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THE WEANING PROJECT

IMPROVING YOUNG CHILD FEEDING PRACTICES
IN ECUADOR: PROJECT OVERVIEW

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ACRONYMS

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| A.I.D. | Agency for International Development of the United States Government |
| IIDES: | Institute for Research on Health Development |
| INNFA: | National Institute for the Family and Children |
| ININMS: | National Institute for Medical and Social Research |
| MSP: | Ministry of Public Health |
| NGO: | Non-Governmental Organization |
| PEM-PAAMI: | Program to Evaluate and Improve the Maternal-Child Supplementary Feeding Program |
| P.I.: | Independent Producers |
| PREMI: | Program to Reduce Infant Morbidity and Mortality |
| TWP: | The Weaning Project |
| USAID: | The Ecuador Mission of A.I.D. |

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BACKGROUND AND PROJECT ORGANIZATION

By the mid-1980s it had become increasingly clear within the nutrition and health communities that young child feeding and associated practices were a major cause of poor child growth in developing countries. A few pilot projects had shown that enhanced communication efforts could improve both feeding practices and child growth. To further develop methods from these promising experiences, the Office of Nutrition of the United States Agency for International Development (A.I.D.) awarded a contract for The Weaning Project (TWP) to Manoff International Inc. (now The Manoff Group) in late 1984. The contract called for in-depth investigation of young child feeding practices and the design of nutritionally sound, low-cost, and sustainable actions to improve them.

In mid-1986, the USAID Mission in Quito requested assistance from The Weaning Project on behalf of the Ministry of Public Health (MSP) for the National Child Survival Program known as PREMI. One of PREMI's four components was breastfeeding, later changed to young child feeding. Under this component, the MSP wanted to build upon and expand its existing pilot project, the USAID-assisted PEM-PAAMI Project.

PEM-PAAMI (the Project to Evaluate and Improve the Maternal-Child Supplementary Feeding Program) began in 1982 with an operations research approach. The project was run by ININMS (the National Institute for Health and Medical-Social Research), a branch of the MSP. Dra. Yolanda de Grijalva, nutrition researcher, was the project director. Active in the provinces of Manabi (Coast), Cotopaxi (Sierra), and Napo (Jungle), the project undertook both quantitative evaluation research of existing program activities and qualitative program planning research. The research was conducted throughout the three provinces, but pilot program implementation took place only in selected health centers and their catchment areas in the three areas.

In addition to modifying food distribution, PEM-PAAMI developed growth monitoring and nutrition education activities for the clinics. The growth monitoring activity consisted of a new growth chart which mothers helped design (it put red as the color of growth and pale green as the area of undernutrition per the mother's instructions) and a training module for health care providers from clinic doctors to community workers. The nutrition education module, called "We Want Healthy, Strong Children," focussed on improving young child feeding practices. A set of 18 counselling cards for use by community workers and auxiliary nurses was developed for the Coast and Sierra. The cards contained specific messages about improved household feeding practices for children of different ages and growth status. Five radio spots for the Coast and five for the Sierra were also produced. A homemade food mix (called *fuersan*), comprised of cereal, legume and oil, was tested and promoted.

Although project achievements were not quantified, a mid-project review indicated that:

- Mothers were more knowledgeable about child feeding and that many were beginning to make small changes in their child's diet.
- The radio spots were heard, remembered, and acted upon;

- *Fuerson* was being made by mothers, especially those in the Sierra, for themselves and their children;
- The counselling cards were well liked by both auxiliary nurses and community workers but were used more at the community level. The nurses, who often used the cards in group settings, complained that they did not always have time for individual counselling.

The child survival initiative of the MSP sought to use this positive PEM-PAAMI experience as the foundation of its child feeding component. In mid-1986, the team from ININMS that had worked on the PEM-PAAMI project was incorporated into the Child Survival Group that was under the Division of Health Promotion and Protection. Moving the project from ININMS was a continuing problem, in large part because MSP staff directing and working on the project remained officially staff members of ININMS (later referred to as IIDES), but their work was supervised and sometimes directed by the head of MSP's Division of Promotion and Protection, which oversees the Nutrition, the Maternal/Child Health and Health Education units.

Under the Child Survival Program (which also suffered many changes) either the Young Child Feeding Project was ignored and had problems moving ahead or it became the center of attention with too many directions given to a staff that had been working independently and who were not directly responsible to those supervising the work. To ease coordination problems, an Advisory Group was established. This was usually made up of the Director of Promotion and Protection, Chief of Nutrition, Chief of MCH, MSP Child Survival Coordinator, USAID Child Survival Project Program Coordinator, and sometimes PVO representatives or the INNFA Child Survival communications coordinator.

The first activities under The Weaning Project were transitional, moving a small pilot project toward a national program to improve child feeding. While a work plan and additional research (more national in scope) was being developed, a selection of the successful PEM-PAAMI messages were given to the PREMI child survival communication team in INNFA (National Institute for the Family and Child), which began to develop national-level communications on child feeding. In 1986, the project team prepared 24 content briefs on child feeding for a radio course, and a few brief messages were written for broadcast during vaccination campaigns. These latter messages focussed on exclusive breastfeeding, breastfeeding techniques, and the need to give babies food in the fifth month of life, beginning with foods that are thick purees, not too watery. For the second immunization campaign, the project trained staff across Ecuador to weigh all children under two who were immunized and plot their weight on a child growth chart. For this a self-instruction manual and training module were developed. In addition to the radio course and the spots during the immunization campaign, a record set and radio program about "Dra. Adriana Bravo" was produced and aired. This doctor travelled in Ecuador to various health centers where she encountered different child feeding problems and was able to offer advice (the tailored advice from the PEM-PAAMI counselling cards).

THE ASSESSMENT

In August 1986, the planning phase began for the formative research on child feeding practices, the first step in developing a national strategy. Initial research plans called for collaboration between the MSP, INNFA (responsible for executing PREMI communications), and private voluntary organizations carrying out health and nutrition activities.

