past Program participants) now exists. The team from Brazil is really the first true team from that country and for that and other reasons their relationship with the past Brazilian participants is a bit different.

The participants should be encouraged to continue to function as teams, and should be viewed as key resources for all further breastfeeding activities in-country. The process of networking and communication which began between and among the participants in San Diego should be expanded and institutionalized. This is especially feasible and important because of their common language and relatively close proximity to each other. Participants should be encouraged to continue drawing on each other's expertise and experience for teaching and consulting work once they return home and as they implement their planned activities.

Continuing communication and follow-up are important components of the Wellstart Program. It is important that follow-up visits by Wellstart faculty be well coordinated with the teams' plans for program implementation so that maximum advantage of such visits can be achieved. Wellstart will remain in contact with all participants through the dissemination of teaching materials, the Spanish version of the LME Program Newsletter and the Reprint of the Month project. All participants, related USAID Missions and other pertinent agencies in-country are urged to continue to utilize Wellstart as a resource and keep Wellstart informed of activities, accomplishments and areas of need.

APPENDIX 1

Participants

WELLSTART
Lactation Management Education Program
April 9 - May 4, 1990

PARTICIPANTS

Hospital San Ignacio
Pontifica Universidad Javeriana
Bogotá, Colombia

Francisco Revollo Pardo
Obstetra [Obstetrician]
Profesor y Jefe de la Unidad de Obstetricia [Chief of Obstetrics Department]

Rosaura Cortes
Enfermera, Profesora [Nurse, Professor]
Departamentos de Salud Mental y Materno Infantil [Department of Mental Health and Maternal and Child Health]

Edy Salazar
Enfermera, Profesora [Nurse, Professor]
Facultad de Enfermería [MCH Division, School of Nursing]

Esperanza Manjarrez de Rojas
Enfermera, Jefe de Partos [Head Nurse, Labor and Delivery]

Clemencia Forero
Nutricionista [Nutritionist]

Asociación Salvadorena Prosalud Rural - ASAPROSAR
[The Salvadoran Association for Rural Health]
Santa Ana, El Salvador

Maxima Rosa Palacios
Pediatra [Pediatrician]

Mirna Elizabeth Olmedo de España
Enfermera [Nurse]

Hospital Guilherme Álvaro, Santos
São Paulo, Brazil

Keiko M. Teruya
Pediatra [Pediatrician]

Sergio Kabach
Obstetra, Jefe de Clinica de Obstetricia [Obstetrician, Head of Obstetrics Clinic]

Sueli Domingos
Enfermera [Nurse]

Tereza S. Toma
Pediatra, Co-Directora [Pediatrician, Researcher, Co-Director]
Centro de Entrenamiento en Lactancia Materna [Lactation Training Center]

Cayetano Heredia Hospital
Universidad Peruana Cayetano Heredia
Lima, Peru

Sarah Vega
Pediatra, Servicio de Neonatología [Neonatologist]
Instituto Peruano de Seguridad Social [Peruvian Social Security Institute]

Adriana Salas
Enfermera, Jefe del Servicio de Recien Nacidos [Head Nurse of Newborn Nursery]

Dr. Carmen Gonzalez Falla
Obstetra [Obstetrician]

Ex-Alumna de Wellstart, Becada Para Estudios Avanzados
[Wellstart Alumnus Participating in Advanced Study Fellowship]

Nelly Baiocchi
Pediatra/Nutricionista
[Pediatrician/Nutritionist]
Cayetano Heredia Hospital
Universidad Peruana Cayetano Heredia
Lima, Peru

APPENDIX 2

Course Schedule

WELLSTART
Lactation Management Education Program
April 9 - May 4, 1990

SCHEDULE

Week I

4/6/90

Monday April 9	Tuesday April 10	Wednesday April 11	Thursday April 12	Friday April 13
8:00 - 8:30 Escort to Wellstart and Tour of Facilities 8:30 - 11:00 General Orientation to Program 11:00 - 12:30 Team Presentations	8:00 - 12:00 Breastfeeding and Child Survival -A. Naylor	8:30 - 10:00 Anatomy and Physiology -N. Baiocchi 10:15 - 12:00 Management of Successful Breastfeeding -R. Wester -E. Creer	8:00 - 10:15 Infant Related Issues Impacting Successful Lactation and Breastfeeding -R. Wester -E. Creer 10:30 - 12:30 Maternal Related Issues Impacting Successful Lactation and Breastfeeding -R. Wester -E. Creer	8:30 - 9:45 Hospital Rounds (Classroom 8:15) Domingos Toma Manjarrez Salas Revollo Palacios 10:00 - 1:00 Clinical Experiences/ Audio Visual Review *Lactation Clinic* *(Clinic House 9:45)* Teruya Olmedo Gonzalez Kabach Cortes Vega *Nutrition Counseling* *(Vicky's Office 10:00)* Salazar Forero Baiocchi *Breast Exam Review* *(Classroom 10:00)* Revollo Salas Palacios *Audiovisual Material Review* *(Library 10:00)* Domingos Toma Manjarrez
12:30 - 1:30 Lunch *(w/staff)*	12:00 - 1:00 Lunch	12:00 - 1:00 Lunch	12:30 - 1:30 Lunch	1:00 - 2:00 Lunch
1:30 - 5:00 Team Presentations	1:00 - 2:30 Breastfeeding and Child Survival -A. Naylor 2:45 - 3:45 Film: "Amazing Newborn" 4:00 - 5:00 Psychosocial and Cultural Aspects of Infancy: Implications for Breastfeeding -V. Valdés	1:00 - 2:30 Maternal Nutrition -V. Newman 2:45 - 4:30 Infant Nutrition and Weaning -V. Newman	1:30 - 2:30 Breast Examination -V. Lops 2:45 - 5:00 Slow Gain/Insufficient Milk Syndrome -V. Valdés 5:00 - 5:30 Orientation to Clinical Experiences -R. Wester -E. Creer	2:00 - 4:00 Growth and Health in Developing Countries -R. Martorell 4:15 - 5:00 Lactation Programs -A. Naylor

Monday April 16	Tuesday April 17	Wednesday April 18	Thursday April 19	Friday April 20
8:30 - 9:45 Hospital Rounds (Classroom 8:15) Teruya Salazar Gonzalez Forero Cortes Olmedo 10:00 - 1:00 **Clinical Experiences/ Audio Visual Review** *Lactation Clinic* *(Clinic House 9:45)* Domingos Salas Revollo Baiocchi Palacios Toma *Nutrition Counseling* *(Vicky's Office 10:00)* Manjarrez Vega Kabach *Breast Exam Review* *(Classroom 10:00)* Teruya Cortes Gonzalez Olmedo *Audiovisual Material Review* *(Library 10:00)* Salazar Forero	8:30 - 12:00 Program Evaluation -A. Brownlee	8:30 - 9:45 Hospital Rounds (Classroom 8:15) Baiocchi Manjarrez Vega Kabach Domingos Toma 10:00 - 1:00 **Clinical Experiences/ Audiovisual Review** *Lactation Clinic* *(Clinic House 9:45)* Salazar Teruya Forero Gonzalez Manjarrez Cortes *Nutrition Counseling* *(Vicky's Office 10:00)* Olmedo Domingos Revollo *Breast Exam Review* *(Classroom 10:00)* Kabach Toma *Audiovisual Material Review* *(Library 10:00)* Palacios Salas Vega	*8:30 - 9:30* 10:00 - 12:30 **Clinical Experiences/ Audiovisual Review** *Lactation Clinic* *(Clinic House 9:45)* Olmedo Revollo Vega Domingos Kabach Baiocchi *Nutrition Counseling* *(Vicky's Office 10:00)* Salazar Domingos Forero *Breast Exam Review* *(Classroom 10:00)* Manjarrez Salazar Forero *Audiovisual Material Review* *(Library 10:00)* Teruya Gonzalez Cortes	8:30 - 10:00 Growth Monitoring -M. Griffiths 10:15 - 12:00 Breastfeeding and Diarrheal Disease Control -K. Brown
1:00 - 2:00 Lunch	12:00 - 1:00 Lunch	1:00 - 2:00 Lunch		12:00 - 1:00 Lunch
2:00 - 3:30 Infant Oral-Motor Assessment and Management -K. Bouma 3:45 - 5:30 Induced and Relactation -E. Jones -V. Valdés	1:00 - 1:45 Orientation to Program Planning -Staff 2:00 - 4:00 Human Milk Banking -M.T. Asquith 4:15 - 5:00 Discussion and Review	2:00 - 4:00 Breastfeeding, Fertility, and Child Spacing -M. Labbok 4:15 - 6:30 **Program Planning Workshops** -A. Brownlee -N. Baiocchi 4:15 - 5:15 El Salvador 5:30 - 6:30 Brazil	12:30 - 5:00 Field Trip to ISSSTECALI Hospital, Tijuana, Mexico -E. Jones -G. Chong	1:00 - 3:00 Curriculum Design -E. Creer 3:15 - 5:30 **Program Planning Workshops** -A. Brownlee -N. Baiocchi 3:15 - 4:15 Colombia 4:30 - 5:30 Peru

Monday April 23	Tuesday April 24	Wednesday April 25	Thursday April 26	Friday April 27
8:30 - 9:45 Hospital Rounds (Classroom 8:15) Revollo Cortes Palacios Olmedo Teruya Gonzalez 10:00 - 1:00 **Clinical Experiences/ Audiovisual Review** *Lactation Clinic* *(Clinic House 9:45)* Salazar Salas Forero Toma Palacios Manjarrez *Nutrition Counseling* *(Vicky's Office 10:00)* Teruya Cortes Gonzalez *Audiovisual Material Review* *(Classroom 10:00)* Olmedo Revollo Kabach *Breast Exam Review* *(Classroom 10:00)* Vega Domingos	8:00 - 10:00 Human Milk for the Premature Infant -R. Schanler 10:15 - 12:15 Lactation Management for Mothers of Preterm Infants -N. Biondillo	8:30 - 9:45 Hospital Rounds (Classroom 8:15) Salas Vega Baiocchi Salazar Kabach Forero 10:00 - 1:00 **Clinical Experiences/ Audiovisual Review** *Lactation Clinic* *(Clinic House 9:45)* Toma Teruya Manjarrez Gonzalez Baiocchi Olmedo *Nutrition Counseling* *(Vicky's Office 10:00)* Vega Kabach Salazar *Independent Study* Cortes Forero Domingos Revollo Palacios Salas	10:00 - 1:00 **Clinical Experiences/ Audiovisual Review** *Lactation Clinic* *(Clinic House 9:45)* Cortes Salazar Kabach Forero Vega Toma *Nutrition Counseling* *(Vicky's Office 10:00)* Revollo Domingos Palacios *Independent Study* Salas Teruya Gonzalez Olmedo Manjarrez	7:00 Leave San Diego 8:00 - 12:00 Comparative Lactation Field Trip to the San Diego Wild Animal Park -L. Killmar
1:00 - 2:00 Lunch	12:15 - 1:15 Lunch	12:00 - 1:00 Lunch		12:00 - 1:00 Lunch
2:00 - 3:30 Drugs and Contaminants -P. Anderson 3:45 - 5:30 Contraindications -A. Garza 5:45 - 7:00 Lactation Programs -A. Naylor	1:15 - 1:30 Film: "Mother Kangaroo - A Light of Hope" 1:30 - 3:00 Kangaroo Care -V. Valdés 3:15 - 4:30 Film: "Feeding Low Birth Weight Babies" 4:30 - 5:00 Discussion and Review	1:00 - 5:45 **Program Planning Workshops** -A. Brownlee -N. Baiocchi 1:00 - 2:00 Peru 2:15 - 3:15 Colombia 3:30 - 4:30 Brazil 4:45 - 5:45 El Salvador **Team meetings with Wellstart Staff** 1:00 - 2:00 Colombia 2:15 - 3:15 Peru 4:45 - 5:45 Brazil	1:00 - 3:30 (Lunch) Cultural Traditions and Beliefs Surrounding Breastfeeding -Staff 3:15 - 5:00 Comparative Lactation -A. Naylor	1:00 - 5:00 Intercultural Orientation -Staff

Monday April 30	Tuesday May 1	Wednesday May 2	Thursday May 3	Friday May 4
10:00 - 1:00 **Clinical Experiences/ Independent Study** *Lactation Clinic* *(Clinic House 9:45)* Domingos Salas Revollo Baiocchi Palacios Manjarrez *Nutrition Counseling* *(Vicky's Office 10:45)* Forero Gonzalez Teruya *Independent Study* Cortes Olmedo Kabach Vega Salazar Toma	10:00 - 1:00 **Clinical Experiences/ Independent Study** *Lactation Clinic* *(Clinic House 9:45)* Teruya Olmedo Gonzalez Kabach Cortes Vega *Nutrition Counseling* *(Vicky's Office 10:45)* Salas Manjarrez Toma *Independent Study* Salazar Forero Domingos Revollo Palacios	8:30 - 9:30 Discussion -A. Naylor 10:00 - 1:00 Case Management Review Session -Staff	8:00 - 10:00 Consultant's Report Seminar (Review of 20 Questions Assignment) -Staff 10:00 - 1:00 **Clinical Experiences/ Independent Study** *Lactation Clinic* *(Clinic House 9:45)* Salazar Palacios Forero Salas Domingos Revollo *Nutrition Counseling* *(Vicky's Office 10:45)* Cortes Olmedo *Independent Study* Teruya Vega Gonzalez Toma Kabach Manjarrez	10:00 - 1:00 Team Program Plan Presentations
1:00 - 2:00 Lunch	1:00 - 2:00 Lunch	1:00 - 2:00 Lunch	1:00 - 1:30 Break	1:00 - 2:00 Lunch
2:00 - 3:30 Jaundice -A. Garza 3:45 - 4:45 Teaching Residents and Students -Staff 5:00 - 7:30 Teaching Resources Review and Selection (Brazil and Peru)	2:00 - 4:00 Working Mothers -R. Wester -V. Valdés 4:30 - 7:00 Teaching Resources Review and Selection (Colombia and El Salvador)	2:00 - 3:45 Pumps and Feeding Aids -L. Scott -R. Wester 4:00 - 5:45 Professional Roles and Responsibilities on the Multidisciplinary Team -Staff	1:30 - 3:30 (Lunch) Formula Marketing and the WHO Code -V. Valdés -J. Schooley -A. Naylor	2:00 - 4:00 Administrative Matters 7:00 - 10:00 Closing Ceremonies and Farewell Banquet

APPENDIX 3

Faculty and Staff List

WELLSTART
Lactation Management Education Program
April 9 - May 4, 1990

FACULTY AND STAFF

Core Faculty

Elizabeth Creer, FNP, MPH
Family Nurse Practitioner
Wellstart
San Diego, California

Álvaro Garza, MD, MPH
Assistant Director, Research and Evaluation
Wellstart
San Diego, California

Audrey Naylor, MD, DrPH, FAAP
Co-Director
Wellstart
San Diego, California

Vicky Newman, RD, MS
Nutritionist
Wellstart
San Diego, California

Janine Schooley, MPH
Educational Program Manager
Wellstart
San Diego, California

Lois Scott, RN
Nurse Specialist
Wellstart
San Diego, California

Ruth Wester, RN, BA, CPNP
Co-Director
Wellstart
San Diego, California

Adjunct Faculty

Philip Anderson, PharmD
Director, Drug Information Service
UCSD Medical Center
San Diego, California

Guillermo Arroyave, PhD
Nutrition Consultant
Retired Nutrition Program Director, INCAP
San Diego, California

Maria Teresa Asquith
Director and Coordinator
Mother's Milk Bank
San Jose, California

Nancy Biondillo, RN
Lactation Support Program
Texas Children's Hospital
Houston, Texas

Katherine Bouma, OT
Occupational Therapist
UCSD Medical Center
San Diego, California

Kenneth Brown, MD
Department of International Nutrition
University of California
Davis, California

Ann Brownlee, PhD
Medical Sociologist and
International Health Consultant
Escondido, California

Gabriel Chong, MD
Director
Hospital ISSSTECALI
Tijuana, Mexico

Marcia Griffiths, PhD
President
Manoff Group, Inc.
Washington, DC

Elizabeth Jones, RD, MPH
Pediatric Nutrition Consultant
San Diego, California

Larry Killmar
Curator of Mammals
San Diego Wild Animal Park
Escondido, California

Miriam Labbok, MD, MPH
Associate Professor and Director,
Breastfeeding and Maternal and
Child Health
Institute for International Studies in Natural
Family Planning (IISNFP)
Department of Obstetrics and Gynecology
Georgetown University Medical Center
Washington, DC

Vanda Lops, CNM
Assistant Clinical Professor, Department of
Reproductive Medicine, and
Director, Nurse Midwifery Service
UCSD Medical Center
San Diego, California

Reynaldo Martorell, PhD
Food Research Institute
Stanford University
Stanford, California

Richard Schanler, MD
Associate Professor of Pediatrics, Baylor
College of Medicine, and Investigator,
Children's Nutrition Research Center
Houston, Texas

Veronica Valdés, MD
Pediatrician
Catholic University of Chile
Santiago, Chile

Administrative Staff

Cynthia Collins
Staff Assistant

Kay Coulter
Accounting Assistant

Lisa Daigle
Accountant

Trudy Dixon
Volunteer Aide

Kathleen Finn, MA
Administrative Services Director

Patricia Gage, MA, RD
Staff Assistant

Monica King
Educational Program Assistant

Darlynn Konold
Billing Services Coordinator

Bruny Lopez
Receptionist

Carol Parker
Word Processor

Deborah Ress
Secretary

Susan Walker
Administrative Assistant

APPENDIX 4

Pre and Post Test Scores Summary

WELLSTART
Lactation Management Education Program
April 9 - May 4, 1990

PRE- AND POST-TEST SUMMARY

Team	Disc	Name	PRE-TEST # Incorrect	PRE-TEST # Omitted	PRE-TEST # Correct	PRE-TEST % Correct	POST-TEST # Incorrect	POST-TEST # Omitted	POST-TEST # Correct	POST-TEST % Correct	% Improvement Between Pre- & Post-Test
C	N	Rosaura Cortés	5	2	8	53	3	0	12	80	+27%
B	N	Sueli Souza Domingos	6	0	9	60	6	0	9	60	0%
C	Nutr	Clemencia Forero de Galvis	3	0	12	80	3	0	12	80	0%
P	Ob	Carmen V. Gonzalez F.	6	0	9	60	5	0	10	67	+7%
B	Ob	Sergio Kabbach	3	0	12	80	6	0	9	60	-20%
C	N	Esperanza Manjarrés	4	1	10	67	3	0	12	80	+13%
E	N	Mirna Elizabeth Olmedo de España	5	1	9	60	5	0	10	67	+7%
E	Ped	Máxima P. de Rodríguez	9	0	6	40	5	0	10	67	+27%
C	Ob	Francisco Revollo Pardo	5	2	8	53	5	0	10	67	+14%
P	N	Adriana Salas Arruz	8	0	7	47	6	0	9	60	+13%
C	N	Edy Salazar	2	0	13	87	2	0	13	87	0%
B	Ped	Keiko M. Teruya	6	0	9	60	4	0	11	73	+13%
B	Ped	Tereza Toma	6	0	9	60	4	0	11	73	+13%
P	Ped	Sara María Vega Sanches	2	0	13	87	2	0	13	87	0%
		Group Averages	5.0	0.4	9.6	63.9	4.2	0	10.8	72.0	+8.1%

B: Hospital Guilherme Álvaro, Santos, São Paulo, Brazil
C: Hospital San Ignacio, Pontifica Universidad Javeriana, Bogotá, Colombia
E: Asociación Salvadorena Prosalud Rural (ASAPROSAR), Santa Ana, El Salvador
P: Cayetano Heredia Hospital, Universidad Peruana, Cayetano Heredia, Lima, Peru

N = Nurse
Nutr = Nutritionist
Ob = Obstetrician
Ped = Pediatrician

Percentage Comparisons by Team and Discipline

TEAM→ DISCIPLINE↓	Pre-Test B	Pre-Test C	Pre-Test E	Pre-Test P	Pre-Test DISC. AVG.	Post-Test B	Post-Test C	Post-Test E	Post-Test P	Post-Test DISC. AVG.	% Improvement Between Pre- and Post-Test B	% Improvement Between Pre- and Post-Test C	% Improvement Between Pre- and Post-Test E	% Improvement Between Pre- and Post-Test P	% Improvement Between Pre- and Post-Test DISC. AVG.
N	60	53 67 87	60	47	62.3	60	80 80 87	67	60	72.3	0	27 13 0	7	13	10.0
Nutr		80			80.0		80			80.0		0			0.0
Ped	60 60		40	87	61.8	73 73		67	87	75.0	13 13		27	0	13.3
Ob	80	53		60	64.3	60	67		67	64.7	-20	14		7	0.3
Total Phys. Average by Team	66.7	53.0	40.0	73.5		68.7	67.0	67.0	77.0		2.0	14.0	27.0	3.5	
Total Team Average	65.0	68.0	50.0	64.7		66.5	78.8	67.0	71.3		1.5	10.8	17.0	66.6	

APPENDIX 5

Course Evaluation Summary

WELLSTART
Lactation Management Education Program
April 9 - May 4, 1990

SUMMARY OF OVERALL COURSE EVALUATION

SCALES USED FOR OVERALL COURSE EVALUATION RATINGS

1 - Usefulness	5 = very useful 0 = not useful	4 - Hotel Adequacy	5 = very adequate 0 = not adequate
2 - Ease of Reading	5 = easy to read 0 = hard to read	5 - Increase in Knowledge	5 = very much 0 = not at all
3 - Understandability	5 = very understandable 0 = not understandable		

A total of fourteen evaluations were completed on the final day of the course with the following breakdown of disciplines indicated: six nurses; one nutritionist; four pediatricians; and three obstetricians.

		Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
CLINICAL EXPERIENCES									
1. Hospital Rounds									
Usefulness[1]		4.2	5.0	2.5	3.7	3.1		3.6	
# of sessions	-not enough	1		1			1		2
	-just right	4		3	2		5		9
	-too many	1	1		1		1		3
	-not answered								
# of patients	-not enough	4		3	2		5		9
	-just right	2			1		1		3
	-too many								
	-not answered		1	1			1		2
Ruth Wester		5.0	--	4.7	4.5	4.6		4.7	
Liz Creer		4.3	5.0	4.3	4.0	4.2		4.3	
Álvaro Garza		4.6	--	4.0	5.0	4.4		4.5	
Verónica Valdés		4.5	--	4.3	5.0	4.5		4.5	

		Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
2. Lactation Clinic									
Usefulness[1]		4.8	5.0	4.5	4.5	4.5		4.7	
# of sessions	-not enough			1			1		1
	-just right	4	1	2	3		5		10
	-too many	2		1			1		3
	-not answered								
# of patients	-not enough	1		2	2		4		5
	-just right	5		1			1		6
	-too many								
	-not answered		1	1	1		1		3
Ruth Wester		5.0	--	4.5	5.0	4.7		4.7	
Liz Creer		4.8	5.0	3.7	4.7	4.2		4.5	
Álvaro Garza		4.8	5.0	4.0	4.0	4.0		4.4	
Verónica Valdés		4.8	5.0	5.0	4.7	4.8		4.8	
3. Nutrition Counseling									
Usefulness[1]		5.0	5.0	4.8	4.7	4.7		4.9	
# of sessions	-not enough				1		1		1
	-just right	6	1	4	2		6		13
	-too many								
	-not answered								
# of patients	-not enough			1			1		1
	-just right	5	1	2	2		4		10
	-too many								
	-not answered	1		1	1		2		3
4. Breast Examination Simulation									
Usefulness[1]		5.0	5.0	5.0	4.3	4.7		4.9	
AUDIO-VISUAL REVIEWS									
5. Audio-visual Review Session									
Usefulness[1]		4.3	5.0	4.7	3.7	4.2		4.3	
FIELD TRIPS									
6. Tijuana Children's Hospital (ISSSTECALI)									
Usefulness[1]		3.3	5.0	4.8	3.3	4.1		3.9	
7. San Diego Wild Animal Park									
Usefulness[1]		4.2	5.0	4.8	3.3	4.1		4.2	

	Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
VIDEO TAPES SHOWN DURING COURSE								
8. "Amazing Newborn"								
Usefulness[1]	3.7	5.0	5.0	4.0	4.6		4.2	
9. "Breasts and Axillae"								
Usefulness[1]	5.0	5.0	5.0	4.7	4.9		4.9	
10. "San Jose Milk Bank" Usefulness[1]	4.5	5.0	4.5	4.7	4.6		4.6	
11. "Mother Kangaroo -- A Light of Hope"								
Usefulness[1]	4.7	5.0	4.5	5.0	4.7		4.7	
12. "Feeding Low Birth-weight Babies"								
Usefulness[1]	4.7	5.0	4.5	4.3	4.4		4.6	
READING ASSIGNMENTS								
13. Helsing								
Did Not Read								
Length -too long			2			2		2
-just right	2	1	2	2		4		7
-too short	1			1		1		2
-not answered	3							3
Ease of Reading[2]	4.8	5.0	4.8	5.0	4.8		4.8	
Usefulness[1]	5.0	5.0	4.5	4.5	4.5		4.8	
Use in Future? -yes	6	1	2	3		5		13
-no								
-not answered			1			1		1

		Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
14. Growth Monitoring (WHO)									
Did Not Read		4		2	2		4		8
Length	-too long								
	-just right	2	1	1			1		4
	-too short								
	-not answered			1	1		2		2
Ease of Reading[2]		4.9	5.0	4.5	5.0	4.7		4.7	
Usefulness[1]		4.9	4.0	4.7	4.0	4.5		4.4	
Use in Future?	-yes	2	1	2			2		5
	-no								
	-not answered			1	1		2		2
15. Control de Crecimiento (Griffiths)									
Did Not Read		5		2	3		5		10
Length	-too long			1			1		1
	-just right	1		1			1		2
	-too short								
	-not answered		1						1
Ease of Reading[2]		5.0	4.0	3.5		3.5		4.0	
Usefulness[1]		5.0	4.0	3.5		3.5		4.0	
Use in Future?	-yes	1	1	2			2		4
	-no								
	-not answered								
16. Huffman/Combest									
Did Not Read		4		2	2		4		8
Length	-too long								
	-just right	2		2			2		4
	-too short								
	-not answered		1		1		1		2
Ease of Reading[2]		5.0	5.0	5.0	5.0	5.0		5.0	
Usefulness[1]		5.0	5.0	4.5	5.0	4.7		4.8	
Use in Future?	-yes	2	1	2	1		3		6
	-no								
	-not answered								

		Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
17. IPPF Booklet									
Did Not Read				2			2		2
Length	-too long	1	1		1		1		3
	-just right	4		2	2		4		8
	-too short								
	-not answered	1							1
Ease of Reading[2]		4.8	4.0	5.0	5.0	5.0		4.8	
Usefulness[1]		4.8	5.0	5.0	5.0	5.0		4.9	
Use in Future?	-yes	6	1	2	3		5		12
	-no								
	-not answered								
18. WHO Code of Marketing									
Did Not Read		1		1	1		2		3
Length	-too long	1							1
	-just right	4	1	2	2		4		9
	-too short								
	-not answered			1			1		1
Ease of Reading[2]		4.6	5.0	5.0	5.0	5.0		4.8	
Usefulness[1]		5.0	5.0	5.0	5.0	5.0		5.0	
Use in Future?	-yes	5	1	2	2		4		10
	-no								
	-not answered			1			1		1
19. Protecting Infant Health									
Did Not Read		4	1	1	3		4		9
Length	-too long								
	-just right	2		1			1		3
	-too short								
	-not answered			2			2		2
Ease of Reading[2]		4.0		5.0		5.0		4.5	
Usefulness[1]		5.0		5.0		5.0		5.0	
Use in Future?	-yes	2		2			2		4
	-no								
	-not answered			1			1		1

		Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
20. Protection and Promotion of Breastfeeding (WHO/UNICEF)									
Did Not Read			1	2	1		3		4
Length	-too long								
	-just right	6		2	2		4		10
	-too short								
	-not answered								
Ease of Reading[2]		4.8		5.0	5.0	5.0		4.9	
Usefulness[1]		4.8		4.3	5.0	4.6		4.7	
Use in Future?	-yes	6		2	2		4		10
	-no								
	-not answered								
21. Facts for Life									
Did Not Read		4	1	2	3		5		10
Length	-too long	2							2
	-just right			1			1		1
	-too short								
	-not answered			1			1		1
Ease of Reading[2]		4.0		5.0		5.0		4.3	
Usefulness[1]		4.0		5.0		5.0		4.3	
Use in Future?	-yes	2		2			2		4
	-no								
	-not answered								
22. All for Health									
Did Not Read		3	1	2	2		4		8
Length	-too long			1	1		2		2
	-just right	3							3
	-too short								
	-not answered			1			1		1
Ease of Reading[2]		4.3			5.0	5.0		4.5	
Usefulness[1]		5.0		5.0	4.0	4.5		4.8	
Use in Future?	-yes	3		2	1		3		6
	-no								
	-not answered								

		Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
23. Breastfeeding: A Guide for Health Personnel									
Did Not Read		4		2	1		3		7
Length	-too long								
	-just right	2	1	2	2		4		7
	-too short								
	-not answered								
Ease of Reading[2]		5.0	5.0	5.0	5.0	5.0		5.0	
Usefulness[1]		5.0	5.0	5.0	5.0	5.0		5.0	
Use in Future?	-yes	2	1	2	2		4		7
	-no								
	-not answered								
24. Team Reprint Collection									
Did Not Read		2			1		1		3
Length	-too long	3	1	2	2		4		8
	-just right	1		1			1		2
	-too short								
	-not answered			1			1		1
Ease of Reading[2]		5.0	--	2.3	3.5	2.8		3.6	
Usefulness[1]		5.0	--	5.0	5.0	5.0		5.0	
Use in Future?	-yes	4	1	3	2		5		10
	-no								
	-not answered			1			1		1

MISCELLANEOUS IMPORTANT MATTERS

25. Syllabus								
Ease of Reading[2]	5.0	5.0	5.0	5.0	5.0		5.0	
Usefulness[1]	4.8	5.0	5.0	5.0	5.0		4.9	

	Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
26. Translation								
Understandability of lectures presented in English[3]	5.0	5.0	4.3	5.0	4.5		4.8	
Clinic Translation								
-adequate	5	1	4	3		7		13
-not adequate								
-not answered	1							1
Written Translation								
-adequate	6	1	4	2		6		13
-not adequate				1		1		1
-not answered								
27. Hotel Accommodations								
Adequacy[4]	5.0	5.0	4.8	4.7	4.7		4.9	
Use in Future? -yes	6	1	4	2		6		13
-no								
-not answered				1		1		1
28. Local Transportation								
Buses -adequate	2		1			1		3
-not adequate								
-not answered	4	1	3	3		6		11
Taxis -adequate	2		1	2		3		5
-not adequate								
-not answered	4	1	3	1		4		9
Hotel van -adequate	6	1	4	3		7		14
-not adequate								
-not answered								

	Nurse	Nutr	Ped	Ob	Physician Avg	Physician Tot	Group Avg	Group Tot
OVERALL EVALUATION								
29. Usefulness of providing this program to multidisciplinary teams[1]	5.0	5.0	5.0	5.0	5.0		5.0	
30. Increase in Knowledge[5]	4.8	5.0	4.3	4.7	4.4		4.7	
31. Recommendation for this program to be provided for other health professionals from developing nations -yes	6	1	4	3		7		14
-no								
-not answered								
32. I would rate this education program as: -Excellent	6	1	4	3		7		14
-Very Good								
-Good								
-Fair								
-Poor								
-No Answer								

APPENDIX 6

Colombian Program Plans

PROYECTO
GRUPO COLOMBIA

Clemencia Forero
Rosaura Cortés
Francisco Revollo
Edy Salazar
Esperanza Manjarréz

TABLA DE CONTENIDO

I-) Introducción

II-) Antecedentes

III-) Justificación

IV-) Modelo operacional

V-) Objetivos:

A. Objetivo general

B. Objetivos específicos

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2. Educativo 2.1 Actividades
3. Investigativo 3.1 Actividades

VI-) Proyecto de investigación

1. Problema
2. Objetivo general
3. Objetivos específicos
4. Propósitos
5. Instrumento # 1
6. Instrumento # 2

VII-) Presupuesto y recursos

VIII-) Cronograma

IX-) Evaluación

ANEXO: PROGRAMA EDUCATIVO PARA MADRES

I-) INTRODUCCIÓN

El programa se desarrollará en el Hospital Universitario San Ignacio de la Pontificia Universidad Javeriana, característica que da los pilares fundamentales del programa, siendo estos: la investigación, la docencia y la asistencia, de donde se derivan los objetivos del programa.

El programa fue elaborado por un equipo interdisciplinario, entrenado en Wellstart, siendo éste el primer paso del proyecto. Una vez presentado y aprobado el programa por las directivas de la Universidad y del Hospital, se iniciará una investigación que se desarrollará en dos etapas. En la primera etapa se obtendrán los datos que reflejarán la situación actual de la lactancia materna en el Hospital, y su análisis proporcionará los elementos para la elaboración de un programa educativo dirigido a madres durante su período pre y postnatal (segunda etapa). La investigación culminará con un estudio comparativo entre la situación de la lactancia materna anterior y posterior a la implementación del programa.

Como última etapa de este proyecto, se creará la Clínica de Lactancia Materna, con el fin de dar atención a todas las madres usuarias de la atención materna del Hospital, desarrollar programas educativos para el equipo de salud y estudiantes de los programas de pre y postgrado de las Facultades de Medicina, Enfermería y Nutrición.

El proceso investigativo será dinámico y permanente, para lograr progresivamente una mayor eficiencia del programa y ampliación de la atención al grupo infantil.

II-) ANTECEDENTES

La Universidad Javeriana es una institución de educación superior, sin ánimo de lucro y de carácter privado, fundada y regentada por la Compañía de Jesús.

Entre sus objetivos contempla:

- La búsqueda del saber
- Servir a la comunidad humana, especialmente a la colombiana, procurando la instauración de una sociedad más civilizada, más culta y más justa, inspirada por los valores que proclama el cristianismo.

La historia del Hospital San Ignacio comienza con la fundación de la Facultad de Medicina de la Universidad Javeriana en 1942. La Facultad de Enfermería inició sus primeros cursos en 1949 y la carrera de nutrición en 1957.

En 1946 se coloca la primera piedra; en 1949 se inicia la construcción del Hospital. En 1959 se abren los servicios de consulta externa y ginecoobstetricia. En 1963 se funda el servicio de pediatría y en 1965 los de cirugía y medicina interna. Entre los años 1966 y 1967 se crearon los servicios de urgencias y radiología al igual que cuidado intensivo.

El Hospital obtiene diferentes tipos de pacientes, teniendo por esto establecidas diferentes categorías y tarifas (esto para pacientes particulares). También atiende pacientes del Instituto de Seguro Social.

En la actualidad el Hospital cuenta con 232 camas, ofreciendo casi todos los servicios de atención especializada.

En 1989 se hospitalizaron 7.707 pacientes, de los cuales el 20% correspondió a pacientes particulares, otro 20% a pacientes de servicio general y el restante 60% a pacientes del Instituto de Seguro Social. En consulta externa se atendió un total de 56.357 pacientes, de los cuales 3.468 fueron de obstetricia y 2.136 de control postparto. El servicio de obstetricia atendió un total de 3.903 partos, de los cuales el 90,7% correspondió al Instituto de Seguro Social, 7,1% a servicio general y 2,2% a servicio particular. Del total de nacimientos, fueron de 2500 gramos o menor peso: 263 vivos y 15 muertos; mayores de 2500 gramos: 3613 vivos y 20 muertos.

La Unidad de Obstetricia cuenta con 18 camas para puérperas, 5 de alto riesgo, 10 de trabajo de parto y 21 camas en la Unidad de Recién Nacidos, distribuidas entre observación, cuidado intermedio y cuidado intensivo neonatal.

El recurso humano del servicio de Unidad de Recién Nacidos es:
Tres médicos pediatras neonatólogos
Dos médicos residentes de pediatría
Un estudiante interno de medicina
Ocho estudiantes de octavo semestre de medicina
Cuatro enfermeras profesionales.
Nueve auxiliares de enfermería.

En el Servicio de Ginecoobstetricia es:
Diez médicos especialistas en ginecología y obstetricia
Nueve médicos residentes en ginecología y obstetricia
Ocho estudiantes internos de medicina
Cuarenta estudiantes de noveno semestre de medicina
Ocho enfermeras profesionales
Dieciocho auxiliares de enfermería
Dos estudiantes de octavo semestre de enfermería
Doce estudiantes de quinto semestre de enfermería
Una nutricionista que está encargada del área de recién nacidos.

III-) JUSTIFICACIÓN

El Hospital San Ignacio es un hospital general que cuenta con 232 camas. El egreso hospitalario anual de maternidad es de 3861 pacientes, que corresponde al 31,4% de los egresos anuales del hospital, y la atención de pediatría corresponde al 6,7% del egreso total. La atención del Hospital al grupo materno-infantil es de 38%.

El Hospital no cuenta con programa formal de lactancia materna, realizándose motivación y enseñanza de manera informal, de acuerdo a la disposición de tiempo y motivación individual del equipo de salud. Por esta razón no existen trabajos investigativos que muestren realmente la situación de la lactancia en la población usuaria de la institución.

Teniendo en cuenta que la política actual del Hospital es ofrecer una atención especializada y ampliar su cobertura a áreas marginales de la población con las cuales ya viene trabajando la Universidad Javeriana con otras facultades, es éste el mejor momento para iniciar un programa formal de lactancia materna, apoyando el entrenamiento de un equipo interdisciplinario con la responsabilidad de organizar y poner a funcionar el programa.