Unfortunately, due to administrative and bureaucratic problems, the initial qualitative research was never implemented. However, INNFA had conducted some focus groups on child feeding, child rearing and a few lifestyle-related concerns. After a careful review of this work, the decision was taken by the project advisory group to conduct a more detailed study on child feeding practices using a small sample that would be representative of the country, with the exception of Manabi, Cotopaxi and Napo provinces, about which the PEM-PAAMI project already had substantial information. The new research would be additive, not duplicative of the work done by INNFA.

In August-September 1987, a request for proposals was issued by the Ministry's Child Survival Project. At the same time, the PEM-PAAMI group, working unofficially under the child survival project, agreed to conduct a literature review of studies in Ecuador while TWP staff at Manoff International did a literature review of internationally disseminated journals. In October, the research proposals were reviewed and scored by the advisory group and TWP staff. After a series of discussions and interviews, it was agreed that the PEM-PAAMI team of ININMS could do the best technical job if a contract could be made with a management company to handle financial operations. This was done, first with Kelly Executive Services and later with ASISTEM.

The research plan developed with the ININMS team identified three objectives:

- to describe the actual feeding practices, attitudes, and circumstances associated with healthy and undernourished children under two years of age;
- to understand potential ways to reinforce or change these practices and the most effective ways to motivate changes as a basis for a comprehensive program to improve young child feeding; and
- to refine the research methods so they could easily be adapted for use in the development of other programs.

Formative Research

In January 1988, there was an orientation workshop for health professionals from the areas in which research would take place. All question guides, field instruments and logistical arrangements were finalized. There was a four-day training course for the field investigators. Finally, the project's advisory board met to review the research plans and provide their approval to begin.

A combination of data collection methods (in-depth interviews, observations, and focussed group discussions) were used for both the problem identification and concept testing or household trials phases of the formative research, so that different approaches might confirm and refine findings.

The sample was small yet carefully selected on a national basis to cover major population groups by geography, migration, and ethnicity. Children were selected based on nutritional status and age. The total sample over both phases included 337 mothers, 19 fathers, 49 health workers, and 33 key informants from 18 parishes in nine provinces of the country.

For the first phase, the in-depth household interviews and structured observation work, field guides from other TWP sites were adapted to Ecuador. Field researchers were trained to use these guides, which contained both closed and open-ended questions, general topics to explore, behaviors to observe, and formats to help interviewers structure their conversations and observations and to organize their field notes. Topics covered were: household composition; mother's activities; control of food resources; maternal lactation and infant feeding; food consumption (in part through a 24-hour recall); health, growth and morbidity; sources of information; feeding observation; household environment observation; and food preparation observation.

An initial 130 household interviews and 35 key informant interviews were completed in January and February 1988. In addition, after the research team reviewed the work they had completed, they carried out interviews in Loja Province (in order to understand conditions and practices in Ecuador's far south) and among hospital workers in the maternity hospitals serving the low-income areas of Guayaquil (to learn more about the conditions fostering the early initiation of bottle feeding as described by mothers who had given birth there).

To facilitate analysis of information collected in this phase, interviewers completed summary sheets after each household visit or at the end of the day. These summary sheets assisted in compiling observations or impressions about issues that cut across several question guides or areas of inquiry. After an initial analysis took place in the field, a more complete analysis done in Quito synthesized information from all seven provinces and formulated matrices for designing the next phase of the research.

The behavior change concepts to be tested in the second phase of the research were determined after reviewing the work sheets which listed for each age segment: ideal practices for the age period, real practices (noting differences among ages, ethnic groups, nutritional status, etc. where appropriate); motivations that might be successful in promoting change; and resistances to change that would be likely to be encountered.

Based on this exercise, specific, nutritionally sound recommendations were developed for the household trials. These trials entailed returning to homes with children of a particular age and asking mothers to try specific recommendations aimed at overcoming the major feeding problems observed during the first stage. Most of these trials were done with the families who had participated in the first phase of the research.

Finally, twenty-three focussed group discussions were held to obtain the reactions to certain concepts that could not be tested in trials and to test the most acceptable practices from the trials on those unexposed to this work.

The results of the analysis of each phase were compiled in an overview report which was subsequently condensed into a research summary for policy and programming purposes. Apart from the full and summary report, a manual on the research process was written.

Summary of Findings

Family composition. About two-thirds of households have a nuclear family structure (mother, father, children). Average nuclear family size is six members. Just less than half of households include other family members (usually grandparents, brothers, and in-laws).

Therefore: Having many small children at home means mothers have less time to feed each child under two years old. The influence of other relatives on the child's care should be considered. All family members should be included in the audience of nutrition education programming.

Family income and employment of parents. Most families have low incomes and limited purchasing power. In rural communities, most families have a small amount of land, and some households cultivate food for family consumption. In the Coast, many fathers work as agricultural day laborers on farms they do not own. In the rural Sierra, many fathers migrate to the city to find temporary work that contributes a relatively small amount to family income. When women work, their money is added to family resources, which are usually spent at the discretion of the husband.

Therefore: Most families' low incomes limits their purchasing power. Program focus should be on better use of family income and should minimize any additional costs.

Mothers' work schedule and child care. In general, mothers believe that they are overburdened with activities, even though there is a wide variability in the actual amount of work reported. Work typically includes care of other people in the household; food preparation; washing; ironing and sewing; cultivation of family plots for home consumption; and animal husbandry. Mothers say they spend hours caring for children, which often means being in the presence of the child but not necessarily caring for the child. Mothers' routine chores are in addition to income-generating work. Work outside the home is the single most common reason given for cessation of breastfeeding and poor child care (especially in urban areas). Observations indicated that undernourished children are cared for more because they are often sick, but they are also perceived as "difficult" and are treated roughly because the mother loses patience.

Therefore: Mothers' time is a factor to consider for all recommendations to improve current feeding practices. All mothers think they are busy in spite of a real differential in work loads.