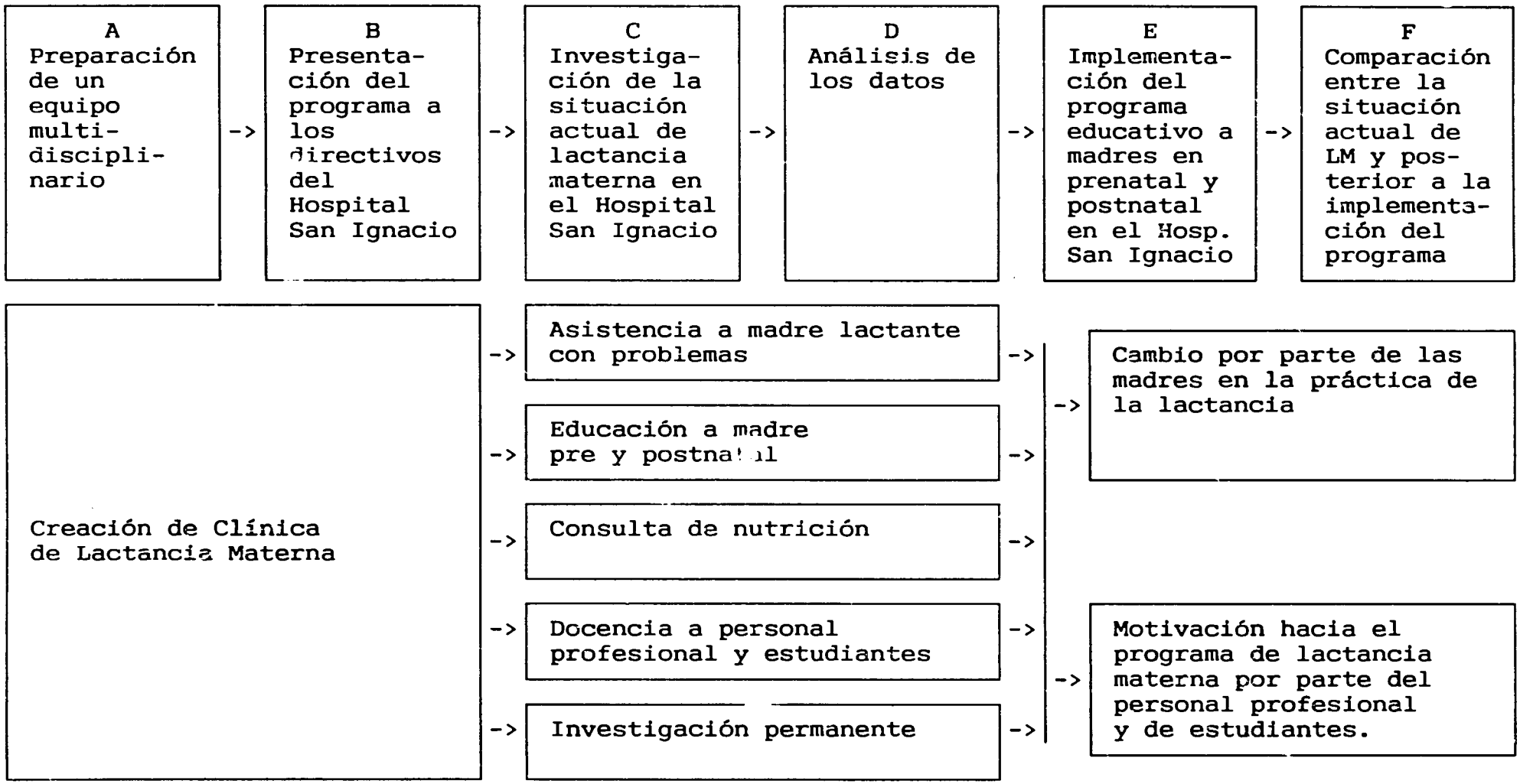
Este programa se basa en la creación de una clínica de lactancia que desarrollará programas de educación, asistencia e investigación para:

- Lograr una lactancia exitosa y prolongar el tiempo de lactancia en beneficio de la madre y el niño.
- Promocionar la lactancia exclusiva como método de planificación familiar.
- Dar atención especializada a la madre lactante y su hijo con el fin de mejorar las condiciones de salud de la población materno-infantil.

La Universidad contempla en su currículo un tiempo limitado para el desarrollo del programa de lactancia materna. Con la creación de la Clínica se pretende demostrar la importancia de ampliar los contenidos en los programas de pregrado y postgrado de las Facultades de Medicina, Enfermería y Nutrición. La Universidad participará activamente con la organización y desarrollo de la Clínica de Lactancia Materna con un enfoque de integración docente asistencial.

IV-)

MODELO OPERACIONAL



V-) OBJETIVOS

A. Objetivo general

Crear una clínica de lactancia materna en el Hospital San Ignacio con un enfoque interdisciplinario y docente asistencial para dar atención especializada a la madre lactante y a su hijo, incrementando la duración de la lactancia materna exclusiva a partir de febrero de 1991.

B. Objetivos específicos

1. Asistencial

Realizar control a las madres desde su período prenatal hasta tres meses postnatal, con el fin de proporcionar seguimiento y orientación para una lactancia efectiva.

Actividades

- Hacer una consulta de control prenatal en el último mes de embarazo que incluya consejo nutricional.
- Hacer consulta especializada a las madres que durante su control prenatal se le identifique algún problema para el futuro amamantamiento.
- Hacer seguimiento a las madres durante tres meses en el período postnatal, con una consulta inicial a los ocho días y posteriormente cada mes.
- Atender a las madres que durante la lactancia requieran consulta inmediata por problemas derivados del amamantamiento.
- Realizar orientación y seguimiento nutricional a madres que lo requieran durante el primer trimestre postnatal.
- Proporcionar asesoría en planificación familiar natural utilizando la lactancia exclusiva.
- Iniciar la lactancia materna en el puerperio inmediato, atendiendo la situación individual de cada paciente.
- Realizar control de crecimiento al recién nacido durante la consulta materna.

2. Educativo

a. Desarrollar programas de promoción e implementación de la lactancia materna, para el grupo de madres en el período pre y postnatal, esperando ampliar el tiempo de lactancia exclusiva.

Actividades

- Educar a las madres sobre lactancia materna y necesidades nutricionales en la consulta pre y postnatal.

- Educar individualmente a la madre, teniendo en cuenta su situación o problema particular de amamantamiento.

b. Desarrollar programas de capacitación sobre lactancia materna, para el equipo de salud, con el fin de hacerlo partícipe del programa.

Actividades

- Educar al equipo de salud del Hospital y de la Universidad que da atención al grupo materno-infantil.

- Implementar, en los programas de pre y postgrado de las Facultades de Medicina, Enfermería y Nutrición, el programa de lactancia materna.

- Propugnar por la educación continua en lactancia materna, de todo el personal del Hospital que labora en el área materno-infantil.

- Desarrollar cursos de educación continuada extramurales.

3. Investigativo

Desarrollar investigaciones sobre lactancia materna tendientes a mejorar las prácticas sobre lactancia materna.

Actividades

- Realizar una investigación para determinar la situación actual de la lactancia materna en el Hospital San Ignacio, de julio a octubre de 1990.

- Realizar un estudio comparativo entre la situación actual de la lactancia materna y la situación posterior a la implementación del programa educativo, de septiembre a enero de 1991.

VI-) PROYECTO DE INVESTIGACIÓN

EFECTIVIDAD DE UN PROGRAMA DE LACTANCIA MATERNA EN EL HOSPITAL SAN IGNACIO.

1. Problema:

   ¿Cuál es la efectividad de un programa de lactancia materna en el Hospital San Ignacio durante los meses de julio a noviembre de 1990?

2. Objetivo general:

   Evaluar la efectividad del programa de lactancia materna implementado en el Hospital San Ignacio.

3. Objetivos específicos:

   3.1. Identificar las características demográficas y obstétricas de las madres usuarias de la consulta prenatal.

   3.2. Conocer la situación actual de la lactancia materna en el Hospital San Ignacio, durante el mes de julio de 1990.

   3.3. Elaborar e implementar un programa educativo sobre lactancia materna, para madres durante su período pre y postnatal, en los meses de septiembre a noviembre de 1990.

   3.4. Comparar la situación de la lactancia materna entre el grupo de madres sin programa educativo y el grupo de madres incluido en el programa, durante los meses de diciembre de 1990 y enero de 1991.

4. Propósitos:

   4.1. Fortalecer el programa de lactancia materna del Hospital San Ignacio.

   4.2. Motivar al equipo de salud del área materno-infantil del Hospital y la Universidad para su participación activa en el programa.

   4.3. Crear una clínica de lactancia materna con trabajo interdisciplinario y docente asistencial para dar atención al grupo materno-infantil usuario del Hospital San Ignacio.

   4.4. Mejorar las condiciones de salud del grupo materno-infantil usuario del Hospital San Ignacio, con la implementación del programa.

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4.5. Mostrar a las Facultades de Enfermería, Medicina y Nutrición la necesidad de ampliar dentro de sus currículos los programas de lactancia materna.

(NOTA: En Bogotá se complementarán los siguientes aspectos: definición operacional de términos, diseño de variables, población y muestra, metodología y plan de análisis de datos.)

BREVE DESCRIPCIÓN DE LOS PASOS A SEGUIR DURANTE EL PROCESO INVESTIGATIVO:

La investigación se desarrollará a partir de julio de 1990 hasta enero de 1991, en 2 etapas:

1 Etapa:

Se seleccionará al azar una población de 100 prenatales (primi y multigestantes) asistentes a la consulta prenatal, que cumplan los siguientes criterios de selección:

- Vivir en el área de Bogotá.
- Tener 36 semanas de gestación o más.
- Primigestantes y multigestantes cuyo último hijo tenga máximo de 2 años de edad, debiendo contestar en este caso la encuesta refiriéndose a su experiencia en lactancia materna con este hijo.

Estas 100 madres contestarán una entrevista dirigida por un integrante del equipo entrenado, en 2 oportunidades: la primera durante su período prenatal y la segunda 3 meses después del nacimiento del bebé.

Una vez finalizada la recolección de datos, se analizarán y serán la pauta para la organización del programa educativo a un grupo diferente de madres.

2 Etapa:

Se seleccionará un nuevo grupo de 100 madres prenatales que acepten voluntariamente comprometerse con el programa educativo que se desarrollará durante su período prenatal y 3 meses de orientación y seguimiento en la etapa postnatal.

La investigación finalizará con la comparación de los resultados obtenidos durante la 1 y 2 etapas del proceso.

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5. INSTRUMENTO # 1

Esta entrevista se aplicará en forma dirigida a madres multigestantes, haciendo referencia a su experiencia en lactancia materna con su último hijo, no mayor de 2 años.

Nombre: _____ Fecha: _____

Dirección: _____

Teléfono: _____

1) Tipo de paciente: Nº historia clínica: _____

I.S.S. ☐

privada ☐

otros ☐ _____

2) Edad ☐☐ Escolaridad: primaria incompleta ☐

primaria completa ☐

bachiller ☐

estudios superiores ☐

3) Ocupación: hogar ☐

estudia ☐

trabaja ☐

4) Estado civil: casada ☐

soltera ☐

unión libre ☐

otro ☐

5) Historia obstétrica: G____ P____ P____ A____ V____

Otros:_____

Ahora vamos a hablar sobre cómo fue su experiencia con la lactancia materna de su último hijo, para lo cual le voy a hacer las siguientes preguntas:

6) ¿Qué edad tiene su último hijo?

7) ¿Alimento a su hijo con su leche materna?

Sí ☐ No ☐ ¿Por qué? _____

8) La decisión para alimentar a su hijo con leche materna, ¿la tomó usted sola?

Sí ☐ No ☐

9) ¿Quién la apoyó en la decisión de lactar? _____

10) ¿A las cuántas horas de recién nacido alimentó a su hijo con leche materna? _____

11) ¿Hasta qué edad lo alimentó exclusivamente con leche materna? _____

12) ¿A qué edad le inició a su hijo:

Agua? _____ ¿Por qué? _____

Otras leches? _____ ¿Por qué? _____

Otros alimentos? _____ ¿Por qué? _____

13) ¿A qué edad dejó de alimentar a su hijo con leche materna?

_____ ¿Por qué?_____

14) ¿Cómo interrumpió la alimentación con leche materna? ___

_____

¿Por qué?_____

15) ¿Tuvo algún problema para amamantar?

Sí ☐ ¿Cuál? _____

No ☐

16) ¿Recibió atención para este problema?

Sí ☐ ¿Cuál? _____

¿De quién?_____

No ☐

17) ¿Suspendió el amamantamiento por este problema?

Sí ☐ ¿Por cuánto tiempo?_____

No ☐

18) ¿Recibió preparación sobre lactancia materna?

Sí ☐ ¿De quién? _____

No ☐

19) ¿Qué le enseñaron? _____

20) Narre brevemente su experiencia de lactancia: _____

_____

_____

21) ¿Piensa lactar a este bebé?

Sí ☐ No ☐

¿Por qué?_____

¿Por cuánto tiempo? _____

NOTA: Esta entrevista se realizará a los dos grupos, de madres preparadas y no preparadas, en dos oportunidades: durante el período prenatal y a los tres meses de nacido el bebé.

6. INSTRUMENTO # 2

Esta entrevista se aplicará en forma dirigida a madres primigestantes.

Nombre: _____ Fecha: _____

Dirección: _____

Teléfono: _____

1) Tipo de paciente: Nº historia clínica: _____

I.S.S. ☐

privada ☐

otros ☐ _____

2) Edad ☐☐ Escolaridad: primaria incompleta ☐

primaria completa ☐

bachiller ☐

estudios superiores ☐

3) Ocupación: hogar ☐

estudia ☐

trabaja ☐

4) Estado civil: casada ☐

soltera ☐

unión libre ☐

otro ☐

5) Historia obstétrica: G____ P____ P____ A____ V____

Otros: _____

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Ahora vamos a hablar sobre qué piensa hacer en cuanto a lactancia materna con este hijo que espera, para lo cual le haremos unas preguntas muy cortas:

6) ¿Piensa lactar a su hijo?

Sí ☐ No ☐ ¿Por qué? _____

7) ¿Hasta qué edad lo piensa alimentar con leche materna en forma exclusiva? _____ ¿Por qué? _____

8) ¿Cuándo piensa iniciar los siguientes alimentos?

Aguas _____ ¿Por qué? _____

Otras leches _____ ¿Por qué? _____

Otros alimentos _____ ¿Por qué? _____

9) ¿A qué edad ha pensado dejar de alimentar a su hijo con leche materna? _____ ¿Por qué? _____

10) ¿Qué opina sobre la leche materna? _____

_____

11) ¿Cómo ha pensado que será su experiencia de lactancia materna? _____

12) ¿Qué consejos ha recibido para el amamantamiento? _____

_____

13) ¿Cree que tendrá algún problema para amamantar?

Sí ☐

No ☐ ¿Cuál? _____

14) ¿Ha recibido preparación sobre lactancia materna?

Sí ☐ ¿De quién? _____

¿Qué le enseñaron? _____

No ☐

VII-) PRESUPUESTO Y RECURSOS

RECURSO HUMANO

Para la implementación inicial del programa, se cuenta con los profesionales que asistieron al curso en Wellstart: un médico ginecoobstetra, tres enfermeras, una nutricionista.

Durante la implementación del programa, hasta la creación de la clínica de lactancia, los sueldos de dicho personal serán pagados por la Universidad Javeriana y el Hospital San Ignacio respectivamente. A partir de la creación de la clínica, será necesario financiar los sueldos del personal que trabajará en la clínica de lactancia (estimación de US$3000 por mes). Para el funcionamiento adecuado del programa es necesario contar con una secretaria a partir de julio de 1990, con un sueldo estimado US$200 mensuales.

RECURSOS MATERIALES

Se contará con las ayudas audiovisuales disponibles en la Universidad Javeriana, además con el material didáctico en Wellstart (Presupuesto US$400).

Para la encuesta inicial es necesario utilizar un formato especial cuya elaboración tendría un costo de US$30. Para la tabulación de los resultados y el manejo posterior de toda la información de la clínica, se requiere un computador cuyo costo aproximado es de US$5000.

Para la adecuación locativa de la clínica, adecuación de consultorios y oficina, salas de espera, sala de reuniones, etc., el presupuesto aproximado es de US$5000.

Además se estima un gasto mensual para papelería e implementos de trabajo diario, fotocopias, nuevo material educativo y otros de US$100 mensuales.

VII-) PRESUPUESTO Y RECURSOS

RECURSO HUMANO

Para la implementación inicial del programa, se cuenta con los profesionales que asistieron al curso en Wellstart: un médico ginecoobstetra, tres enfermeras, una nutricionista.

Durante la implementación del programa, hasta la creación de la clínica de lactancia, los sueldos de dicho personal serán pagados por la Universidad Javeriana y el Hospital San Ignacio respectivamente. A partir de la creación de la clínica, será necesario financiar los sueldos del personal que trabajará en la clínica de lactancia (estimación de US$3,000.00 por mes). Para el funcionamiento adecuado del programa es necesario contar con una secretaria a partir de julio de 1990, con un sueldo estimado US$200.00 mensuales.

RECURSOS MATERIALES

Se contará con las ayudas audiovisuales disponibles en la Universidad Javeriana, además con el material didáctico en Wellstart (Presupuesto US$400.00).

Para la encuesta inicial es necesario utilizar un formato especial cuya elaboración tendría un costo de US$30.00. Para la tabulación de los resultados y el manejo posterior de toda la información de la clínica, se requiere un computador cuyo costo aproximado es de US$5,000.00.

Para la adecuación locativa de la clínica, adecuación de consultorios y oficina, salas de espera, sala de reuniones, etc., el presupuesto aproximado es de US$5,000.00.

Además se estima un gasto mensual para papelería e implementos de trabajo diario, fotocopias, nuevo material educativo y otros de US$100.00 mensuales.

VIII-) CRONOGRAMA

1. PRESENTACIÓN DEL PROGRAMA A DIRECTIVAS DEL HOSPITAL Y UNIVERSIDAD	JUN 90
2. SITUACIÓN ACTUAL (ENTREVISTA Nº1)	JUL - AGO 90
3. ANÁLISIS DE DATOS, SITUACIÓN ACTUAL	
4. PROGRAMA EDUCATIVO	SEP - NOV 90
5. SITUACIÓN ACTUAL (ENTREVISTA Nº2)	OCT 90
6. ANÁLISIS COMPARATIVO	DIC 90 - ENE 91
7. CREACIÓN DE LA CLÍNICA DE LACTANCIA	FEB 91
8. ASISTENCIA Y TRABAJO EN LA CLÍNICA	FEB - JUN 91
9. ORGANIZACIÓN: PLAN CURRICULAR DE FACULTADES	
10. IMPLEMENTACIÓN DEL PROGRAMA DE LACTANCIA EN FACULTADES	JUL 91
11. 1ª EVALUACIÓN DEL PROGRAMA Y EVALUACIÓN DE LA CLÍNICA DE LACTANCIA	DIC 91

IX-) EVALUACIÓN

Durante el desarrollo del programa se enuncian las evaluaciones en cada una de las etapas.

Con este proyecto pretendemos fundamentalmente aumentar las prácticas de lactancia materna exclusiva, para lo cual es muy importante evaluar los procesos educativos y las labores asistenciales a medida que se van desarrollando, tendientes a mejorar las técnicas de amamantamiento y solucionar los problemas que las madres tienen durante la lactancia.

Otro factor importante para considerar, es el impacto de la Clínica de Lactancia en la comunidad, en el Hospital y en la Universidad en cuanto pueda modificar las tendencias actuales de la lactancia.

Con este proyecto pretendemos fundamentalmente cambiar las prácticas de lactancia en las madres.

Motivar al equipo de salud de la Universidad y del Hospital San Ignacio a la participación activa en el programa de lactancia materna promoviendo un cambio en actitudes y conocimientos.

Finalizado 1991 se presentará un informe evaluativo de la Clínica de Lactancia Materna, producto de evaluaciones periódicas trimestrales que permitirán ir haciendo los ajustes que se consideren necesarios.

ANEXO

PROGRAMA EDUCATIVO PARA MADRES

OBJETIVO

Prolongar el tiempo de duración de la lactancia materna exclusiva (El tiempo se determinará según resultado de la encuesta).

El programa se desarrollará en tres etapas: prenatal, postparto inmediato, ocho días postparto.

1. ETAPA PRENATAL

TEMA: Leche materna

OBJETIVOS: Al finalizar el aprendizaje las madres estarán en capacidad de:

a. Describir en forma sencilla cómo se produce, almacena y sale al exterior la leche materna.

b. Nombrar tres factores que influyen en la producción y secreción de la leche materna.

c. Establecer dos diferencias entre la leche materna y otras leches.

d. Sustentar por qué la leche materna es el mejor alimento para el niño.

e. Enunciar dos ventajas de la lactancia materna exclusiva para la madre y dos para el niño.

f. Describir un menú diario que cubra sus necesidades nutricionales teniendo en cuenta su condición socioeconómica.

CONTENIDO: a. Anatomía de la mama.

b. Producción, secreción y eyección láctea (fisiología de la lactancia).

c. Factores biopsicosociales que determinan la producción y secreción láctea.

d. Requerimientos nutricionales para la lactancia materna.

e. Componentes esenciales de la leche materna.

f. Comparación entre la leche materna y otras leches.

g. Ventajas de la lactancia materna exclusiva para la madre y para el niño.

MÉTODO: Charla participativa a grupos de cinco madres, partiendo de su nivel de conocimientos.

RECURSOS:
- Salón decorado con posters alusivos al tema.
- Película: "María".
- Frascos con diferentes leches maternas.
- Frascos con otras leches.
- Láminas con dibujos sobre anatomía y fisiología.

EVALUACIÓN: Una vez terminada la charla, se harán preguntas para verificar el logro de los objetivos propuestos, valorando la adquisición de conocimientos.