Food availability. Rice, pasta, potatoes, and flours are the most common foods. In urban communities in the Coast, families tend to buy small amounts of food daily because they are often paid daily and have no means to preserve food in the hot, humid climate. Across all regional and lower socio-cultural groups, consumption of vegetables, fruits, meats, milk and eggs is low. Although mothers are concerned about the high cost of food, only about five percent of families

were observed to have an absolute lack of food. This was most serious among the indigenous highland population.

Therefore: Regardless of the high cost of food, overall food availability is not a limiting factor to improving young child nutrition except for the indigenous population. It is important to address the perception of food as the limiting factor and to emphasize that families must modify food distribution within the household to improve the nutritional status of weaning-aged children.

Education and literacy. Levels of formal schooling are low although most mothers and fathers are literate in Spanish (fewer in the rural Sierra). Members of several indigenous highland groups prefer using their first language, Quichua.

Therefore: Low literacy should be considered when developing printed materials, both in the graphic and printed messages. Spoken messages should be translated into Quichua (which 40 percent of the population speaks), even though most Indians are bilingual.

Parents' aspirations for their children. In urban coastal communities, mothers describe themselves as living day-to-day, with little hope for the future. Although mothers in urban Sierra areas think about their child's future, they have a fatalistic anxiety. Most rural mothers do not speak of expectations for their child's future. Many mothers say they do not want to be pregnant, but accept the situation with resignation. In general, both parents have educational and professional (income-earning) aspirations for a son and hope that a daughter will marry and become a good mother. There is a consistent theme that the future of their children's lives is in "God's hands."

Therefore: Messages should point out that improvements in feeding practices are important for both boys and girls. Also, a theme for parents should be that the future of their children depends on what they do today.

Mothers' self-confidence and decision-making ability. Mothers feel obliged to obey and defer. Fathers are the primary decision-makers regarding child feeding practices. After the father, mothers-in-law, sisters-in-law, and other in-laws in the household have strong influence. Young mothers have particularly little say, and if the father is not present in the household, the grandmother is the important decision-maker.

Therefore: Fathers and mothers-in-law are critical audiences for program messages and participants in activities.

Perspectives on infant growth and development. Almost all mothers considered their children to be normal even if they were undernourished. Although mothers indicate that they want their children to grow up healthy, strong, and intelligent, they consider "healthy" to mean large and, to a certain extent, fat. Mothers with well nourished children are more concerned about whether or not their children are growing properly. And mothers of undernourished children are most likely to blame the whims or will of the child for its poor eating. They do not recognize their own persistence as an important factor.

Therefore: Even though mothers have certain criteria for their children's growth, these are not objective. To motivate mothers it is necessary to help them to evaluate their children's growth using the growth curve on the Child Health Record. Also, mothers must believe that persistence will prevail with fussy children.

Knowledge about health and nutrition. People commonly view children as being "born healthy" or "born sickly." They do not see links between feeding and growth. The idea that a child, even if born sick, can become healthy as a result of actions under the family's control is not part of their conceptualization. In addition, food beliefs restrict the number of adequate and "healthy" food offered to infants. Children are commonly given soups or broths in small quantities only.

Therefore: It is necessary to establish a better link between feeding, growth, health and the idea that a child, even if born sick, can become healthy.

Communication patterns. (a) Mass media. Radio and television are ubiquitous in urban areas and also widely present in rural areas. Urban mothers in particular watch soap operas, in their neighbor's house if they themselves do not have a television. The few printed materials found in households are often school-related materials, calendars, and religious posters.

(b) Community. Community organization and participation is limited except in indigenous communities. Consistently high participation in the church is seen. Markets are also a fixture in the majority of communities.

(c) Individuals. Physicians and other health personnel are seen as "qualified" to give health and nutrition advice. Grandmothers, neighbors, midwives, pharmacists, Peace Corps Volunteers, and others are also seen as credible sources of advice.

Therefore: The program should use a multi-media approach. Mass media, especially radio, should be utilized to the greatest extent possible. Print materials for the walls of the house would also be popular. Religious and community organizations, especially in the indigenous areas, should be taken into consideration. The prestige of physicians make them appropriate authority figures to give correct health messages (training will be required). The use of other information sources such as midwives, pharmacists, or volunteers (especially women) is also important.

Use of health services. Although physicians in general are regarded with prestige, government health services are viewed as being of poor quality. A visit to a private physician is the preferable course of action for illness. Families use a variety of sources of care besides physicians, including pharmacies, midwives, traditional practitioners, and home care.

Therefore: Private and public health services, both traditional and modern, should be considered as places to reach people with nutrition messages and as potential key points from which to disseminate messages.

Nutritional status, feeding practices and what can be done

(a) **Newborns.** Prolactal feeds are commonly given within 24 to 48 hours after birth, especially in indigenous areas and on the Coast. Bottle feeding is common in maternity hospitals. Less than one quarter of mothers (more on the Coast) discard colostrum. Approximately two-thirds of mothers initiate breastfeeding within the first two hours of birth. Mothers generally breastfeed young infants on demand. Although most young infants are breastfed, approximately one-third also receive bottled milk, especially if they were born in a hospital. Newborns rarely receive foods other than milk except for anise water, which is commonly suggested by a physician for gas and colic.

Therefore: Newborn feeding practices are highly influenced by the place of birth (home or hospital and the particular hospital's norms). The main problem is that most mothers start bottle feeding before breastfeeding during the first few days after birth (Coast and urban areas). The recommendation is:

Start breastfeeding immediately after birth and give colostrum. It is important to establish a strong feeding model for mothers from the beginning. The strategy to promote immediate breastfeeding should include changes in hospital norms and advice on breastfeeding during antenatal care. It also should include an information/ motivational component for mothers about normal production of breast milk. Colostrum promotion should avoid the word "colostrum" because it confuses people, and promote the words "first milk", a concept understood nationwide.