A mediano plazo (postparto inmediato): verificar una actitud positiva frente a la lactancia materna y la aplicación correcta de los conocimientos adquiridos durante la educación prenatal.

2. POSTPARTO INMEDIATO

TEMA: Lactancia materna, proceso natural sin dolor

OBJETIVOS: Finalizada la charla, la madre sustentará dos factores que hagan de la lactancia materna un proceso placentero.

CONTENIDO:
- Condiciones maternas biopsicosociales que favorecen el amamantamiento (posición adecuada, relajación, apoyo de la pareja, ambiente tranquilo, etc.).
- Técnicas de amamantamiento.
- Extracción manual de la leche.
- Prevención de complicaciones.
- Conservación de la leche materna.
- Indicadores de una lactancia efectiva en la madre y el niño.
- Reforzar enseñanza sobre requerimientos nutricionales para la madre lactante.

MÉTODO:
- Charla educativa a grupo de seis madres hospitalizadas en la misma habitación.
- Verificación individual del aprendizaje a través de la demostración.

MÉTODO: Plegable sobre requerimientos nutricionales para ser entregado a cada madre.

RECURSOS: La madre, su recién nacido y un profesional de la salud.

EVALUACIÓN:- Observación individual de la técnica una vez terminada la charla.
- Control a los ocho días para evaluar la efectividad de la lactancia y del amamantamiento.

3. OCHO DÍAS POSTPARTO

TEMA: Introducción a la planificación familiar natural a través de la lactancia materna exclusiva.

OBJETIVO: Que la madre identifique sus necesidades de planificación familiar.

CONTENIDO: Información general sobre la lactancia materna exclusiva como método de planificación familiar natural.

MÉTODO: Información personal durante la consulta postparto a los ocho días.

RECURSOS: Madre y profesional de la salud.

EVALUACIÓN:Identificación de las madres que muestren motivación por querer ampliar la información acerca de este método.

NOTA: Durante la consulta mensual de los tres primeros meses, se hará seguimiento a la madre para verificar la efectividad de la lactancia y dar la orientación individual según la situación particular.

EVALUACIÓN DEL PROGRAMA EDUCATIVO

A través de una investigación se comparará la situación de lactancia materna antes de iniciado el programa y después de aplicado durante tres meses, esperando con esto el cumplimiento del objetivo propuesto.

APPENDIX 7

El Salvadoran Program Plans

Asociación Salvadoreña Pro Salud Rural.
ASAPROSAR
1990

Programa comunitario de promoción de lactancia materna, nutrición y destete.

Presentado por:

Dra. Mazima P. de Rodríguez
Mirna E. de España

San Diego, California, Abril 1990.

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SITUACIÓN Y PROBLEMÁTICA ACTUAL EN CUESTIÓN DE SALUD MATERNO-INFANTIL Y LACTANCIA MATERNA EN LAS COMUNIDADES DE SANTA ANA EN EL SALVADOR

El Salvador es el país más pequeño de América Central y que posee la más alta densidad poblacional, con una estimación poblacional de 7 millones de habitantes.

En la actualidad no tenemos datos estadísticos de nuestra población. Debido a la situación político-social que estamos viviendo, no ha habido un censo desde el año de 1970.

En nuestro país la alta densidad poblacional está asociada a una tasa global de fecundidad de 5 nacimientos por mujer y una tasa de natalidad de 36 nacimientos por mil habitantes.

En cuanto a salud se puede decir que el Ministerio de Salud Pública solamente cubre un 40% de la población, en donde se le da más atención al área urbana y en lo mínimo al área rural donde el índice poblacional es más alto.

También se puede decir que en un 68% de las mujeres embarazadas estuvieron en control prenatal y solamente un 30% de mujeres tienen una atención del parto en hospital y las demás son atendidas en casa por parteras capacitadas o tradicionales.

Si hablamos de morbilidad diremos que las tres primeras causas de enfermedad son infecciones respiratorias agudas, enfermedades gastrointestinales y enfermedades inmunoprevenibles (sarampión).

Ahora haremos una breve descripción de la situación y problemática actual en cuanto a salud materno-infantil y lactancia materna en las comunidades del cantón El Jute, Casas de Teja y San Jerónimo, jurisdicción de Candelaria de la Frontera y cantón El Pinalón, jurisdicción de Santa Ana, todos estos en el departamento de Santa Ana. La población total de estas comunidades es de 10,000 habitantes de los cuales 460 son niños menores de 6 años y 325 mujeres en edad fértil, considerando en edad fértil de 12 a 45 años de edad.

Conociendo las necesidades y problemas de esta población, nació ASAPROSAR, una institución no gubernamental, sin fines de lucro, fundada bajo un solo fin: procurar que las familias campesinas de El Salvador alcanzaran mejores niveles de vida por medio de

la salud preventiva, higiene, nutrición y educación. Considerando la importancia de la lactancia materna para la supervivencia infantil, hemos decidido llevar a cabo un programa de educación para la lactancia materna.

Podríamos decir que el problema existente en cuestión de salud materno-infantil es que el 80% de niños menores de 6 años presentan algún grado de desnutrición. Debido a esto estamos trabajando con un programa de alimentación suplementaria, el cual funciona de la siguiente manera. Se inscribe en el programa todo niño menor de 6 años y con algún grado de desnutrición. Cada niño recibe consulta por morbilidad y control infantil, dándole un seguimiento al peso por edad, y las madres reciben educación continua en cuanto a nutrición y los riesgos que conlleva la desnutrición. Además se le dan cursos sobre la preparación de alimentos. En este programa también participa la embarazada y madre lactante para mejorar su dieta alimenticia.

La embarazada recibe control prenatal en la clínica de salud más cercana que ASAPROSAR ha construido en 3 comunidades. Estas señoras son orientadas sobre la importancia de su control. El 96% de los partos son atendidos por la partera capacitada de las comunidades y un 4% son atendidas en un hospital por alguna complicación que se presente en cualquier período del parto.

Estas madres comienzan a lactar minutos después del parto sin tener conocimientos de una técnica adecuada del amamantamiento. Cuando el niño tiene un mes de vida es llevado a control infantil, en donde a la madre se le recomienda la lactancia exclusiva hasta los 4 o 6 meses y se le orienta sobre la importancia y ventajas de la lactancia materna.

La mayoría de los niños se mantienen en peso normal durante el primer año de vida, pero hemos visto que el problema comienza a lo largo del destete, cuando la madre lo hace en una forma brusca y las mamadas no son frecuentes. Es entonces cuando la madre se embaraza y suspende la lactancia y es ahí donde los niños comienzan a perder peso.

Por esta razón nosotros hemos considerado desarrollar el proyecto, haciendo énfasis a «la nutrición y el destete».

Diremos que la lactancia materna en nuestras comunidades es una alternativa de sobrevivencia infantil. Las madres están conscientes de las ventajas económicas de la leche materna. La duración mínima es de 2 años y los casos en que se suspende son debidos a un nuevo embarazo. El 100% de las madres le proporcionan el calostro a sus niños y consideran que es la primera bajada de leche.

Los niños duermen junto a su madre desde su nacimiento, porque ésta considera que así están más cómodos y protegidos.

Los alimentos que son más frecuentes y al alcance de las comunidades son verduras, bananos, caldo de frijoles, arroz y consomé. Los problemas de salud más relevantes durante el destete son las enfermedades gastrointestinales y seguidamente la desnutrición. Debido al factor económico, no se les proporciona las cantidades y calidad de nutrientes necesarios para su crecimiento y desarrollo. Agregado a esto, el problema económico toma un papel muy importante, ya que existe una mínima cantidad de familias que poseen tierras propias para sus trabajos agrícolas. Otros están favorecidos con la transformación agraria y un 50% de familias tienen un patrono que les da trabajo en sus haciendas y tienen obligaciones que cumplir para tener un lugar donde vivir con su familia.

Los cultivos más predominantes son maíz, frijol y maicillo. En algunos caseríos donde el agua es abundante cultivan hortalizas. Estas cosechas son las que les ayudan en su alimentación y para poder subsistir económicamente.

El índice de natalidad no se puede generalizar en toda la comunidad. ASAPROSAR comenzó a trabajar en un sector hace seis años, y en éste el índice de natalidad ha disminuido debido a la educación continua que técnicos, trabajadores y promotores de salud les hemos proporcionado. En cambio, tenemos alrededor de año y medio trabajando en otro sector donde, debido al difícil acceso a las zonas urbanizadas, las creencias y patrones culturales están más arraigados. Pero ASAPROSAR trabaja incansablemente, dándoles educación a los grupos de madres y jóvenes que tenemos en esta comunidad.

Podemos decir que el índice de morbilidad en nuestras clínicas es:

80% Desnutrición
20% Enfermedades respiratorias agudas
5% Enfermedades gastrointestinales
3% Enfermedades de la piel
2% Parasitismo intestinal

La mortalidad infantil y materna ha disminuido debido a la atención continua que ASAPROSAR proporciona. Cuando se presenta un caso de emergencia y el personal médico no se encuentra en la comunidad, es el promotor de salud y partera capacitada los que actúan inmediatamente. Si el caso amerita hospitalización, ellos son los responsables del traslado.

PLAN OPERATIVO

TÍTULO: Programa comunitario de promoción de lactancia materna, nutrición y destete.

PROPÓSITO: Que el personal de ASAPROSAR mantenga, a través de un proceso educativo, las bases necesarias para poder desempeñar eficazmente el programa de lactancia materna, nutrición y destete, en beneficio de las familias de las comunidades atendidas.

OBJETIVOS:

- Realizar un muestreo con cincuenta madres de niños menores de un año que participan en el grupo materno-infantil, pasándoles una encuesta relacionada con la lactancia, nutrición y destete para un estudio basal.

- Que al finalizar la capacitación los participantes adquieran nuevos conocimientos, técnicas adecuadas para la lactancia y destete y lo trasmitan a las madres mediante entrevistas en el hogar.

- Las madres que participen en el muestreo presenten cambios aptitudinales, aplicando las técnicas adecuadas en el destete y manteniendo el peso estable en sus hijos con alimentos disponibles en la comunidad.

- Realizar una evaluación cada mes, durante tres meses, a las madres que participan en el muestreo, después que el trabajador de salud les ha educado en cuanto a lactancia materna, nutrición y destete, mediante visitas domiciliares, consulta y postconsulta.

METAS:

- Incrementar en un 50% los conocimientos sobre lactancia materna, de los participantes a la capacitación, utilizando una metodología adecuada a su nivel educativo.

- Lograr que el 75% de las madres participantes en el estudio basal apliquen los conocimientos adquiridos, practicando el destete en una forma adecuada.

- Que el 50% de las madres participantes en el estudio basal multipliquen los conocimientos sobre técnicas de lactancia materna, nutrición y destete a las demás madres lactantes de la comunidad.

METODOLOGÍA

El programa comunitario de promoción de lactancia materna, nutrición y destete, será desarrollado de la siguiente manera:

- Visitas domiciliares a madres seleccionadas para el estudio, para pasarles un cuestionario (detallado en anexo).

- Tabulación de los datos del cuestionario, para conocer deficiencias de conocimientos en la comunidad.

- Realización del temario a desarrollar con los participantes en la capacitación, basándonos en las necesidades.

- Programación y desarrollo de la capacitación a personal técnico y trabajadores de salud voluntarios de la comunidad.

- Visitas domiciliares a madres de las comunidades, para impartir educación sobre lactancia materna, nutrición y destete.

- Monitoreo y evaluación será control cada mes en la clínica, con peso y talla a los niños de las madres participantes en el estudio, y se desarrollarán las siguientes preguntas:
  ¿Ha tenido usted información sobre lactancia materna?
  ¿Quién se la ha dado?
  ¿Cuántas veces amamantó a su hijo por la mañana y noche de ayer?
  ¿Qué más le está dando a su hijo?
  ¿Quién se lo indicó?
  ¿Cuántas veces le da alimentos sólidos al niño?
  ¿Qué cantidad de alimentos le da cada vez al niño?
  Este último mes, ¿padeció alguna enfermedad su hijo?

RESPONSABLES DEL PROYECTO:

La junta directiva de ASAPROSAR será la responsable del proyecto, delegando funciones como responsables al personal del área médica (asistentes al curso de Wellstart en San Diego: Dra. Mazima Palacios de Rodríguez y Enfermera Mirna Elizabeth de España).

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BENEFICIARIOS DEL PROYECTO:

Trabajadoras sociales, ayudantes comunitarios de salud, promotores de salud y parteras capacitadas. En la comunidad: grupos de madres organizadas, grupos de jóvenes, grupo materno-infantil (madres embarazadas, lactantes y madres de niños desnutridos).

RECURSOS: Humano
Material de apoyo
Económico (Estará financiado con los fondos de la institución proporcionados por la Fundación Interamericana.)

El programa de capacitación a técnicos y trabajadores de salud voluntarios tendrá una duración de cuatro semanas, con sesiones de ocho horas una vez por semana.

La metodología didáctica incluirá:
- Conferencias
- Discusiones de grupo
- Sociodramas
- Análisis de material educativo
- Prácticas en la clínica de técnicas del amamantamiento

Luego los participantes en la capacitación estarán listos para echar a andar el proyecto en las comunidades, impartiendo educación por medio de visitas domiciliares, charlas demostrativas en reuniones de grupo de madres y jóvenes, orientación durante la consulta y postconsulta o en cualquier oportunidad que tenga para conversar con las madres.

Se hará una evaluación del programa incluido en nuestro proyecto, que es salud y desarrollo comunitario. Ésta prácticamente se hace en el mes de diciembre y es donde se conocerán los logros obtenidos y si es necesario una realimentación.

Asociación Salvadoreña Pro Salud Rural

ASAPROSAR

1990

Proyecto: Programa comunitario de promoción de lactancia materna, nutrición y destete.

PRESUPUESTO DEL PROYECTO

	Rubro	Nº requerido	Costo unitario	Costo total
a-	Papelería:			
	Lápices	30	₡ 0.60	₡ 18.00
	Libretas	30	₡ 4.00	₡120.00
	Resmas papel bond base 20	2	₡25.00	₡ 50.00
	Pliegos papel periódico	25	₡ 0.50	₡ 12.50
	Plumones	10	₡ 6.00	₡ 60.00
b-	Suministros:			
	Refrigerios mañana y tarde	30 x 2	₡ 1.25	₡ 75.00
	Almuerzos	30	₡10.00	₡300.00

CUESTIONARIO A DESARROLLAR EN EL ESTUDIO BASAL A UN GRUPO DE MADRES EN UNA COMUNIDAD DE EL SALVADOR

1. ¿Cuántos niños ha tenido? ¿Menores de dos años?

2. ¿Edad de su hijo menor?

3. ¿Está su hijo alimentado al seno materno exclusivo?

4. ¿Qué más le está dando a su hijo?

5. ¿Cuántas veces amamantó a su hijo por la mañana y noche de ayer?

6. ¿Cuántas veces le da en el día alimentos sólidos al niño y qué cantidad?

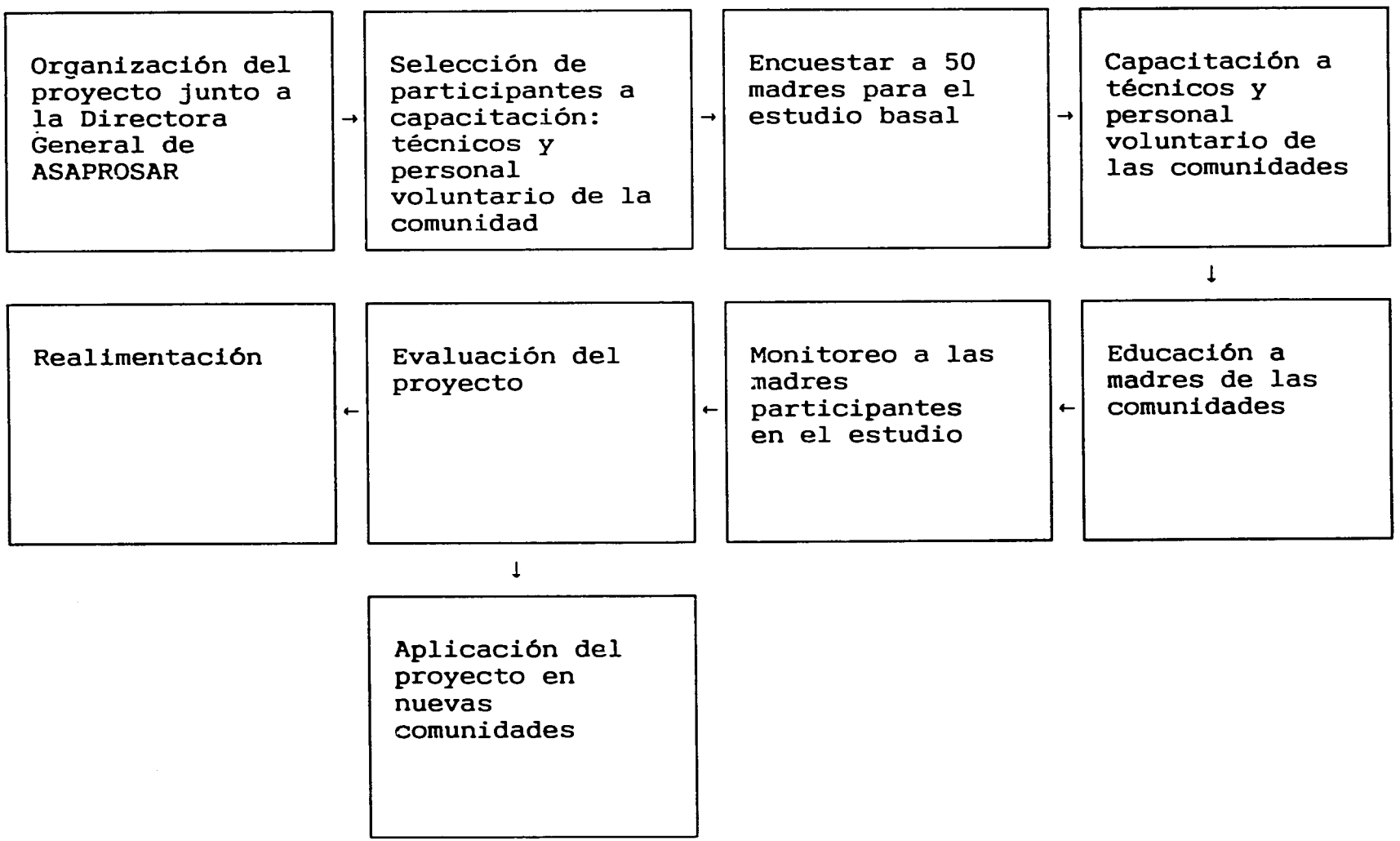
7. ¿Ha tenido necesidad de usar biberones?

8. Este último mes, ¿padeció alguna enfermedad su hijo?

9. ¿Alguna vez ha tenido alergias su hijo y qué tipo?

10. ¿Ha habido necesidad de planificar la familia? ¿Qué método ha usado?