(b) **Infants 0 to 3 months old.** Most children of this age are well-nourished and breastfed, but only one-third were exclusively breastfed (more in the rural Sierra). Many mothers give only one breast at each feeding and frequently use the same breast for all feedings, because it feels more "comfortable" or because the milk "dried up" in the other breast. Most women breastfeed their infant on demand to prevent the child from crying. Some mothers in the Coast start teas and water because the child is "thirsty and hungry" and in the Sierra because the children have "gases and colics" or "so they can grow up healthy." About two-thirds of mothers (more in urban areas) give their children other foods (milk, fruit juices, soups in small quantities) before four months of age because of "medical advice." Bottle feeding is common in urban coastal areas, but there is a strong tendency to bottle feed even in rural Indian communities. Water used in bottle feeds is rarely boiled and the bottle is not sterilized.

Therefore: The main problem is bottle feeding with water and other types of foods during this period. Because of this, the promotion of exclusive breastfeeding of children under four months is an urgent necessity. Feeding practices for this age group are slightly different in the Coast, Sierra, rural and urban areas. In urban areas and on the Coast, weaning starts at an earlier age and bottle feeding is more common. The recommendations are:

Breastfeeding on demand (at least eight times a day). The likelihood of a mother carrying out this recommendation depends on her attitude toward her own health and time availability and on whether she believes she can produce enough milk. The project should

help build mothers' self-confidence and include specific counselling about breastfeeding techniques and the mothers' own diet.

Feed with both breasts, 10 minutes each. There are no clear barriers to following this recommendation except for the time factor. The concept of complete breastfeeding (frequency, duration, and the use of both breasts) should be a priority for this group.

Stop bottle feeding and other foods. This is part of the message on how to breastfeed exclusively.

(c) Infants 4 to 6 months old. A deterioration in nutritional status occurs at this age. Reasons include a diet of foods low in calories and more sick days (mostly because of diarrhea, respiratory infections, and skin disease). Most children are breastfed but only one fourth exclusively (mostly in rural areas). An estimated one-fourth of these children are weaned from the breast before six months of age, mainly because the mother's milk "dries up," mothers become pregnant, or they receive medical advice to stop. Among mothers who breastfed on demand, a low frequency of feeds per day and a short duration of each feed was observed.

More than half of mothers introduce weaning foods, and say they do this under medical advice, so that the child's stomach "toughens up" and gets used to regular food, and because breast milk is not sufficient for a child of this age. The most common weaning foods are fruits (juices), soups, rice, and *horchata*. Soups are thought to be good and light and to have concentrated nutrients. Liquids are preferred because children drink them more easily, they do not make children ill, children are too young for other foods, and liquids are recommended by the doctor. Most "foods" are given in small amounts using a bottle.

In general, mothers do not prepare special foods for their children. They do not know of high quality food mixtures, particularly those with sufficient calories for children this age. Mothers also do not have accurate knowledge of the amount of food their child can eat and tend to underestimate a child's capacity.

Mothers of malnourished children do not urge their child to eat, letting the child decide what to eat, how much, and when. Mothers do not increase the amount of food they give to the child as it gets older.

Therefore: The main problem for children 4-6 months old is that weaning is started with liquid foods, given in small amounts, usually with a bottle. Mothers have no knowledge of infant needs, quantity and consistency of foods. Messages should confront mothers' fear to give *food* (instead of liquids) to their children. The recommendations are:

Breastfeed adequately (on demand, 10 minutes each breast, both breasts six times a day). The concept of complete breastfeeding at this age is feasible if messages reinforce the practices to breastfeed on demand and from both breasts (so that the child gets used to it, more milk is produced, and the child is fully satisfied).

Stop bottle feeding. The most efficient strategy to reduce bottle feeding is to prevent its use from the start. Therefore, a program to promote and support better feeding practices (focussed on health personnel, parents and other family members) is essential. Feeding other types of foods through a bottle should be prevented at this age, through a program promoting a dense weaning food as best and most convenient.

Start weaning at four months (fifth month of life) with at least one dense food from the family meal that is mashed (thick, not watery). In general, there are no major resistances to including children at the family meals. Therefore, this recommendation can be promoted to teach mothers that children can eat food of thicker consistencies (even if the child has no teeth). As always, the medical professionals must support changing these practices; otherwise, mothers will be confused with the contradictions.

Prepare a special weaning food for children 4-6 months old. Give 10 teaspoons at least once a day at a meal and as a snack. The preparation of special foods to start weaning at 4 months is feasible. It should go together with the recommendation to feed mashed foods (from the family meal). There is no resistance against the preparation but there is regarding the quantity of food. This can be overcome if the mother is convinced that her child can eat much more than at present and if she receives reinforcement to feed her child correctly.

(d) Infants 7 to 9 months old. Many of these children, particularly in the rural Sierra, are undernourished. Illness episodes last longer and dietary intake is low in calories and deficient in iron content. Those mothers who continue to breastfeed exclusively do it because "the child is too young to eat" (rural Sierra) and "it is a habit" (indigenous group). The majority of mothers breastfeed only two or three times in a 24-hour period, except indigenous mothers, who breastfeed many times a day but only for a few seconds each time. Many mothers prefer to offer one breast each time they feed or exclusively use one breast.

Most of the infants have started dentition, but mothers continue to favor a liquid diet, usually with a bottle. More than half of all children are bottle fed, particularly in urban communities and the Coast. Preferred ingredients and mixtures given by bottle are:

- Sierra: *coladas* (thick soups), often oatmeal in water or milk; teas with sugar; *maicena* (corn starch) with water or milk; fruit juices; milk-oatmeal (distributed by the national food supplementation program).
- Coast and Oriente: *coladas* (often green banana cooked in water or milk); cow's milk (liquid or powdered) with water; powdered formula (NAN, LACTOGENO); milk-oatmeal.

Most of these infants in this age group eat one family meal on their own plate. Mothers let children decide if they want to eat or not, what food, and how much. Mothers dedicate little time to each feeding session.

Therefore: The main problem in this group is the lack of sharing family meals with the child and of attention to feeding the child, causing inadequate caloric intake. It is necessary that

children be considered like other family members for meals and snacks. Giving children their own plate and seeing their growth on the Child Health Record could be the best motivations for mothers to become interested in spending some time to feed their children. The recommendations are:

Continue adequate breastfeeding (on demand, ten minutes each breast, using both breasts each time, six times in a 24-hour period). The increase in frequency and length of each breastfeed can be accomplished if the mother is convinced that the child will be more satisfied if s/he breastfeeds more. Mothers need advice and information about how to produce more milk.

Stop bottle feeding. The strongest resistances are the mother's "convenience" and the child's "decision". The motivation to stop bottle feeding at this age should be "so that the child learns to eat", and because children can eat food of thicker consistency with their own plate and spoon.

Give the child more nutrient-dense food: half a plate each time, on his/her own plate, two or three times per day. The strategy should explain that "nutrients are found in denser food" and provide guidelines for mothers about the amount a child should eat, reinforcing the concept that the amount of food should be increased every day so that the child grows up healthy and strong. A photo showing a child eating from a plate with a spoon should be used to show mothers that this is possible for children this age.

Feed two special snacks, *alisan* (noodles with tomato, "green rice", or fish *sango*) and *fuersan* (from barley flour, lima bean flour, and oil). Increasing the consumption of nutritious snacks is possible, as *fuersan* was widely accepted among the population with children over seven months old. It is easy to prepare at home, and a *fuersan* pre-mix could be sold to mothers who work or do not have time to cook and for mothers in those areas where some of the ingredients are difficult to find.

(e) Infants 10 to 12 months old. Nutritional status continues to worsen and illness becomes even more frequent than during mid-infancy. No infant in this age group had adequate caloric consumption, and half of the sample had diets low in protein.

Generally, boys are breastfed longer than girls because breast milk is believed to make girls "too fertile." Reasons to discontinue breastfeeding include: "the milk is no longer good"; a new pregnancy; the child may become "spoiled, coddled and too dependent on the mother"; "the child no longer likes breast milk"; "the child has teeth and bites"; the mother has started to take an oral contraceptive; it is recommended by the doctor, father, or other relative. Almost two-thirds of the sample were currently breastfeeding but most only at night and from one breast at each feed (usually the same breast). For some children, especially in the Sierra, breastfeeding continues to be the basis of infant feeding, with other foods given for the child to taste.

Almost half of the children in this age group are bottle fed. In most cases, the ideal food supplement is a liquid, given by bottle. The most common foods given to these children are: *coladas verdes* (thick soups in the Coast), water and sugar; oatmeal with milk and fruit; carrot.

tomato, and other fruit juices; *maicena* (corn flour) with water or milk, milk-oatmeal, soups, water (Coast), teas (camomile, oregano, anise, *hierba luisa* (Sierra), small amounts of fish (Coast), small amounts of meat, and commonly used starches such as *machica*, wheat, banana flour, lima bean, and corn.

The particular foods offered to these children depends on which are available to the family. Children on the Coast have a more varied diet than in the Sierra, and more variety is also seen in urban than rural communities. Non-nutritive food consumption (colas, gelatins, and *cachitos*) increases for this age group.

These children generally eat with the family two or three times daily and eat one snack per day. They commonly do not consume enough food at each feeding and mothers indicate that this is because their children are not hungry. The well nourished children in this group are offered many different types of food in small quantities "all day long."

Therefore: The main problem in this group is that the children are not fully included in the family diet: they continue with the diet of younger children. At this age, anorexia develops, and the child does not eat. It is important that mothers have enough self-confidence to insist when feeding the child. The recommendations are:

Breastfeed fully from both breasts six times a day and night, ten minutes from each breast, after meals. The concept of full breastfeeding does not exist for this age group. The practice of feeding from only one breast is common in all areas of the country (although not with all mothers) and will be difficult to change. The recommendation of increasing the frequency of breastfeeding is feasible, but increasing the duration of each breastfeed was not accepted. These messages are not the highest priority for this age group.

Stop bottle feeding. Messages should emphasize that a normal nine to ten month old child can drink from a mug and can use a spoon. In fact, the bottle is less convenient. Messages to stop bottle feeding should be reinforced with messages to continue breastfeeding.

Include the child at family meals (3/4 to one plate at each feeding, two to three times a day, "salty" and "sweet" food at the same meal, and using the child's own plate and mug. There is little resistance to including children at the family meals since the child already asks for food and stays awake all day. Regardless of whether the child eats alone or with the family, the important message is that the mother should supervise the child's eating. The most important changes are to increase the amount of food at each meal and to change the consistency of food. It is essential that medical advice for mothers support these recommendations.

Give the child two snacks: 3/4 plate each time of *fuersan*, *alide*, or *alisan*. It seems feasible that this recommendation to provide adequate and nutritious snacks would be followed, especially if the message is given as doctor's advice. The message should include recipes for the recommended snacks. The change from "junk foods" and other inadequate snacks to adequate ones does not seem to be a major problem, as mothers accept these mixtures, and the ingredients are easily found at home or purchased.

(f) Children 13 to 24 months old. Most children are undernourished and are ill even more frequently than infants. Almost all have caloric deficiencies, half severe, and two-thirds have protein deficiencies.

One-third of these children still breastfeed (especially in the rural Sierra). Most children in this age group are bottle fed, often mixtures that include milk, gelatin, milk and oatmeal, juices, soups, liquid foods, milk-oatmeal, and *coladas* (*machica*, banana flour, and *maicena*). Many mothers insist that children eat soups first (meat/bone or vegetable) because they believe these foods contain concentrated nutrients. Mothers consider dry grains, cheese, seafood, sausages, canned foods, and condiments inappropriate because they are "heavy." Consumption of non-nutritive foods increases.

Most children eat three meals a day (but some eat only two), feeding themselves with a spoon or using their hands. In rural areas, children eat while sitting on the floor, and domestic animals frequently eat part of the child's food. Well-nourished children eat a large variety of foods throughout the day, while undernourished children tend to eat one type of food (usually liquified) and some "junk food".