Proyecto de educación



Cronograma de actividades

Actividad	1990 May.	Jun.	Jul.	Ago.	Sep.	Oct.	Nov.	Dic.	Año 1991
Elaboración del proyecto	—								
Presentación del proyecto a la junta directiva de ASAPROSAR	—								
Encuesta y tabulación de datos		—	—						
Preparación de capacitación			—						
Desarrollo de capacitación				—	—	—	—		
Educación a madres					—	—	—	—	
Monitoreo de actividades					—	—	—	—	
Evaluación del proyecto con personal técnico								—	
Aplicación del proyecto en nuevas comunidades									—

APPENDIX 8

Peruvian Program Plans

NATIONAL CENTER FOR TRAINING AND RESEARCH IN LACTATION MANAGEMENT

LIMA - PERU

ADDITIONS TO MARCH, 1990 PROPOSAL
Presented by Peruvian Team May 4, 1990

1.SUMMARY

This training program builds on the results of experiences obtained from the demonstration research project entitled, "A Controlled Trial to Extend the Duration of Exclusive Breastfeeding Among Low-Income Mothers in Lima, Peru, which began in Sept 1988 and will be completed by April 1990; referred to here as the Peru Breastfeeding Project (PBP). That research was a cooperative project between The Johns Hopkins University (JHU) and the Cayetano Heredia University (CHU). It was funded by The Population Council from USAID/W Office of Population, Division of Research. The principal investigator is Dr. Laura Altobelli (JHU), and the coprincipal investigators are Drs. N. Baiocchi (UPCH) and E.Larson (JHU). This intervention research project was aimed at demonstrating the effect of a hospital-base intervention on improving mother and infant practices in the first three months of life, with the specific goal of prolonging exclusive breastfeeding. The project was comprised of three phases: 1.baseline data collection, 2.development and implementation of the intervention that included hospital personnel in-service training and educational material development, and 3.-evaluation of the intervention (which is being completed at this time). On the basis of the achievements of that project, the investigators, advisors and training staff are proposing the establishment of the National Center for Training and research in Lactation Management, whose goal would be to increase the duration of exclusive breast feeding by training health professionals in this subject area on wider scale. This center will be affiliated to the center for research and Training in Diarrheal Diseases for Children of the Department of Pediatrics of the UPCH in Lima, Peru. (?)

The proposed program will train multidisciplinary teams of health personnel from hospitals and peripheral health facilities of the Ministry of Health (MOH) and the Peruvian Social Security Institute (IPSS) to become trainers in lactation management, promotion of exclusive breastfeeding, and proper infant feeding supplementation. These multidisciplinary teams will attend an initial intensive training course which is based on the information, materials, and methods obtained and developed during the demonstration research project mentioned above. Following this training, the Center staff will provide the participants with technical assistance to organize and implement courses for health personnel in their own hospitals and peripheral services.

Training materials developed for the BPP will be used and modified as necessary, and provided to each participating hospital for use in the replica courses, promotional materials for education of pregnant and parturient mothers, also developed for the PBP, will be provided as well.

Each course given at the Center will be of two week duration, with an emphasis on improving both knowledge and practice. Four courses will be offered during the first year with a maximum of 4

Therefore, it is projected that 16 teams from an equal number of hospitals will be trained during the first year and 40 teams during the next two years. Each team will reach an estimated 150 to 250 health professionals and non professionals through replication of the Center course in their home hospitals and peripheral services, thus reaching a total extension of 8,400 to 14,000 health personnel during the three year period.

The Center will be staffed initially by a multidisciplinary team of professionals, including an MCH public health researcher/program administrator, four pediatricians,two obstetricians, a pediatric nurse faculty member, and two nurse specialists in neonatology and child growth and development. Most of the staff will have been trained at the Wellstart/San Diego Lactation Management program.

IV.-GOAL: The main goal is to increase the duration of exclusive breastfeeding among mothers who deliver in the hospitals whose staff receive training through the National Center for Training in Research and Lactation Management.

V.-OBJECTIVES

A. General Objectives of the National Center for Training and Research in Lactation Management.

During the three year period of the project, the National Center for Training and Research in Lactation Management will:

1) Increase the lactation management skills and knowledge of 56 health professionals teams on average of 30 %, through 14 courses conducted at the Center.

2) Distribute educational materials (already developed and tested under the PBP) to each team for use in education of pregnant and parturient mothers , and to modify and retest materials as possible.

3) Provide up dated information on lactation management to personnel trained under the project through periodic mailings (every 4 months) of recently published materials and/or periodic publication by the Center of a lactation newsletter for mailing to all course graduates and other interested parties and institutions.

4) Provide a refresher course, conference or seminar once a year and follow-up visits to personnel trained under the project.

5) Promote and conduct further research on the effect of its Training Program, on promotion of exclusive breastfeeding, and other epidemiologic ,ethnographic,and clinical issues related to breastfeeding management in health facilities and in the home.

6) Explore the possibility of expanding the Center's Training to include in the future teams from neighbouring countries.

7) The National Center wil expect that at least 70% of the hospitals from which teams have been trained will make significant changes in hospital policies and procedures to better promote breast feeding; and that

8) At least 70 % of the teams trained will conduct local replica courses or educational activities.

B. Specific Training Program Objectives for a three year period:

1) To modify and improve the teaching materials and educational materials developed under the previous Breast Feeding project (PBP) and to develop outlines of sessions contents.

2) To train 56 multidisciplinary teams of health personnel from hospitals of the Ministry of Health (MOH) and Peruvian Social Security (IPSS) to be trainers in lactation management, promotion of exclusive breastfeeding during a three year period.

3) To provide technical assistance to 70 % of the multidisciplinary teams to be trained at the Center to organize and implement training courses for health personnel in their own hospitals and peripheral health services, and to establish their own permanent lactation management programs.

4) To distribute the teaching and educational materials developed for the PBP to each participating hospital to support the replica courses , conferences or seminars and local lactation management programs

5) To publish and distribute every four months a continuing education newsletter on lactation management to Center graduates and other interested parties and institutions.

6) To provide at least one refresher course and/or seminar to 60 % of the teams to be trained in the Center.

VI.TEACHING MATERIALS AVAILABLE TO SUPPORT LACTATION MANAGEMENT TRAINING AT THE CENTER AT UPCH

II.METHODOLOGY

A.Organization of the Training Program

The Center will prepare multidisciplinary teams of trainers in lactation management. A total of 14 courses of two-week duration will be offered during a three year period with a maximum of 12 participants in each course. It is projected that an average of 18 teams from an equal numbers of public hospitals will be trained each year.Each team will reach an estimated 150-250 health professionals and non professionals through replication of the Center course or seminars or conferences in their home hospitals and peripheral services with a total extension of 8400 to 14000 health personnel in a three year period.

B. Hospital and Participant Selection

The Center Board of Directors will identify the hospitals to be invited to participate in the program, in collaboration with the stated priorities of the Peruvian MOH. Invitations to participate will be sent to the hospitals previously identified by the Board

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od Directors. For the first year of the program an attempt will be made to identify two-thirds of the participating hospitals from urban areas outside of Lima, and one-third from Lima (explain..... Preference will be given to major hospitals outside of Lima and to hospitals in Lima with an active obstetrical service of approximately 250 or more deliveries a month. An attempt will be made to identify hospitals where the Hospital Director is enthusiastic about and willing to support a lactation management program in his hospital.

Participants will be carefully selected from chosen hospitals through an application process. The applications will be received and assessed by the Center Board of Directors, which will determine the selection criteria and make the final selection of participants. Formal individual invitations will be made to participants in the form of a training scholarship. Selection will be partially made on evidence on motivation to actively participate as a member of a multidisciplinary training team to conduct lactation management training and continue lactation support activities in their own hospital upon completion of the Center course.

Up to four participants per hospital will be selected , including wherever possible a pediatrician, obstetrician, neonatal or pediatric nurse, midwife or nutritionist and a "administrator" for a short motivational visit. It will be necessary for a full multidisciplinary team of participants to be selected from one hospital before they will be scheduled to attend a Center course. (give rationale.....)

H. a) Evaluation of the main goal:

To increase in 30 % (? maybe 20 % more realistic) exclusive breastfeeding practices among mothers with children at 3 month of age. We will evaluate this through administering the same precoded standard questionnaire as used in the baseline survey 10-12 months after conducting breastfeeding promoting activities

b) Evaluation of the Objectives

1.-To train a total of 56 teams in a three year period.

2.-Pre and post test of all participants on their knowledge, attitudes and practices concerning lactation management, expecting an average of 30 % of improvement.

3.-Daily session evaluation (including theme, content and speaker) by participants.

4-Overall course evaluation (dynamic, logistic, goal fulfillment, etc.) by participants and staff members.

5-To distribute educational materials (including teaching slides in spanish, a booklet, and a flipchart consisting of a set of ten messages) to 100 % of the teams trained under the Center.

6-Breastfeeding promotion ativities in 70% of the trained hospitals that do not presently have breastfeeding activities (such as establishing rooming-in or educational activities for mothers), through comparing the hospital profile before and after the course and follow -up. Criteria will be determined for this evaluation.

7.-Local replica courses or seminars in 70 % of the trained hospitals by periodic follow-up reports.

8.-Each team should reach an estimate of 150 to 250 health professionals and non professionals through activities above mentioned.

9.-We will give a refresher course to 60 % of the teams.

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NATIONAL CENTER FOR TRAINING AND RESEARCH IN LACTATION MANAGEMENT:

TRAINING MULTIDISCIPLINARY HOSPITAL PERSONNEL IN LACTATION MANAGEMENT TO PROMOTE EXCLUSIVE BREASTFEEDING

LIMA - PERU

A Proposal from:

UNIVERSIDAD PERUANA CAYETANO HEREDIA
Department of Pediatrics
Center for Research & Training in Diarrheal Diseases in Children

March 30, 1990

Director of the Project:

Laura C. Altobelli, Dr.P.H., M.P.H.

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PROPOSED PROGRAM

TRAINING MULTIDISCIPLINARY HOSPITAL PERSONNEL IN LACTATION MANAGEMENT TO PROMOTE EXCLUSIVE BREASTFEEDING

LIMA - PERU

I. SUMMARY

This training program builds on the results and experiences obtained from the demonstration research project entitled, "A Controlled Trial to Extend the Duration of Exclusive Breastfeeding Among Low-Income Mothers in Lima, Peru", referred to here as the Peru Breastfeeding Project (PBP). That research is a cooperative project between The Johns Hopkins University (JHU) and the Cayetano Heredia University (UPCH). It is funded by The Population Council from the USAID/W Office of Population, Division of Research. The principal investigator is Dr. L.C. Altobelli (JHU), and the co-principal investigators are Drs. N. Baiocchi (UPCH) and E. Larson (JHU). On the basis of the achievements of that project, the investigators, advisors, and training staff have proposed the establishment of the **National Center for Training and Research in** Lactation Management, affiliated with the Center for Research & Training in Diarrheal Diseases for Children of the Department of Pediatrics of the UPCH in Lima, Peru, in order to expand the training of health personnel in this subject area on a wider scale. The final goal is to improve infant feeding management, in which exclusive breastfeeding is a key subject.

The proposed program will train multidisciplinary teams of health personnel from hospitals and peripheral health facilities of the Ministry of Health (MOH) and the Peruvian Social Security Institute (IPSS) to become trainers in lactation management, promotion of exclusive breastfeeding, and proper infant feeding supplementation. These multidisciplinary teams will attend an initial intensive training course which is based on the information, materials, and methods obtained and developed during

the demonstration research project mentioned above. Following this training, the Center staff will provide the participants with technical assistance to organize and implement courses for health personnel in their own hospital and peripheral services upon their return home.

Training materials developed for the PBP will be used and modified as necessary, and provided to each participating hospital for use in the replica courses. Promotional materials for education of pregnant and parturient mothers, also developed for the PBP, will be provided as well.

Each course given at the Center will be of two weeks duration, with an emphasis on improving both knowledge and practice. Seven courses will be offered each year with a maximum of 12 participants in each course. Therefore, it is projected that 21 teams from an equal number of hospitals will be trained each year. Each team will reach an estimated 150 to 250 health professionals and non-professionals through replication of the Center course in their home hospitals and peripheral services.

The Center will be staffed initially by a multidisciplinary team of professionals, including an MCH public health researcher/ program administrator, four pediatricians, two obstetricians, a pediatric nurse faculty member, and two nurse specialists in neonatology and child growth and development. Most of the staff will have been trained at the WELLSTART/San Diego Lactation Management Program.

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II: BACKGROUND AND STATEMENT OF PROBLEM

The World Health Organization recognizes exclusive breast feeding for infants up to age four to six months as one of the most important ways to ensure adequate nutritional intake and to confer immunologic protection to reduce the risk of infectious illness in infants (WHO, 1981). Numerous epidemiologic studies conducted in the past two decades, reviewed by Jason and colleagues (1984) and Feacham and Koblinsky (1984), have investigated the relationship between infant feeding practices and infectious diseases. Despite certain methodological shortcomings of many of these studies, the general conclusion is that breastfeeding has an inverse association, and early weaning a positive association, with infant morbidity from diarrhea and, possibly, other infectious diseases.

A recent well-controlled prospective study of 150 low-income mothers and children in Lima, Peru, showed that exclusive breast feeding during the initial months of life and continued breast feeding through at least the first year of life were associated with a substantial reduction in the incidence and prevalence of infections among infants of the study community (Brown et al, 1989). It was also shown, for the first time, that supplementation of breast milk with water and other liquids alone (aside from formula or other milks) was associated with a doubled risk of diarrhea. Although nearly all infants were still breast feeding at one month of age supplementary feeding with liquids and/or other milks began as early as one month in 84% of infants. At one month of age, 48% received breast milk plus water, teas, or infusions but no other milks or solids, and 36% breast milk plus artificial milk with or without other liquids. By three months of age, only about 5% of infants were still exclusively breastfed. These exclusively breastfed infants had the lowest prevalence of diarrheal illness, even though they were more likely than other study infants to come from the least economically well-off families in the study. On the basis of their findings, the authors estimated that an intervention that would motivate universally practiced breast feeding for six months would reduce diarrheal incidence by one third and prevalence by one half in that age group.

The 1984 Peru National Nutrition and Health Survey-ENNSA (Ministry of Health of Peru, 1986), a cross-sectional survey of a representative sample of 18,000 households in Peru, showed that 93% of all mothers interviewed had initiated breastfeeding with their most recent child, and that the average duration of breastfeeding in Peru is 13 months, with a range of 10 months in urban areas to 19 months in rural areas. Therefore, neither the initiation nor the duration of breastfeeding should be of concern in Peru. What is of concern, however, is the very short duration of exclusive breastfeeding and very early supplementation in urban Peru. When contrasted with the prolonged breastfeeding and late introduction of weaning foods (at 10 months on average) in rural Peru, the urban data suggest that infant feeding is closely associated with urbanization and with the greater use of modern health services.

The ENNSA indicates that the prevalence of breastfeeding is negatively associated with hospital delivery, as opposed to home delivery, and is positively associated with older age and lower education of mothers. The findings by Brown and colleagues (1989) in Lima are based on a population that is generally poorly educated and composed primarily of rural-to-urban migrants who might be expected to maintain more traditional ways than many other low-income women in Lima. Their results therefore represent higher rates of breastfeeding prevalence and exclusivity of breastfeeding than are likely to be found in somewhat better-off populations in Lima.

In a recent four-country study on infant feeding practices conducted in four major urban centers of the developing world (Bangkok, Bogota, Nairobi, and Semarang, Indonesia), it was found that initiation of breast feeding does not appear to be a serious problem (Winikoff and Castle, 1986). Instead, the more pressing issue was found to be the decrease in exclusive breastfeeding and, its corollary, shortened duration of breast feeding. That study provided support for the existence of a link between early bottle feeding and unintentional weaning from the breast. The authors suggest that decreasing the prevalence of early bottle feeding may be an important policy issue, since such use of bottles is a volitional practice, presumably amenable to change (Winikoff and Castle, 1986). In all four study sites, the health services sector was found to exert a clear influence on women's decisions regarding infant feeding. The authors recommended that interventions which change pre and postnatal health care practices may have the greatest potential for affecting infant health. Specific recommendations for health service modifications included: (1) rooming in for all mothers when not medically contraindicated, (2) early maternal-infant contact after birth, (3) special help for mothers of sick babies in expressing milk and/or nursing babies, (4) no prelacteal feeds, (5) discontinuation of free formula samples and bottles in maternity hospitals, (6) discontinuation of low price formula outlets, and (7) better education for health professionals (including doctors, nurses, and trained midwives (Winikoff and Castle, 1986).

A number of hospital-based breastfeeding intervention studies carried out in developed and several developing countries have suggested a positive effect of training hospital personnel on increasing the incidence and duration of breastfeeding (Winikoff and Baer, 1980; Winikoff, Myers, Laukaran and Stone, 1987; Huffman and Combest, 1988).

The Peru Breastfeeding Project (PBP) was one of the first controlled studies aimed to demonstrate the effect of training hospital personnel in lactation management on increasing the proportion of mothers, among those who deliver at hospitals, who are exclusively breastfeeding at three months postpartum. Baseline studies from the PBP show that without special training or education in lactation management, hospital personnel have many erroneous ideas and information on the subject, which in many instances correlate with erroneous beliefs and practices of new

mothers. For example, health personnel who were interviewed before the training intervention reported that they recommend to mothers the introduction of water to the infant's diet at, on average, less than four weeks of age. According to the results of interviews with mothers on postpartum wards, over 96% said they planned to give water to their infant: 64% said they planned to do so before the child was one month old and nearly 50% planned to do so in the child's first week of life. Preliminary analysis of the post-intervention follow-up data on mothers suggests that there are differences in the proportion of postpartum mothers planning to give water to their child and differences in the duration of exclusive breastfeeding, comparing mothers delivering at the intervention and control hospitals (Altobelli et al, 1990).

Seventy-four percent of women ages 12-49 from low-income areas of Lima interviewed for the ENNSA reported having their most recent birth attended in public hospitals, and 86% had at least one prenatal visit (Ministry of Health of Peru, 1986). These relatively high proportions suggest that a significant number of low-income urban mothers in Peru can be reached directly through hospital personnel educational activities related to infant feeding.

III. PREVIOUS WORK COMPLETED IN THIS AREA

The Peru Breastfeeding Project (PBP), entitled more specifically, "A Controlled Trial to Extend the Duration of Exclusive Breastfeeding Among Low-Income Mothers in Lima, Peru", is a demonstration research project being conducted jointly between The Johns Hopkins University and the Cayetano Heredia University (UPCH). The project aims to show the positive effect of training multidisciplinary hospital personnel in lactation management and promotion of exclusive breastfeeding on improving mothers' infant feeding practices in the first three months of life, with the specific goal of prolonging the time before introduction of water, teas and other milks, and the final objective of reducing the incidence and prevalence of diarrheal disease. The project has comprised three phases:

Phase 1. <u>Baseline Data</u> was collected during September to December, 1988, and included the following studies:

a) a rapid ethnographic survey of 80 mothers with young children living in four districts of Lima served by three study hospitals;
b) a self-administered KAP survey of 323 health personnel working in pediatrics, neonatology, and obstetrical inpatient and outpatient services in three study hospitals;
c) an interview survey of 308 mothers on postpartum wards in three study hospitals;
d) review of hospital policies and procedures in three study hospitals.

Phase 2. Intervention. This included: a) lactation management training for multi-disciplinary hospital personnel who work with pregnant and parturient mothers, and b) production and distribution of educational materials on lactation management, based on baseline data collected in Phase 1.

A specially selected team from UPCH received a two-and-a-half week course in lactation management at the WELLSTART/ San Diego Lactation Program in January of 1989. Members of this team included a pediatrician, an obstetrician, a baccalaureate nursing school faculty member, a clinical nurse in charge of a well-baby growth and development clinic, and the project director. This team subsequently conducted training for health personnel in Lima at the Cayetano Heredia Hospital and the Dos de Mayo Hospital. A third study hospital did not receive the intervention, serving as a control. A set of three types of training and educational materials on lactation management to accompany the training intervention were produced through close collaboration of the JHU-UPCH researchers with the Academy for Educational Development (AED) Nutrition Communication Project. These materials are described in Section V.

Phase 3. Evaluation of the Intervention - A prospective study, now in progress, involves recruitment of mothers on postpartum wards in three study hospitals with follow-up home visits at 2, 4, 8, and 12 weeks postpartum to measure type of infant feeding provided, sources of advice and information on infant feeding, morbidity and health service use for both child and mother, and infant growth. This phase will be completed by April, 1990, to be followed by a period of data analysis and final report preparation.

IV. OBJECTIVES

A. General Objectives of the National Center for Training and Research in Lactation Management

The training program will be the major activity of the National Center for Training and Research in Lactation Management. The Center has four basic goals, with emphasis on training:

1) To provide an in-service education program in lactation management for public sector health personnel who work directly with pregnant and parturient mothers, on a national and potentially a regional basis.