Therefore: The perception of what and how much a child in the second year of life can eat requires improvement. Quantity, caloric density and supervision of eating are major problems. Mothers should be reminded that these children have not yet developed their eating habits. The recommendations are:

Continue breastfeeding. Motivations and reactions of mothers to these changes in practices were the same as those listed for younger children.

Stop bottlefeeding. Motivations and reactions of mothers to these changes in practices were the same as those listed for younger children.

Feed five meals (food, not liquids) a day: three family meals and two snacks: Snacks were extremely popular for this age especially the mix of grains-*fuersan*. The fear of the child choking on "dry" food must be addressed as well as the "heaviness" of foods.

Increase the amount of food to one plate and one cup of food, both "salty" and "sweet," at each meal. This met with resistance. Mothers don't believe children have this "capacity". However, some mothers were successful and thought this was good advice. Their child seemed more "satisfied".

(g) Children sick or recovering. Morbidity is common. Most frequent illnesses are: acute respiratory infection, diarrhea, and skin diseases. Illness plays a clear role in undernutrition and mothers say feeding is difficult or virtually not done during acute illness. Breastfeeding generally continues during illness. The only exception is "when the child has diarrhea caused by a new pregnancy", and then breastfeeding is stopped. Feeding either continues (often with fats being stopped) or it is severely reduced or curtailed. Few modifications are made in what is given. The reasons for stopping include: "child doesn't want to eat" (mother's perception and actual occurrence); "the food will harm them"; the recommendation of the doctor, health worker or a relative.

Therefore: The main problem of feeding sick children is that they do not want to eat and mothers do not insist, fearing that food may worsen the illness. There is no concept of a recuperative period, so the development of this concept is important. The recommendations are:

Continue breastfeeding, even while the child has diarrhea, and give light meals. Increase the amount of food during the recovery period. Mothers who are still breastfeeding sick children should continue this practice. The rest of the population gives only liquids, soups for the most part, but it does seem possible to convince mothers to continue feeding denser foods until the child's normal appetite returns. Mothers do not have a concept of the necessity to continue feeding their children during the recovery period. Many believe the child should eat less food during convalescence. Individual counselling should be successful in improving these feeding practices.

STRATEGY FORMULATION AND THE COMMUNICATION PROGRAM

The Strategy

Once the formative research was complete and had been summarized and its program implications outlined in detail, a national level seminar was convened in September 1988 on improving young child feeding and childhood nutrition in Ecuador. This seminar was timely because a new government had taken over and appointed a Minister of Health with professional interest in nutrition. The national seminar was sponsored jointly by IIDES¹ and the Department of Health Promotion and Protection with funds from the USAID Child Survival Project.

The workshop benefitted from the participation of more than 100 persons, including the Minister and Subsecretary of Health. Although skepticism of the qualitative research methods ran high, as the methodology and results were discussed, these misgivings disappeared. At the workshop, the participants used the formative research results and their own experiences to identify priority areas for activities to improve young child feeding practices. They were: communications and education; training, laws and norms; products and child care. Based on these priority areas, participants broke into working groups to offer more details on what they felt should be the approach and specific actions. Based on the outcome of the workshop, the strategy was developed.

Once the strategy was outlined, organizations needed to be identified to implement each component. Originally, it was assumed that the child survival project would carry out most activities, especially those related to communications and training. However, by January 1989, the

¹ In April 1988, ININMS was absorbed by a newly created Institute for Research for the Development of Health (IIDES).

IMPROVING YOUNG CHILD (0-24 MONTHS) NUTRITION

- Three major causes of undernutrition were recognized:
- Availability of food (socioeconomic situation)
 - Morbidity
 - Feeding practices

► This plan addresses only the improvement of feeding practices.

| FACTORS | Knowledge of families | Knowledge of persons who influence families | Laws and Norms | Products | Other |
|--------------------------|--|---|---|--|--|
| SPECIFIC PROBLEM | <ul style="list-style-type: none"> ● Many critical practices are not known (detail in research report) ● Mothers' low self-esteem ● Decisions made by child regarding food ● Fatalism ● Perception of busyness ● Support of father | <ul style="list-style-type: none"> ● Give incorrect technical advice and/or advice not in accord with families' lives. ● Lack skill to tailor general advice to specific child problem ● No standardization of advice. | <ul style="list-style-type: none"> ● Don't permit optimal breastfeeding ● Existing laws are not enforced. ● Lack of operational norms | <ul style="list-style-type: none"> ● Inadequate and inappropriate use of growth monitoring ● Lack of a concept of food quantities ● Lack of convenient, inexpensive snack foods | <ul style="list-style-type: none"> ● Lack of attention to work of mother and care for child |
| STRATEGY ELEMENTS | <u>Program of Community Education</u> utilizing: <ul style="list-style-type: none"> ● mass media ● educational agents in non-formal sector ● educational agents in formal sector | <u>Training and Retraining Professionals</u> <ul style="list-style-type: none"> ● formation of professionals doctors/nurses social workers nutritionists agriculture ● in-service training: -- workers from different sectors directly responsible for infant programs, and community leaders | <u>Reform/Enforcement of Laws and Norms</u> <ul style="list-style-type: none"> ● maternity norms ● set norms relating to child feeding ● laws to protect working women ● enforce code on marketing of breast milk substitutes | <u>Products</u> <ul style="list-style-type: none"> ● community growth monitoring ● production of a child bowl/plate ● investigation of different snack foods | <u>Child Care</u> <ul style="list-style-type: none"> ● community child care services |

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communications program conducted by INNFA was terminated and the MSP had taken over those responsibilities. Following the workshop, the decision was taken that the Department of Promotion and Protection would be the principal implementor and would implement a few key activities from the strategy during the first phase of the child feeding project. Throughout this design phase, the two key members of the IIDES research team continued to work on strategy formulation and execution. The priority activities that were selected for this first phase, which had a September 1989 date of completion (the end date of TWP), were to: (1) launch a communications program in hospitals, health centers, and the community, utilizing a multi-media approach; (2) work to have the faculty associations and their curriculum committees accept a manual of basic concepts on child feeding that should be incorporated into formal, pre-service training and to supply them with a folder of current scientific articles supporting or refuting common conceptions about optimal infant and child feeding; (3) reproduce and disseminate scientific documentation on child feeding and training materials for in-service training; (4) work on a manual of operational norms related to child feeding of children 0-2 years.

Once the priority activities were agreed to by the advisory group, the project team reviewed the resources needed to execute the activities. The following agreements were reached on how to carry out the work in a timely, cost-efficient way: (1) continue to work with the team in IIDES as the main project team; (2) contract with an advertising agency or materials production house to develop a creative strategy and the materials; (3) collaborate closely with the MSP health education unit to review this work and help with testing it; (4) contract for administrative and financial services; (5) increase the frequency of communications between the project team and the advisory group so approvals for materials could be obtained from MSP authorities without excessive delay.

The Communication Program

After the agreement on priority activities, the project group wrote a strategy brief to guide the education/communication work. This brief included a background statement about the priority the MSP was giving nutrition and within it the priority of young children and feeding practices. (At this time, the National Development Council had called for the formation of a multisectoral Nutrition Committee to plan programs to address the country's nutrition problem.) Then there was a summary of the results of the formative research and the outcome of the strategy workshop. Following that, a plan of action for the education component was given specifying the education objective of the program, a general strategy and details on four areas: (1) general concepts; (2) breastfeeding; (3) initiating feeding that complements breastfeeding; and (4) feeding during and after periods of illness.

The stated objective was to launch a public nutrition education program (address families with young children and limited resources) to improve the information these families have in order to:

(a) improve their child feeding practices—establishing and continuing optimal breastfeeding and a pattern of adequate feeding during weaning that emphasizes frequency of feeding, quantity of food and the consistency or caloric density of the food;

(b) directly address general resistances that work against achieving the specific improvement in practices such as: the lack of a concept about food, growth and health; the lack of maternal self-confidence; and the feeling that nothing can be done because of "being poor".

The strategy idea that was elaborated drew heavily on the experience of PEM-PAAMI and the thoughts of participants in the national strategy workshop. Following is a summary.

To change feeding practices at the household level:

| <u>How</u> | <u>With what</u> |
|--|---|
| <ul style="list-style-type: none">● Reach the house with information<ul style="list-style-type: none">- Radio/TV/newspaper- Promoters/community leaders | Specific feeding messages Materials to counsel families about their specific situation |
| <ul style="list-style-type: none">● Reach parents outside the house<ul style="list-style-type: none">- Organized group such as mothers club | Materials for group education that address common problems |
| <ul style="list-style-type: none">- Health centers/ child care centers | Materials to counsel families about their specific situation |
| <ul style="list-style-type: none">- Maternity hospitals/ prenatal clinics | Materials to counsel about the initiation of breastfeeding |
| <ul style="list-style-type: none">● Reach other family members<ul style="list-style-type: none">- Food shops | Materials related to buying foods for young children |
| <ul style="list-style-type: none">- Schools | Materials for school children related to meals at home |
| <ul style="list-style-type: none">- Literacy classes and church groups | Materials that cover common problems |
| <ul style="list-style-type: none">● Market or distribute a baby bowl or plate | Promotional messages Point-of-purchase advertising |

To change the general environment to facilitate change at the household level:

How

With what

- Radio/TV/print
- Opinion leaders

Messages of a different image for child feeding and of promotion of the concepts

Based on these ideas approved by the advisory group, the project team wrote a bid document and distributed it to a short list of advertising agencies and production houses that were selected after an interview process. A panel of MSP officials with the USAID Child Survival Coordinator reviewed the bids according to an agreed upon list of criteria and selected Productores Independientes (P.I.). This is a production house that works primarily in video and educational television. However, the owner is dedicated to development issues and offered ways that the company could work on an educational program using more diverse media.

The strategy brief and the detailed outline of important child feeding concepts given to P. I. during a thorough briefing. P.I. was to review the documents and write a creative brief and media strategy, and once that was approved, to begin work on the materials. However, first P.I. actually drafted some of the materials and then wrote a creative brief and strategy.

In May 1988, the basic communication/media plan was approved by the project team, the advisory group and the Minister of Health. The program, called *El Mejor Comienzo* (the Best Beginning), was a multi-media program for the spectrum of audiences to raise awareness of the entire young child feeding problem (chosen as a priority of the Multisector Nutrition Committee) and to illustrate solutions for everyone based on resources available. One complicating factor was that UNICEF had recently offered support for a mass media breastfeeding promotion campaign that would raise awareness of the importance of breastfeeding. The work done by P.I. was to focus on the introduction of semi-solids and feeding rather than breastfeeding. (In the end, this was difficult given the complementarity of the two practices, but every attempt was made not to duplicate UNICEF's work.) The basic communication plan for *El Mejor Comienzo* included the following elements.

- television: for rural, middle classes and all urban audiences, a documentary film showing the child nutrition and feeding problem, people's thoughts and solutions; a motivational and promotional video clip; three spots that describe nutrition problems, specific solutions, and how to overcome resistances to solving them.
- radio: for poor and middle classes who live in urban and rural areas, one spot to raise awareness of the relation between health, growth, and nutrition; three spots on four priority problems, solutions, and resistances to solving them (in Quichua and Spanish for the Sierra and in "coastal" Spanish for the Coast).
- newspaper: for middle and upper classes and teachers, a newspaper insert with nine themes on feeding children under two years old.

- **civil registry:** for all parents of newborns, a simple booklet that contains the basic actions needed to protect that infant's health and nutrition.
- **posters:** for mothers and staff of maternity centers, all mothers, and the population in general--one poster to motivate immediate initiation of breastfeeding and one reminding health staff and mothers to put the newborn to breast immediately after birth.
- **counselling cards:** for health staff and mothers of children under two, a mural showing key actions to improve counselling for health centers.
- **instructional manual:** for training health personnel.