2) To distribute educational materials (already developed and tested under the PBP) to health personnel and health facilities for use in education of pregnant and parturient mothers, and to modify and retest educational materials as necessary.

3) To provide continuing education in lactation management to personnel trained under the project through periodic mailings of recently published material and/or periodic publication by the Center of a lactation newsletter for mailing to all course graduates and other interested parties and institutions.

4) To promote and conduct further research on the effect of a national training program for health personnel in lactation management, on the best methods for training health personnel in lactation management and promotion of exclusive breastfeeding, and on other epidemiologic, ethnographic, and clinical studies on breastfeeding management in health facilities and in the home.

B. SPECIFIC TRAINING PROGRAM OBJECTIVES

Specific objectives for each year of the training program are the following:

1) To train multidisciplinary teams of health personnel from hospitals of the Ministry of Health (MOH) and Peruvian Social Security Institute (IPSS) to be trainers in lactation management, promotion of exclusive breastfeeding, and proper infant supplementation.

2) To provide technical assistance to these multidisciplinary teams to be trained at the Center to organize and implement training courses for health personnel in their own hospitals and peripheral health services, and to establish their own permanent lactation management programs.

3) To modify and improve the teaching materials and educational materials developed for the PBP.

4) To distribute the teaching and educational materials developed for the PBP to each participating hospital to support the replica courses and local lactation management programs (see Section V.).

5) To periodically publish and distribute a continuing education newsletter on lactation management to Center graduates and other interested parties and institutions.

V. TEACHING MATERIALS AVAILABLE TO SUPPORT LACTATION MANAGEMENT TRAINING AT THE CENTER AT UPCH

The following materials were developed for the educational intervention tested under the demonstration research project entitled, "A Controlled Trial to Extend the Duration of Exclusive Breastfeeding Among Low-Income Mothers in Lima, Peru" (PBP). These will be reviewed, updated, and modified as necessary for use in the Center training program:

- Learning objectives and bibliographic references on 17 separate topics for health personnel on lacation management (see Annex A).
- A set of teaching slides in Spanish for each of 17 topics, with a total of over 600 slides (most adapted/translated from WELLSTART slides plus baseline data from KAP studies on lactation from the PBP).
- A 36-page booklet entitled, Lactancia Materna: Guia para Personal de Salud (adapted and produced for the PBP by

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AED/UPCH/Population Council: the adaptation was based on an original version in English produced for a project in New York City by The Population Council and PATH).

- A flipchart consisting of a set of 10 color images on 45 x 35 cm plastic-covered cardboard for education of pregnant and parturient mothers (produced for the PBP by AED/UPCH/Population Council).
- A 3-color take-home poster/calendar for 1989 and 1990 for mothers, with a central photograph of a breastfeeding mother and baby, and small reproductions of each of the ten educational images and messages used in the flipchart (produced for the PBP by AED/UPCH/Population Council).

VI. METHODOLOGY

A. Organization of the Training Program

The Center will prepare multidisciplinary teams of trainers in lactation management. Seven courses of two-weeks duration will be offered each year with a maximum of 12 participants in each course. It is projected that 21 teams from an equal number of public hospitals will be trained each year.

B. Hospital and Participant Selection

The Center Board of Directors will identify the hospitals to be invited to participate in the program, in collaboration with the stated priorities of the Peruvian MOH. Invitations to participate will be sent the hospitals previously identified by the Board of Directors. For the first year of the program, an attempt will be made to identify two thirds of the participating hospitals from outside of Lima, and one-third from Lima. Preference will be given to major hospitals outside of Lima and to hospitals in Lima with an active obstetrical service of approximately 250 or more deliveries a month. An attempt will be made to identify hospitals where the Hospital Director is enthusiastic about and willing to support a lactation management program in his hospital.

Participants will be carefully selected from chosen hospitals through an application process. Individual applications will be solicited from identified hospitals. The applications will be received and assessed by the Center Board of Directors, which will determine the selection criteria and make the final selection of participants. Formal individual invitations will be made to participants in the form of a training scholarship. Selection will be partially based on evidence of motivation to actively participate as a member of a multidisciplinary training team to conduct lactation management training and continue lactation support activities in their own hospital upon completion of the Center course.

Up to four participants per hospital will be selected, including wherever possible a pediatrician, obstetrician, pediatric

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or obstetrical nurse, and midwife. It will be necessary for a full multidisciplinary team of participants to be selected from one hospital before they will be scheduled to attend a Center course.

C. Didactic and Clinical Training

The training program will consist of lectures, participatory learning exercises, and clinical practice, including:

1) at least 17 different topics presented in a classroom setting (see Annex A);
2) clinical observation in the postpartum ward, neonatology unit, and pediatric outpatient clinic of the Cayetano Heredia Hospital and Guillermo Almenara Hospital;
3) clinical observation of private lactation management visits of postpartum mothers with Center instructors;
4) self-instructional learning with written modules and slides (Betsy Preast);
5) review and guided discussion of video tapes on lactation management;
6) group exercises and presentations;
7) role-playing of case studies with discussion;
8) practice using the PBP flipchart with mothers;
9) reading assignments from books and reference articles; and
10) self-study.

D. Replica Courses

Each team of trainers will be expected to conduct training and organize service programs in lactation management in their own hospitals and peripheral health facilities upon completion of the Center course.

During the Center course, teams will plan a lactation management program for their own hospital and peripheral health facilities, with assistance from Center staff. Each team will present its plan to the entire training group and Center staff at the end of the training course.

The Center will provide training materials to each team to take home, including teaching slides, class outlines, and reprints of published articles.

Following the course, each team will be visited by Center staff to assist with planning, organizing, and implementing the replica course in their own hospital and peripheral health facilities. Each team will reach an estimated 150-250 health professionals and non-professionals through replication of the Center course.

E. Distribution of Educational Materials

Each participant will receive a set of materials to be used during the basic course provided by the Center.

Each team of trainers will receive a supply of the AED/UPCH/Population Council Breastfeeding Materials to distribute

to personnel in their own hospitals and peripheral services. These materials include the breastfeeding guide for health personnel (Lactancia Materna: Guia para Personal de Salud), flipchart on lactation for education of mothers, and poster/calendars for distribution to mothers.

Continuing education in lactation management will be provided via periodic mailings of recently published material and/or periodic publication by the **Center** of a lactation management newsletter, as mention above.

F. Modification and Improvement of Educational Materials

It is proposed that the Academy for Educational Development continue its support to lactation communication activities in Peru through continued collaboration with the **Center** to retest and modify, if necessary, the series of 10 images on the breastfeeding flipchart, to review the text of the breastfeeding guide for health personnel, and to make the necessary concomitant changes in the breastfeeding poster/calendar.

Development of other new materials and communication strategies in collaboration between AED and the **Center** is desirable, and depends on availability of funding.

G. Evaluation

1) Pre- and posttest of all course participants on their knowledge, attitudes, and practices (KAP) concerning lactation management;

2) Pre- and post-course reports of breastfeeding promotion and hospital practices in each hospital represented in the training courses;

3) Numbers of health personnel trained in hospitals and peripheral services by the Center-prepared training teams.

VII. CENTER STAFF

The core staff of the **Center** will be a multidisciplinary team of professionals, reflecting a philosophy of the team approach to lactation promotion and management. The team will include an MCH public health researcher/program administrator, four pediatricians, two obstetricians, a pediatric nurse faculty member, and two nurse specialists in neonatology and child growth and development. Most of the staff will have been trained at the WELLSTART/San Diego Lactation Management Program.

Dr. Laura C. Altobelli is principal investigator and director of the Peru Breastfeeding Project, and is currently a consultant to The Population Council, residing permanently in Lima. She is an R.N. with an M.P.H. in International Health and a Dr.P.H. in Maternal and Child Health from The Johns Hopkins University School of Hygiene and Public Health, and has worked in public health

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programs in Latin America and East Africa since 1974. She received training at WELLSTART in 1/89.

Dr. Nelly Baiocchi-Ureta is a physician with residency training in pediatrics at the Cayetano Heredia University, with an M.S. degree in Nutrition from the Catholic University of Chile. She is currently staff physician in the Rehydration Unit and pediatric outpatient clinic at the Cayetano Heredia Hospital and Assistant Professor in the Department of Pediatrics of the Cayetano Heredia University. She was a co-principal investigator of the PBP. Dr. Baiocchi received training at WELLSTART in 1/89.

Dr. Luis Caravedo-Reyes is a physician with pediatric residency training from the Cayetano Heredia University. He is a staff physician in the Neonatology Service and the pediatric outpatient clinic at the Cayetano Heredia Hospital, and Associate Professor in the Department of Pediatrics of the Cayetano Heredia University. Dr. Caravedo has conducted a study of the growth of exclusively breastfed infants from 0 to 6 months of age in Lima, Peru. He is also responsible for the establishment in 1978 of the rooming-in program in the Maternity Service at the Cayetano Heredia Hospital, the first of its kind in Peru, and has been a leader in breast-feeding promotion in Peru during the past decade. He was a technical advisor and adjunct instructor for the PBP training intervention.

Dr. Carmen Gonzalez-Falla is a physician with residency training in obstetrics and gynecology at the Cayetano Heredia University Hospital. She is a staff physician in the Department of Obstetrics and Gynecology at the Cayetano Heredia Hospital, and is Assistant Professor in the Academic Dept. of Ob/Gyn of UPCH. Dr. Gonzalez will receive training at WELLSTART in 4/90.

Ms. Norma Munico is a nurse faculty member at the "Arzobispo Loayza" National School of Nursing. She was a member of the original training team for the PBP training intervention, and served as a field supervisor for Phase 3 of the PBP. Ms. Munico received training at WELLSTART in 1/89.

Ms. Adriana Salas is the Head Nurse of the Neonatology Service at Cayetano Heredia Hospital, where she is in charge of the rooming-in program. She is a parttime clinical instructor for several schools of nursing in Lima, and her baccalaureate thesis was on breast-feeding. Ms. Salas was a field supervisor for Phase 3 of the PBP. She will receive WELLSTART training in 4/90.

Dr. Eduardo Salazar-Lindo is a physician with his pediatric residency completed at the Cayetano Heredia University. He is Chief of the Emergency Service and of the Rehydration Unit at the Cayetano Heredia Hospital, and is Associate Professor in the Department of Pediatrics of the Cayetano Heredia University. Dr. Salazar is Director of the WHO-Designated Center for Research on

Diarrheal Diseases at the Cayetano Heredia University. He is also Director of PROCAME (Program for Training Physicians and Nurses), a USAID-funded training project for preparation of teams of public hospital personnel in rehydration therapy and clinical management of diarrhea. He was the general advisor for the PBP.

Dr. Pedro Saona is a physician with residency training in obstetrics and gynecology at the Cayetano Heredia University Hospital. He is a staff physician in the Department of Obstetrics and Gynecology at the Cayetano Heredia Hospital. Dr. Saona was a member of the original training team for the PBP training intervention, having received training at WELLSTART in 1/89.

Ms. Vilma Suarez-Giga is a nurse specialized in child growth and development, who runs the Well-Baby Growth and Development Clinic in the pediatric outpatient department at the Cayetano Heredia Hospital. She is an adjunct teacher and frequently invited lecturer for several schools of nursing in Lima. She was a member of the original training team for the PBP training intervention, and served as a field supervisor for Phase 3 of the PBP. Ms. Suarez received training at WELLSTART in 1/89.

Dr. Sarah Vega-Sanchez is a physician with a pediatric residency completed at the Cayetano Heredia University, and specialty training in neonatology completed in Mexico. She is currently staff neonatologist at the Almenara Hospital of the Peruvian Institute of Social Security, where she has been instrumental in the establishment and continuation of a rooming-in program since 1980 and currently runs a lactation clinic for new mothers with special emphasis on breastfeeding for prematures and multiple births. Dr. Vega has carried out several small studies on breastfeeding, including a KAP survey of health personnel and an evaluation of an educational intervention for mothers in promotion of exclusive breastfeeding. She has organized two seminars on breastfeeding in Lima in conjunction with UNICEF, GTZ, and local institutions, and collaborated as an adjunct instructor for the PBP training intervention. She will receive training at WELLSTART in 4/90.

VIII. ADMINISTRATIVE ORGANIZATION OF THE CENTER

The Center will be administratively responsible to the Center for Training & Research in Diarrheal Diseases, which is under the direction of Dr. Eduardo Salazar-Lindo, within the Department of Pediatrics of UPCH.

The Center will have a Board of Directors, which will include the Center Director, Co-director, Medical Director, and two associate experts. The Board of Directors will meet at least once a month to discuss issues related to curricular content and training methods, hospital selection, participant selection, Center-sponsored research and evaluation related to the training

program, and other agenda items suggested by Board members. The Board of Directors will make recommendations to the Director on these issues.

An Expanded Board of Directors will meet at least once a year and will include, in addition to the above Board members, one representative from UPCH and one from the Ministry of Health. The Expanded Board of Directors will review and make recommendations to the Director regarding the overall objectives, methods, financing, and functioning of the Center.

In the absence of a consensus of the Board of Directors, final decisions will be made by the Director. Final decisions concerning technical issues of curriculum content and clinical training activities will be made by the Medical Director with the Center Director.

Training activities of the Center will be conducted by a multidisciplinary team of instructors who will be contracted as needed for specific training or supervisory activities. This team will consist primarily of Cayetano Heredia University and Hospital personnel who have received training at WELLSTART.

An editorial assistant will be responsible for the organization and production of the bimonthly newsletter, under the joint direction of the Director and Medical Director.

Administrative support staff (accountant, secretary, and logistics assistant) will also be required.

IX. INSTITUTIONAL AFFILIATIONS PROPOSED TO SUPPORT THE CENTER

Support for training activities is being solicited from funds available for child survival activities in Peru through USAID/Lima and from USAID/Washington.

Continued linkages with the WELLSTART/San Diego Lactation Management Program are being sought. WELLSTART will be requested to provide technical assistance to set up the Center in Lima, to provide some basic equipment for the Center, to continue provision of recently published technical reference materials on lactation, and to provide continued specialized training and technical support in lactation management for the training team of the Center.

Support for research through the Center will be solicited from USAID/Lima and AID/W, for operations research on training methods, and from the Population Council for other operations research related to exclusive breastfeeding. The World Health Organization Diarrheal Diseases Research Programme has already expressed interest in supporting evaluative research on the effect of the national training program in lactation management, and for smaller clinical and epidemiological research projects on breastfeeding.

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REFERENCES

Altobelli, L.C., et al. (1990) Unpublished data.

Brown, K.H., R.E. Black, G. Lopez de Romana and H. Creed (1989) "Infant feeding practices and their relationship with diarrheal and other diseases in Huascar (Lima), Peru", Pediatrics 83(1): 31-40.

Feacham, R.G. and M.A. Koblinsky (1984) "Interventions for the control of diarrhoeal diseases among young children: promotion of breast- feeding", Bulletin of the World Health Organization 62: 271-291.

Huffman, S.L. and C. Combest (1988) "Promotion of breastfeeding: Yes, it works!". Paper prepared for the Workshop on Improving Infant Feeding Practices to Prevent Diarrhea or Reduce Its Severity: Research Issues. Sponsored by the World Health Organization and The Johns Hopkins University School of Hygiene and Public Health. April 25-28, 1988, Baltimore, Maryland.

Jason, J.M., P. Nieburg, J.S. Marks (1984) "Mortality and infectious disease associated with infant-feeding practices in developing countries" Pediatrics (Suppl) 74: 702-727.

Ministry of Health of Peru and National Institute of Statistics (1986) Encuesta Nacional de Nutricion y Salud: Informe Preliminar. Lima, Peru: INE.

Popkin, P.P., T. Lasky, J. Litvin, D. Spicer and M.E. Yamamoto (1986) The Infant-Feeding Triad: Infant, Mother, and Household. New York: Gordon and Breach Science Publishers.

Winikoff, B. and E.C. Baer (1980) "The obstetrician's opportunity: Translating 'breast is best' from theory into practice", American Journal of Obstetrics and Gynecology 138(1): 105-117.

Winikoff, B. and M.A. Castle (1986) "The Infant Feeding Study: results and recommendations", Prepared for the UNICEF/WHO Consultation on Infant and Young Child Nutrition, June 9-11, 1986.

Winikoff, B., D. Myers, V.H. Laukaran and R. Stone (1987) "Overcoming obstacles to breast-feeding in a large municipal hospital: applications of lessons learned", Pediatrics 80(3): 423-433.

W.H.O. (1981) Report of the WHO Collaborative Study on Breast-Feeding: Contemporary Patterns of Breast-Feeding. Geneva: World Health Organization.

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ANNEX A

SESSION TOPICS FOR UPCH COURSE

ON EXCLUSIVE BREASTFEEDING AND LACTATION MANAGEMENT

FOR HOSPITAL PERSONNEL

1. Lactation and Child Survival
2. Epidemiology of Exclusive Breastfeeding
3. Anatomy and Physiology of Human Lactation
4. Success in Lactation Management - I
5. Success in Lactation Management - II
6. Contraindications to Lactation
7. Drugs and Lactation
8. Contraception and Lactation
9. Maternal Nutrition and Lactation
10. Hospital Procedures and Ministry of Health Norms Related to Lactation
11. Infant Nutrition and Weaning
12. Poor Infant Weight Gain
13. Prematurity and Lactation
14. Neonatal Jaundice and Lactation
15. Induction of Lactation and Relactation
16. Education of Mothers on Exclusive Breastfeeding
17. Socio-Cultural Aspects of Lactation in Peru

APPENDIX 9

Brazilian Program Plans

P R O Y E C T O

D E S A R R O L L O D E U N

C E N T R O D E E N T R E N A M I E N T O

E N L A C T A N C I A

keiko m. teruya

sergio c. kabbach

sueli s. domingos

tereza s. toma

SAN DIEGO, MAYO DE 1990

A G R A D E C I M I E N T O S

Ann Brownlee por el apoyo en la elaboracion

Francisco Revollo Prado por el apoyo en la traducion

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MUITO OBRIGADO

I - INTRODUCCION

El amamantamiento tiene un papel fundamental en la disminuicion de la morbilidad y mortalidad infantil y desde la decada de los 70 muchas investigaciones han sido desarrolladas con el objetivo de ofrecer subsidio para una lucha por la suya implementacion . Muchos programas de incentivo a la amamantacion fueran desarrollados a nivel mundial y hoy se pueden observar algunos resultados beneficiosos de esto.

En el Brasil empezo un programa de incentivo a la lactancia en 1981, muy amplio, hacendolo a traves de los medios de comunicacion masiva, entrenamiento de profesionales de la salud, elaboracion de materiales educativos, legislacion sobre licencia maternidad, criacion de guarderias y regulacion de la propraganda de alimentos infantiles.

Una evaluacion realizada en 1987, con apoyo de la UNICEF, en Sao Paulo y Recife, muestra una grande recuperacion en las tasas de inicio y duracion de la lactancia en estas ciudades, cuando comparado con el baseline de 1981. De la misma forma, despues del Programa Nacional de Incentivo al Amamantamiento (PNIAM), ocurrio un aumento en el nivel de conocimiento de los profesionales medicos y de enfermeria que trabajan en el area materno infantil Mientras no resulto en un grande cambio en las practicas y actitudes de los mismos. Ocurrio tambien un gran avanzo en la legislacion para la proteccion de la lactancia en las mujeres trabajadoras. Desde diciembre de 1988 tenemos una norma que regulamienta las propagandas de alimentos infantiles.

Por lo tanto, ya existen nuestro pais algunas condiciones mucho importantes para que se alcance una mayor recuperacion de la lactancia.

Nosostros creemos que se hace fundamental la continuidad de la educaccion de los profesionales de la salud para no perder el investimiento realizado en los ultimos anos.

II - ANTECEDENTES HISTORICOS

El Instituto de Saude es una instituicion que pertenece a la Secretaria del Gobierno del Estado de Sao Paulo y desarrolla investigaciones en salud publica. Una de sus areas de interes es la salud materno infantil con enfasis en la lactancia. Desde 1981 viene desarrollando investigaciones en esta area, habiendo participado de la evaluacion del PNIAM en 1987.

Esta evaluacion proporciono datos para que si solicitase a la O.M.S. una financiacion para un proyecto de desarrollo de un Centro de Entrenamiento en Lactancia, donde los profesionales de la salud con nivel universitario pudiesen mejorar su practica y manejo de los problemas mas comunes de la lactancia.

Despues de la aprovacion de la O.M.S. se busco una instituicion, donde el proyecto pudiese desarrollarse de una forma solida y sin riesgos de perder la continuidad. La instituicion seleccionada fue el Hospital Guilherme Alvaro de Santos.

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SANTOS

En 1973, atendiendo a los intereses del Gobierno de Santos,en el campo de la salud, nos fue solicitada una encuesta de los ninos desnutridos entre la edad de 0 a 6 anos, en una region de la pro blacion pobre. El Gobierno se proponia realizar en ese ano, un programa enfocando toda la problematica del desnutrido, segun criterios definidos y establecer modelo de atencion a traves de un equipo multidiciplinario.

Partindo de una muestra de 600 ninos, de 0 a 6 anos, inscritos en una clinica local(Posto de Assistencia I). Verificamos que en tre 164 ninos desnutridos, 127 (75%) eran lactantes, de los quales 94 tenian menos de un ano de edad. Llamo la atencion que so lamente el 7(7.45%) eran amamantados al pecho.

La situacion constatada indicaba la necesidad urgente de un pro grama de carater eminentemente practico. Durante el periodo de 1973 a 1977 se procuraran identificar las causas basicas del des tete precos y paralelamente promover de manera empirica la lactancia materna, contando con este mismo equipo.

La encuesta realizada en 1975, mostro : lactantes menores de un ano en un total de 223, siendo que 186(83.4%) eran amamantados al pecho y solamente 37(16.6%) en biberon, confirmando las pre misas:

1 - que el amamantamiento es practica en abandono,

2 - que las propriedades de la leche materna fueran redescobiertas en los ultimos anos,

3 - que la influencia del destete precos en la morbilidad y mortalidad infantil en el mundo en desarrollo es hoy ampliamente re

conocida,

4 - que dificilmente nosostros, los pediatras, tenemos las posibilidades de mejorar otras causas de morbimortalidad tales como: mala distribuicion del ingreso, falta de educacion de la poblacion, saneamiento basico, etc.,

5 - que hay opiniones unanimes tanto en la clase medica como en el pueblo a favor del amamantamiento,

6 - que existe una desinformacion de los medicos y paramedicos en cuanto a los problemas de amamantamiento.

Sentimos la necesidad de modificar el comportamiento de las mujeres en edad fertil, a traves de un trabajo conciente de estimulo y amparo de las madres jovenes. Este trabajo se esta realizando continuamente con estudiantes y residentes concientizandolos, ya que la amamantacion natural, dejo de ser un instinto para transformarse un arte que necesita ser ensenado y aprendido tanto por las madres como por el personal medico y paramedico que cuida de dicha poblacion.

De esta manera, a partir de 1976 iniciamos un programa par incentivar el amamantamiento en Hospital Guilherme Alvaro - Sevicio del Prof. Dr. Jayme Murahovschi, Departamiento de Pediatria de la Facultad de Ciencias Medicas de Santos.- Sin pretender ser rigurosamente cientifico viene siendo perfeccionado progresivamente a traves de las acciones en el control prenatal, alojamiento conjunto en maternidad y clinica de promocion a la lactancia materna atendido por personal sensibilizado y experimentado en relacion a los problemas que comprometen la lactancia y es supervisado por dos profesores, diez residentes y treinta estudiantes de pediatria.

CA

Existe un personal dedicado exclusivamente a la promocion de la lactancia materna compuesto por tres profesores de Pediatria en el area de alojamiento conjunto, dos profesores de Pediatria en la clinica de promocion de lactancia, un obstetra en la clinica de prenatal y una enfermera apoyando la clinica de promocion de lactancia.

III - META Y OBJETIVOS

Meta:

Fundacion de un Centro de Entrenamiento de Lactancia

Objetivos:

En diez y ocho meses el programa hara:

1. Educar equipos de medicos, enfermeras, nutricionistas, servicio social y psicologos como especialistas en lactancia, preparados para ofrecer cuidados medicos para la pareja lactante promoviendo el amamantamiento exclusivo seis meses.
2. Asistir a los equipos en seleccionar o desarrollar materiales educativos apropiados para su propio programa.
3. Apoyar por lo menos al 70% de los equipos en desarrollar un programa ejemplar de servicio y ensenanza par a sus propias necesidades.
4. Hacer las modificaciones de las rutinas que dificultan la promocion de la lactancia materna exclusiva por espacio de seis meses.

5. Apoyar por lo menos a 70% de los equipos en disenar actividades educativas y de actualizacion en la lactancia para sus colegas medicos por lo menos un curso durante el ano.

IV - METODOLOGIA

1. Reclutamiento y Seleccion

El programa del Centro de Entrenamiento de Lactancia sera desarrollado para el entrenamiento de equipos multidiciplinarios de nivel universitario de los servicios publicos de salud. Los mienbros del equipo deberan incluir, preferiblemente, un pediatra , un obstetraa, una enfermera, una nutricionista, una psicologa, una asistenta social y administradores. El recutamiento y seleccion seran basados tanto en la identificacion de una instituicion adecuada como de los miembros indicados para el equipo.

2. Entrenamiento

Equipos de tres a cinco instituiciones (diez y ocho a vinte personas) iran a Santos para un curso de dos a tres semanas de duracion. Este curso debera incluir una combinacion de instrucciones convencionales, discusiones en clase, dinamica de grupo, experiencias clinicas y tareas.

3. Desarrollo de Proyectos de Intervencion

Los equipos que participan del curso deberan desarrollar planes de accion para cambiar la rutinas de las instituiciones donde trabajan, para que implementen el amamantamiento exclusivo.

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4. Apoyo de Materiales

Durante el curso los equipos podran seleccionar videos, diapositivas y articulos tecnicos de la colecion del Centro de Entrenamiento, para servir de instrumentos de ensenanza y hacer una biblioteca de referencia basica .

5. Asistencia Tecnica Complementeria

Con el objeto de proveer apoyo tecnico, principalmente para la continuidad de la intervencxion de los servicios de salud, los miembros de Centro de Entrenamiento estaran disponibles para cualquier asesoria, incluso poderan realizar visitas a estes sitios se es necesario.

6. Evaluacion de los Cambios que Ocurren en los Equipos y sus Servicios

Los equipos seleccionados deberan hacer una encuesta de base de la situacion de amamantamiento y de las rutinas de sus sevicios o regiones antes del curso, para que se pueda medir los cambios despues de seis meses y un ano del curso. Se solicitaran tambien a los equipos que informen sus actividades a cada tres meses.

7. Evaluacion del Curso y sus Participantes

El curso sera evaluado por los equipos en cuanto a su contenido, cuerpo docente y metodologia didactica utilizada, a traves de una hoja de evaluacion despues de cada actividad. Durante el entrenamiento los individuos estaran siendo evaluados, diariamente en cuanto a la participacion, aprendizaje teorico y habilidades.

V - CONTENIDO DEL CURSO

1. CONOCIMENTOS

A - Fundamentos

- Anatomia y fisiologia de la lactancia
- Aspectos psicosociales del amamantamiento
- Ventajas e desventajas del amamantamiento
- Nutricion infantil y destete
- Problemas y contraindicaciones del amamantamiento

B - Actividade de la clinica

- Cuidado rutinario: prenatal, natal y post-natal
- Nutricion materna e infantil
- Destete

C - Aspectos relacionados con la madre que influyen sobre el exito de la lactancia

- Variaciones anatomicas, cirurgia y patologia de la glandula mamaria
- Temas relativos al parto
- Temas relativos a la lactancia
- Patologias maternas no relacionadas con la lactancia
- Madres adolescentes
- Nacimientos multiples
- Inducion de la lactancia y relactacion
- Separacion madre-hijo
- Madres que trabajan

D - Aspectos relacionados con el nino que influyen sobre el exito de la lactancia

- Disfuncion anatomica y mototra-oral
- Temas relativos al parto
- Hiperbilirrubinemia
- Nino con enfermedad concomitante
- Ninos prematuros
- Malogro en el crescimiento y desarrollo
- Incapacidad neurologica
- Nino renuente a amamantar
- Nino con problemas para amamantar devido a problemas maternos

E - Almacenamento de leche

F - Temas de la comunidad

- Lactancia, amamantamiento y supervivencia infantil
- Tendencia e influencias en la incidencia y duracion

G - Desarrollo del programa

- Diseno y evaluacion
- Papeles y responsabilidades profesionales
- Como efectuar cambios
- Politicas
- Evaluacion institucional
- Planeacion del programa de estudios y estrategias de educacion

2. HABILIDADES

A - Cuidado con

1. Madres

- Examen y cuidado de los senos
- Evaluacion de la adaptacion de los padres
- Evaluacion del estado nutricional y consejos sobre la dieta
- Extracion de la leche con bomba o manualmente

2. Niño

- Historia, examen fisico y evaluacion
- Evaluacion motora-oral

3. Pareja madre-hijo

- Historia y interpretacion
- Medicion antropometrica
- Evaluacion y orientacion de la tecnica de amamantar
- Consejos para la lactancia exitosa
- Orientacion para el destete
- Mantenimiento de la lactancia durante la separacion madre-hijo

B - Consulta telefonica

C - Uso y cuidado del equipo

- bombas
- protectores
- aparatos suplementarios de la lactancia

D - Tecnicas de evaluacion de laboratorios

CRONOGRAMA DE TRABAJO PARA 18 MESES
(CON RECURSOS FINANCIEROS DE LA OMS)

ETAPAS	1990									1991											
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
ENTRENAMIENTO DE 4 PROFESIONALES EN WELLSTART																					
DISCUSION Y TERMINO DE LAS PROPUESTAS DEL PROYECTO CON EL RESTO DEL EQUIPO																					
ORGANIZACION DE LOS CURSOS																					
REALIZACION DE LOS CURSOS					1			2				3			4			5			
EVALUACION DE LOS CURSOS Y SUS PARTICIPANTES																					
EVALUACION DE LOS CAMBIOS EN SERVICIOS DE SALUD											1			2				3			
ELABORACION DE INFORMES A LA INSTITUCION FINANCIADORA																					
SOLICITACION DE OTROS RECURSOS FINANCIEROS																					
INFORME FINAL																					

BREASTFEEDING PROMOTION DURING PRENATAL CARE AND ROOMING-IN

MAIN OBJECTIVE

To promote the practice of exclusive breastfeeding up to six months; and continued nursing, along with other nutrients, from then on to 18 or 24 months. Teaching and training of Medical Students and other Health Staff members on promotion of breastfeeding, knowledge of the most common problems, and their solutions, as well as the advantages and importance of nursing.

WORK PLANNING

- Prenatal care
- The delivery room
- Rooming-in

Prenatal Care

Best results are obtained when the mother, during pregnancy, makes up her mind about breastfeeding. To promote and reinforce that decision, there is a series of five classes which make up the Pregnant Orientation Course.

The first three classes consist of information regarding pregnancy and delivery (given by an Obstetrician) and about psychosocial and nutritional problems (Nutritionist, Psychologist, Social Worker). The course starts on the seventh month of gestation with weekly classes.

The initial 30 minutes of each class consists of an explanation on:

1. Advantages of human milk:

   a. for the baby -- it's an adequate, well balanced, and complete nourishment with hypo-allergenic and antimicrobial properties, that prevents diarrhea, dehydration, and respiratory diseases, warranting better emotional protection.

   b. to the mother -- reduces postpartum bleeding, delays another pregnancy (birth control), strengthens mother/baby bonding, grants psychological satisfaction, and protects against breast cancer.

   c. to the family and the country (society) -- less expensive than bottle feeding, breastfeeding strengthens family bonds from a psychosocial standpoint.

2. Production of breastmilk (slide).

3. Explanation about popular beliefs like: thin "weak" milk, salted milk, breastfeeding beyond the sixth month being harmful to the baby, breastfeeding and menstrual periods, etc.

4. Get the breasts and nipples ready for nursing through exercises that will:

   a. roughen up the gentle skin to prevent sore nipples.

   b. help stick out inverted, flat, or pseudo-inverted nipples.

   c. we teach them to do the following:

      i. cut off the tip of the brassiere's bowl, allowing the clothes to rub the nipples.
      ii. Sun bathe up to 10 a.m. or after 4 p.m. for 15-30 minutes per day.
      iii. Exposure to the heat of a 40 watt bulb, 20 cm away, for up to 20 minutes daily.
      iv. After handwashing, use three fingers to pull out areola and nipple, as much as possible without pain (imitating the baby's suction). Start with three movements twice a day and gradually increase up to 30.

   d. we suggest these exercises to be performed in the morning and at bath time, when changing dresses are necessary.

      i. Hoffmann's exercises (slides) to loosen up inverted nipples.
      ii. to stick out the nipples, use for three hours a day a breast shield made out of a styrofoam hemisphere with a central hole, placed between the breast and a tightly fitting bra.
      iii. some other ways:

         (1) cut off the rubber nipple of an intermediate nursing device (nipple protector) and place the plastic base on the areola, using a tightly fitting bra.

         (2) use a large thimble or nutshell halves the same way.

5. Artificial (rubber) nipples are the greatest enemies of breastfeeding because they lead to important changes on the baby's suction reflex.

When to start breastfeeding?

Ideally, in the delivery room, at the very table, soon after birth. We must promote direct skin contact between mother and baby. During the first hour, we should allow both parents to stay with the baby while he/she is still awake.

It is important to delay the use of topical silver nitrate, otherwise the baby's eyes will remain closed, making it difficult for the family bonding so important at this moment (eye to eye contact).

At the Hospital.

We use the rooming-in system where mother and baby stay together in the same room until discharge. The mother is encouraged to nurse on a free schedule, upon demand, in whatever position she feels more comfortable in: lying down, sitting up, or standing, even if she is having I.V. (intra-venous) medication. At the beginning, the pediatric nurse will help the

mother find her most comfortable position, will show the most appropriate position to start nursing, using the nipple to promote the central area of the baby's lip, introducing as much of the areola as possible into the baby's mouth, taking care that the breast does not press against his/her nose and restrict breathing.

The neonate does not need water or tea or any other nourishment except human milk. The mother will give both breasts on each feeding, always beginning the next feeding at the breast where the last feeding was completed. It's alright if the baby is satisfied with only one breast, but, on the next feeding, start with the other breast.

If the breast is much too engorged, it may be necessary to express milk manually, for the baby may find it difficult to grasp the nipple areola.

Manual extraction is performed this way: grasp breast between thumb (above) and other fingers (below) of opposite hand and press against the chest wall. Make circular movements gently pressing against the areola until milk slows to a few drops. If it becomes necessary to stop nursing, the mother slowly introduces her fifth finger (for finger) into the side of the baby's mouth; he will release the nipple.

In our rooming-in system, the mother will receive breastfeeding information and advice from the nurses, pediatricians, medical students, even the cleaning lady (maid) who is prepared to promote breastfeeding.

6. The mother's hospital stay usually lasts 2-4 days, depending on whether she had normal delivery or Caesarean section (C-section).

Upon discharge, all mothers are referred by nurses and doctors to our breastfeeding promotion out-patient clinic within one week. The mother is trained by the nurses on basic hygienic procedures, on her personal care and is oriented to thorough handwashing before and after caring for her baby.

While teaching and talking to the mother, a nurse may eventually notice a breastfeeding problem. If she is unable to solve it immediately, the nurse will take the problem to the staff meeting. Besides our breastfeeding promotion, we also teach the mother some techniques to care for her baby, like hygiene of the eyes, umbilical cord, diaper changes, baths, etc.

BREASTFEEDING PROMOTION IN THE OUT-PATIENT CLINIC

MAIN OBJECTIVES

The two main objectives of our clinic are:

a. Teaching - to teach our fifth year students and first and second year pediatric residents the practice of well baby and maternal care; to adequately recognize and solve the most common problems related to breastfeeding as well as to emphasize the importance (qualities) of breast milk and the need to promote breastfeeding.

b. Child Care - To provide well baby care to children delivered at the Hospital Guilherme Alvaro, usually patients of lower socioeconomic status, during at least six months, trying to get maternal confidence and their compliance of exclusive breastfeeding during the first six months of the baby's life, and giving advice to breastfeeding-related problems.

ROUTINE

The Clinic days are on Thursday. We see an average of 80-100 mother-baby pairs per day. Thirty students, nine first and second year pediatric residents and 2 preceptors work in each clinic day. Moths are encouraged to have the first clinic visit within one week after discharge from the nursery. They are seen on a first-come/first-serve basis. Weight and length measurements are performed by the pediatric nurse.

Well baby care is delivered directly by students and residents under close supervision of both preceptors. We have a special protocol to be followed which includes a disguised evaluation on breastfeeding. The follow-up program includes a weekly return in the first month, fortnightly on the second and monthly from the third month on. If weaning begins, the baby goes back to weekly re-visits.

By the end of each clinic day, the staff (students, residents and preceptors) will meet and discuss the emerging problems, reaching a uniform approach.

Upon discharge from the nursery, the mother is given the usual; counseling regarding neonatal care by the pediatrician and the pediatric nurse, and is encouraged to return to the clinic within one week.

Slides 3, 4 and 5 show partial view of our outpatient clinic. Some healthy children.

Slide 6 shows an interesting aspect - we understand that to a more completely successful promotion of breastfeeding, it is necessary that all involved speak the same language.

The chain of promotion and reinforcement starts at the entrance when the mother is greeted by the doorwoman who praises the healthy looks of our patients. The cleaning ladies, who speak the same language as the mothers, also participate in the same way. It goes all the way to the owner of the coffee shop used by the mothers. Interestingly enough, the lady owner of the coffee shop was our "number one" enemy. She used to sell mineral water, bottles, even infant formulas, mind you!!!

It has been necessary to have lots of coffee, water and chocolate taken at the coffee shop accompanied by a great deal of talking to persuade her of the real value of breastfeeding. We showed her that our children were healthier due to breastfeeding; that the first bottle was the sure way to wean the baby....After a long indoctrination, she is now a good "breast friend" and has been of great help.

On Thursdays, weight and length measurements are performed by the pediatric nurse. On other week days, this is done by the students. The first breastfeeding evaluation is done by the pediatric nurse, while weighing the baby. Informal questioning and appearance of the stools may suggest a weaning process on the way. The nurse will not make any comment nor will she recriminate the mother, but will write the letter "A" on the weight and length card.

Our gentle approach, we are sure, is much better than aggressive questioning or demanding instructions, like an "inquisition" to adequately promote breastfeeding. We also know our mothers are the last to blame for unsuccessful nursing. Positive reinforcement is our technique, reassuring the mother that she is doing "the right thing."

For quite some time, before the AIDS problem, we used to collect 1-2 liters of breast milk on our clinic days to feed our inpatients. Today we avoid the exchange of breast milk.

On slides 11 and 12 we have some aspects of our large group dynamics. We raise the problems that usually come up at the clinic and have the mothers working them up by themselves. The most common problems are: mothers who work outside, mastitis, sore nipples, inadequate milk supply, birth control while nursing, crying and fuming of the baby, maternal medication, etc. The mediator's intervention is limited to the absolutely necessary teaching. Whenever possible, we ask the grandmothers to explain their own experiences with the same problems. We stimulate the mothers to come up with questions.

The sessions last up to 30 minutes. There is no advantage of longer sessions as mothers get tired and don't learn as much. The efficiency of our teaching program at the clinic is demonstrated when we see a medical student correctly teaching a young mother, when we observe a mother pulling the nipple out of the baby's mouth exactly the same way she was taught, when a mother achieves successful overall learning relactation, when we see twins exclusively breastfed for six months (actually, in 1984, we had six sets of twins within a short period of time). These results show the importance of our consistent and motivational clinic program. Our best reward comes from observing our healthy looking children, from the confidence and serenity we are able to convey to the mothers, so necessary for a successful nursing.

Beyond scientific and professional achievement, this is the best way we found to love our country, our people, our world.

APPENDIX 10

Research Project Proposed by

Dr. Nelly Baiocchi, Advanced Study Fellow

Bacteriological Determination and Clinical Outcome of Feeding Stored Breast Milk Stored at Room Temperature

(research proposal)

Nelly Baiocchi

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Human milk is the best source of nutrition for infants and is generally agreed to be a desirable feeding alternative for newborn babies (1-4). It is well known that an individual's breast milk is specially suited for her own's baby's nutritional and immunological needs. For example, evidence has accumulated that milk obtained from mothers who have delivered premature babies is more appropiate in terms of protein and mineral content (5-8). However, controversies arise with processing, storing, and bacterial contamination of expressed breast milk.

Recent authors agree with the benefits of unheated compared to pasteurized breast milk. Alteration of lymphocytes and antibody content after pasteurization and lyophilization of breast milk has been clearly demonstrated (9). A clinical controlled trial has demonstrated slower weight gain in the group receiving pooled pasteurized milk compared with a group receiving untreated mother's milk. The authors explained that this could be due to pasteurization, which probably destroys heat labile lipase (10). Roberts, et. al., compared bacterial growth in raw and pasteurized human milk and found reduced antimicrobial properties of pasteurized milk and the inhibition of bacterial growth by unheated raw milk, and concluded that unheated, compared with pasteurized, breast milk has bacterial inhibitory properties and that these may protect the neonatal gut against harmful bacterial colonization (11).

There is also concern regarding storage of expressed breast milk. It has been demonstrated that freezing breast milk up to four weeks does not significantly alter its anti-infective and immune components (9).

Different studies have demonstrated that the storage of mature milk at 4°C induces significant changes in the concentration and/or functions of key immunological components (12), lipolytic activity (13), and ascorbic acid concentration, among others (14). It is now recommended that breast milk be maintained refrigerated for no more than 48 hours. However, in terms of bacteriological contamination, Olowe, et. al., in Lagos, Nigeria, demonstrated that expressed breast milk stored in a domestic refrigerator can be given safely to infants within 24 hrs of collection if heavy contamination is prevented at the time of collection (15). Sosa, et. al., in 1987, demonstrated that bacterial counts progressively decreased through-out a 5 day refrigeration period (16). These data reinforce the benefits of raw breast milk in feeding babies; however, bacterial contamination may be a problem if milk is not suckled from the breast. This may constitute a problem especially in infants of working mothers and sick infants admitted to the hospitals.
To date, most of the literature regarding bacterial contamination is related to milk banking and its use for premature or sick babies. There is difficulty in trying to determine a level of bacterial contamination of breast milk considered safe to feed full term newborn babies. Pittard, in his study in 1986, stated that bacterial contamination of breast milk would not increase significantly "up to but not longer than six hours after expression even with no access to refrigeration"(17).

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Agusi,D; et. al., (in 1986), from the University of Nairobi, examined 30 samples of untreated hand expressed breast milk stored at room temperature and in refrigeration at 4°C for the degree of bacterial contamination at 0, 4, 6, and 8 hours. He found that all breast milk was contaminated at 0 hours, mainly with normal flora of the skin and oropharynx (mean of 5.438 x 10^3 colony forming units (CFU)/ml) but he did not find any rise in bacterial colony counts in expressed breast milk (18). Barger and Bull, in 1987, in a similar study showed no statistically significant differences between the bacterial levels of pumped milk stored at room temperature for ten hours and that which had been refrigerated for the same time (19). However, there are no definite guidelines or standards to determine the level of bacterial contamination of breast milk considered safe to feed to full term babies; even though, it could be desirable that it contain as few microorganisms as possible. Some authors used to give raw expressed breast milk only without bacterial growth (20). Williamson (1978) recommended that raw milk should contain a) no pathogens, b) less than 1000 colonies of S. aureus/ml, and c) not more than 2500 CFU/ml of normal skin flora (21). Botsford, et.al., in a retrospective study evaluating quantification and clinical consequences for premature infants found < 1 x 10^3 CFU/ml of potential pathogens acceptable for feeding premture babies (22). Lawrence's guidelines include: a) a total aerobic mesophilic colony count less than 2.5 x 10^6 CFU/ml with a predominance of skin flora, b) a count of staphyloccoci of less than 1 x 10^5 CFU/ml, and c) no enterobacteria (23). All these microbiological guidelines are based on arbitary criteria but no study has determined by a prospective follow-up if milk with these bacterial levels may be safely fed to healthy full term infants.

In developing countries, there is an increasing number of nursing mothers getting employment away from home, which forcibly separates them from their infants for periods of 10-12 hours on any working day. Most of these mothers do not have refrigerators, they also may not know that expressed breast milk could be safely stored at room temperature. Since it is their infants who would benefit greatly from breast milk's properties, we consider it extremely important to determine if, following the above-mentioned bacteriological criteria, raw breast milk stored at room temperature for 10 to 12 hours can be fed to healthy full term infants without adverse effects.

HYPOTHESIS

a) Raw hand-expressed breast milk stored for 10-12 hours at room temperature has bacterial growth not significantly different compared to that which is given at breast or has been refrigerated and b) can safely be fed to healthy full term babies.

Principal Objective

To determine if raw breast milk stored at room temperature for 10 to 12 hours can be fed to healthy full term infants, without adverse effects.

Specific Objectives

1-To determine and compare the bacterial contamination of hand-expressed breast milk at 0, 8, and 10 to 12 hours stored at room temperature and in refrigeration.

2-To determine the incidence of diarrheal and non-diarrheal infections in a 15 day follow-up period,in a group of infants fed breast milk which has been stored at room temperature for up to 10-12 hours..

Response Variables

a) Mean bacterial counts of raw hand-expressed milk at 0, 8, and 10 to 12 hours stored at room temperature and in refrigeration.

b)Diarrheal episodes and non-diarrheal infections in over 15 day follow-up period.

Methodology

The study will be conducted in two stages: 1) Bacteriological determinations of raw breast milk varying by time of expression and temperature storage and 2) Clinical evaluation of infants fed stored milk in 15 days of follow-up.

Stage 1.-Bacteriological Determinations

Patient Selection

We will satudy raw hand-expressed breast milk of healthy mothers that consult to the well child clinic of Cayetano heredia Hospital, using the following inclusion criteria :

-Age: from 20 to 35 years old.

-Nursing age: from 1 to 4 months.

-Nutritional status: normal and mild to moderate malnourished mothers with weight for height more than 70 % of the National Insurance Security standard (24).

Exclusion criteria:

-mothers with evidence of present dermatological illness of the breast (herpes, scabies, etc.)

-mothers with an episode of diarrhea, respiratory or any infectious disease within the previous 6 days.

-Severe malnourished mothers with weight for height less than 70 % of the National Insurance Standard..

-Recent use af antibiotics

The survey will collect information on basic demographic characteristics (maternal age, number of years of formal education, household characteristics, quality of their housing, and current work status).

In order to simulate closer the routine situation, mothers will be trained to do the hand expression procedure at their homes with specific instructions to wash their hands with soap and water (?) prior to

expression, to cleanse their breasts with water, air dry, and to discard the first 5 ml of the expressed milk, as these procedures have been shown to reduce bacterial contamination (24-25).

The breast milk will be collected in two clean recipients at night; one of them will be kept in a box at room temperature and the other refrigerated, to be processed at 8, or 10 to 12 hours after storage. Zero-hour samples will be collected at the out-patient clinic and cultured within 30 minutes. (annex 1)

The sample size for this survey will be based on findings from Agusi's study in which the mean bacteriological count of breast milk at room temperature was $5.795 \times 10^3 \pm 3.5$ SD, expecting a difference of 50 % on the upper end (still within the range of bacteriological contamination acceptable). Setting a Type I error of 0.05 and a power of 90 %,to compare means of a continous variable, the size of the study group should be: (26)

$$n = \frac{2 \times (3.5)^2}{2.9^2} \times 10.5 = 30.5$$

Taking into account 15% of probable losses the number of mothers to recruit will be 35.

If the bacteriological results of this first stage are found to be within Lawrence's guidelines we will proceed with the second clinical stage of the study.

Stage 2. Clinical Evaluation

A sample of mothers and children will be selected for a clinical follow up evaluation over 15 days.

Theinclusion criteria for patient selection will be:

Age of mothers: from 20 to 35 years

Age of nursling: from 1 to 4 months and will have been term and with birth weight more tha 2500 gms

Nutritional Status: normal and mild to moderate malnourished mothers with weight for height more than 70 % of The National Insurance Standard

mothers should be exclusively breastfeeding their babies.

The exclusion criteria will include:

-mothers with evidence of present dermatologic illness of the breast (herpes, scabies, etc).

-Mothers and/or children with a recent history, within the 6 previous days, of diarrhea, respiratory or any infectious disease.

-Severe malnourished mothers with weight for height less than 70 % of .....

-Evidence of any drug ingestion (antibiotics).

Enrollment of subjects.

Informed consent and ethical review: Mothers will be informed about the trial and a written consent will be necessary to participate in the study. The consent form will indicate in simple words the general purpose of the trial, the benefits or any potential known risks to patients and the clinical examinations to be performed.(annex 2).

The project protocol will be submitted to the Ethical Review Committee of our Institution and the written approval will be sent to (name of the institution)..... as soon as possible.

-Assessment of Subject Eligibility for the trial will be made by the principal investigator or two trained research pediatricians. All mothers who fulfill the criteria for entry into the study will be admitted into the trial after a written consent is obtained.

The baseline history will include information on age, address, age of nursling in months, number of years of formal education, household characteristics, the quality of their housing and current work status. A complete physical examination of the baby will be carried out. This will include pulse and respiratory frequency, body temperature, body weight and height and a general clinical examination. During the follow-up visits (twice a week) for a period of 4 weeks, we will collect information on feeding practices, including data on water and herbal teas, formula consumption, the amount and duration of stored breast milk at room temperature ingested and diarrheal and non-diarrheal illnesses.

Standard Case Management

Laboratory determinations will include:

-Milk culture: will be obtained both from the sample stored at room temperature and refrigerated and will be processed in the Microbiology Laboratory of the Cayetano Heredia University. A sterile .001 mililiter calibrated loop will be use to inoculate the surface of a 5% sheep blood agar plate. Plates will be incubated at 35^0C for 24 hours and inspected for growth. Streptococci will be differentiated by serologic

grouping and hemolysis. Staphlococci will be differentiated by coagulase production to determine the presence of Staphlococcus coagulase negative or satphlococcus aureus. The number of CFU (x 1000)/ml of breast milk of each organism on each plate will be determined as well as the total number of CFU. Specimens will be also cultured for Salmonella, Shigella, E.coli (EPEC,EIEC) and vibrios by standard direct and enriched enteric media. Enterotoxigenicity of E.coli isolates will be determined by an immunosorbent assay (ELISA) for both LT and ST toxins. In addition to this, primary isolation of five E. coli-like colonies will be tested for enteropathogenic serotypes according to standard methods using polyvalent sera. For Campylobacter jejuni and Aeromona isolation, microaerophically incubation at 42 ^{o}C on Ampicillin blood agar preceded by overnight enriched peptone water will be made (26,27).

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Mothers and children will be admitted into the trial immediately after signing the consent form. They will be instructed in breast milk hand expression procedures, handwashing and cleansing of the breasts with water and drying, and will be provided with a clean container for the collection of the milk. The mom, if possible, or the researchers will note the time at which the milk was expressed. Mothers should give this milk to the baby 10 to 12 hours after expression, for four consecutive days, pointing out the amount given. Families will be visited twice a week and a questionnaire of the pattern feeding practices and morbidity will be completed (annex 3). If any complication should arise, child will be follow-up and hospitalized in Cayetano heredia hospital.

The estimated sample size and follow-up period is based on the findings of Brown et. al., in a longitudinal study of feeding practices and morbidity in a periurban community in Lima, Peru, in which the incidence rate of diarrheal episodes was 0.002/day.(29)

Expecting a difference of no more than 20 % between groups,considering a Type I error of 0.05 and a power of 80% to compare proportions of dichocotomous variables, the size number for each group should be 33 (30). Taking into account 20 % of probable losses the number of patients to recruit will be 41 per group.

Withdrawls from the study

Withdrawl: if, during the study, a patient is regularly receiving water, herbal teas, or formula, or if they are moving from the area.

Negative outcome: If a child develops diarrheal episodes or dermatologic, respiratory, or other infectious diseases that could be related to bacterial content of the stored milk.

Organization of the Trial

Description facilities : To be determined ....

Study Schedule

Procuring supplies, establishing methods and
developing study materials (data forms,etc) .....2 months
Recruiting and training study personnnel .....1 month
Conducting the first stage trial .....3 months
Analyzing the data and writing up results.. .....1 month

Conducting the second stage trial ..... 9 months
Analyzing the data and writing up results.. .....2 months.

Approximate duration of the study.....18 months.

Personnel requirements:

	% dedication
Principal investigator	25
Research pediatrician (2)	50
Laboratory technician	100
Nurse	30
Secretary	30
Administrative assistance	30
Date entry clerk	10
Consultant	10

After collecting all the study data, it will be analyzed applying appropiate statistical methods, the following variables will be examined:

a)Stage 1-Bacteriological determination

-Demographic and socioeconomic variables will be described.

-Means of bacteriological counts will be compared over time and storage using the T test.

b)Stage II Outcome: we will compare the incidence of diarrheal and non-diarrheal infections in the 15 day follow-up period, to a same number of exclusive breast fed infants using z statistict method.

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CONSENT FORM

We are conducting a study about breast milk and germ contamination. We all know that breast milk is the best food for babies. We would like babies of working mothers to continue receiving her/his mother's milk. We are studying if the milk that moms keep in a recipient is as good as the one the baby receives from the breast. If you agree to participate in the study, we will need a sample of the milk you are expressing at home to study it; your child will be examined and we will visit you two times a week to find out how you and your baby are doing. We will try to visit you at the hours you prefer. Your child would not have any additional risk because of this study. If during the study you have any doubt do not hesitate to ask Drs Nelly Baiocchi and.....from Cayetano Heredia University Hospital about it and.

All the data during the study will be confidential and will be made available only to the investigators and attending physicians.

If you wish, you may refuse to participate. If you are already in the study you may withdraw from the study whenever you want.

If you agree to participate in this study, please note your consent by signing your name below.

Child name.....

Mother or Father name .....

Investigator name .....

Date

...../...../.....

Budget

Personnel

Principal investigator

Dr. N. Baiocchi

Research pediatrician (2)

Consultant

Nurse

Laboratory Technician

fringe benefits (21%)

Secretary

fringe benefits

Adminisstrator

fringe benefits

Operating expenses

Paper and other materials

Photocopies and printing

Computer supplies

Milk cultures (#30/unit)

Glassware

Hospitalization-lab exam (50/pat)

data analysis

Administrative

cost

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1.- Hanson LA, and Winberg J: Breast milk and defence against infection in the newborn. Arch. Dis. Child 47: 845, 1972

2.- Nutrition Committee of the Canadian Paediatric Society and the Committee on Nutrition: Breastfeeding. Pediatr 62: 591, 1978

3.- Clarano, N.R: Mode of feeding and its effect on infant mortality and morbidity. Jour. of Trop. Pediat 28: 287-2 1982

4.- Singhal, P.K., Victora, C.G., et. al. Evidence for protection by breastfeeding against infant deaths from infection diseases in Brazil. Lancet 319-322, Aug 1987.

5.- Atkinson, S.A., Anderson, G.H. and Bryan, M.H. Human milk: Comparison of the nitrogen composition in milk from mothe of premature and full-term infants. The american J. of Clin. Nut, 33 811-815, 1980

6.- Narayanan, I. Prakash, K. and Gujral, V.V. The Value of human milk in the prevention of infection in the high-risk low-birth-weight infant. The Jour. of Ped: 99 No: 496-498, 1981

7.-

8.

9. Liebhaber, M. Alterations of lymphocytes and of antibody content of human milk after processing. Journal of Pediatrics; December 1977; 91(6): 897-900.

10. Stein, H. Pooled pastuerized breast milk and untreated own mother's milk in the feeding of very low birth weight babies: a randomized controlled trial. J Pediatric Gastroenterology and Nutrition; 1986; 5: 242-247.

11. Roberts, S.A. Bacterial growth in raw and pasteurised human milk. British Medical Journal; October 28, 1978; 2: 1196. 5359.

12. Goldblum, R.M. Immunologic outcomes of feeding human milk to very low weight infants. Composition and Physological Properties of Human Milk; 1985: 323-331. 0777

13. Clark .....
J. Ped. Gastro. Nutr 3:567, 1984

14. Garza: .....
Early Human Devel. 6: 295, 1985.

15. Olowe SA; Ahmed I; Lawal SF; Ransome-Kuti S. Bacteriologic quality of raw human milk: effect of storage in a refrigerator. Annals of Tropical Paediatrics, 1987 Dec, 7(4): 233-7.

16. Sosa, R. Bacterial growth in refrigerated human milk. AJDC; 1987; 141: 111-112.
Note: reptmonth.

17. Pittard et al: Bacteriostatic qualities of Human Milk
J of Ped. 107: 240-243, 1985

8.

9. Liebhaber, M. Alterations of lymphocytes and of antibody content of human milk after processing. Journal of Pediatrics; December 1977; 91(6): 897-900.

10. Stein, H. Pooled pastuerized breast milk and untreated own mother's milk in the feeding of very low birth weight babies: a randomized controlled trial. J Pediatric Gastroenterology and Nutrition; 1986; 5: 242-247.

11. Roberts, S.A. Bacterial growth in raw and pasteurised human milk. British Medical Journal; October 28, 1978; 2: 1196. 5359.

12. Goldblum, R.M. Immunologic outcomes of feeding human milk to very low weight infants. Composition and Physological Properties of Human Milk; 1985: 323-331.

13. Clark . . . . . .
J. Ped. Gastro. Nutr 3 :567, 1984

14. Garza : . . . . . .
Early Human Devel. 6 : 295, 1985 .

15. Olowe SA; Ahmed I; Lawal SF; Ransome-Kuti S. Bacteriologic quality of raw human milk. effect of storage in a refrigerator. Annals of Tropical Paediatrics, 1987 Dec, 7(4): 233-7.

16. Sosa, R. Bacterial growth in refrigerated human milk. AJDC; 1987; 141: 111-112.
Note: reptmonth.

17. Pittard et al: Bacteriostatic qualities of Human Milk
J of Ped. 107 : 240-243 1985

18. Ajusi, J.D. Bacteriology of Unheated Expressed Breast Milk Stored at Room Temperature. Dissertation: submitted at the University of Nairobi; April 1986: 1-37. Note: Africa. Nairobi.

19) Barger, J. A comparison of the bacterial composition of breast milk stored at room temperature and stored in the refrigerator. IJCE; 1987: 29-30.

20. Simmes HA, Hallman NA. A perspective on human milk banking. J Pediatr 1979; 94: 1734.

21. Williamson S, Hewitt JH, Finucane E et al. Organisation of bank of raw and pasteurised human milk for neonatal intensive care. Br. Med. J. 1978; 94: 393-6.

22. Botsford, K. Gram-negative bacilli in human milk feedings: quantitation and clinical consequences for premature infants. Journal of Pediatrics; 10/1986; 109(4): 707 - 712.

23. Lawrence, RA: Breastfeeding: a guide for the medical profession. ....

24. Costa, K. M. A comparison of colony counts of breast milk using two methods of breast cleansing. JOGNN; 1989: 231-236.

25. Arquit, M. and J. Harrod. Reduction of bacterial contamination in banked human milk. J. Ped 95, 993-994, 1979.

26.

27.

28. BROWN H.K et al: Infant Feeding Practices and their relationship with