The months of May and June were spent refining and getting approvals on draft materials. Two key recommendations on the draft materials were to find a unifying theme to tie the messages together so they linked better with the title, *El Mejor Comienzo*, and to make some materials more educational in nature (less promotional--geared only to image and awareness creation) and aimed more specifically at low income families. All materials were approved by the advisory group and the Minister of Health before they were drafted for pretesting.

Pretesting of the materials was done by the Division of Health Education of MSP in July. Based on the testing, revisions were suggested for some of the graphics and language in the radio spots. By September 1989, all the materials were finalized with the exception of the counselling cards. On the following pages are examples of some of the print materials. Unfortunately, the television documentary and clip and the two songs that were recorded especially for this effort (a lullaby and a rhyming song) cannot be appreciated in a written report, but the scripts for the documentary and the radio and TV spots are in the Appendix.

While the project group in the MSP worked closely with P.I. on the communication program, they also were working on the training component, trying to influence the design of curriculums for medical personnel. Basic contents of young child feeding were drafted and given to the associations that oversee medical and nursing training. The counselling cards and training in their use, that is much of the in-service training component, was developed by the project group, learning from the experience with counselling cards in PEM-PAAMI.

IMPLEMENTATION

The end of TWP and the phase-out of the USAID-assisted child survival project in September/October 1989 meant that two of the mechanisms to facilitate implementation, especially in terms of extra funding and ways to contract for services were no longer available. In August, the MSP requested that what remained in the TWP budget for Ecuador be added to the contract with P.I. to ensure that materials were reproduced by October.

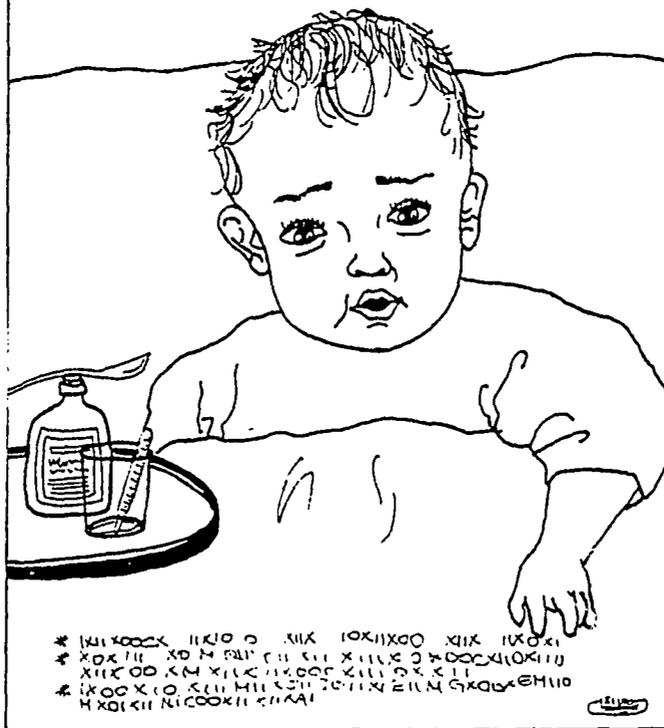


"My First Book". Cover of the baby book available to parents when they register their baby's birth. Reviews basic health precautions and infant feeding.



◀ "The Best Beginning: A Guide to Feeding Children Under Two Years of Age. Cover from the supplement in the Sunday newspaper.

A VECES EL TE NECESITA MAS



"Sometimes He Needs More". Poster about feeding sick child. Text at bottom emphasizes the need to continue to breastfeed and give soft foods, and to feed more food when the child is recovering.

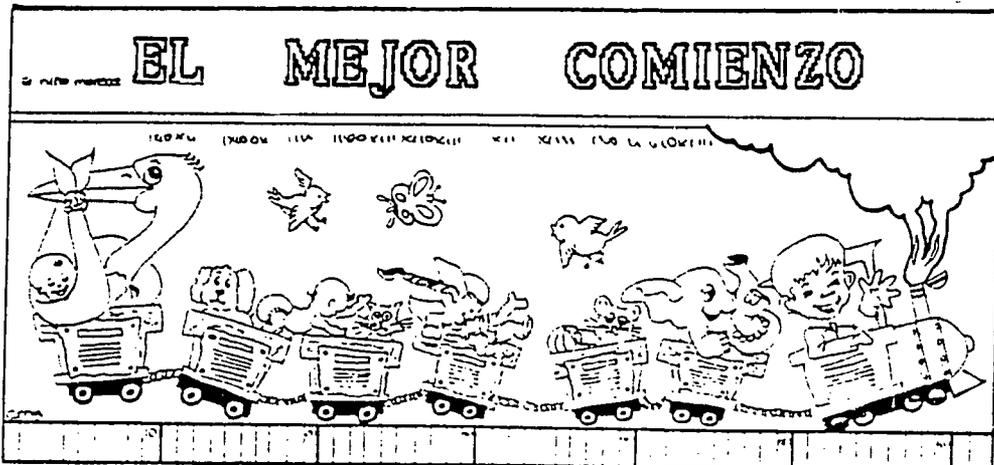
EL MEJOR COMIENZO



◀ "The Best Beginning". Poster about initiating breastfeeding. Text at the bottom emphasizes immediate initiation for the mother to have abundant milk and more confidence in feeding.

| EL MEJOR COMIENZO | | | | |
|---|---|---|--|---|
| 4 meses | 6 meses | 9 meses | 1 año | 2 años |
|  |  |  |  |  |
| DE 0 A 4 MESES | DE 4 A 6 MESES | DE 6 A 9 MESES | DE 9 A 12 MESES | DE 1 A A 2 |
| ===== | ===== | ===== | ===== | ===== |
| ===== | ===== | ===== | ===== | ===== |
| ===== | ===== | ===== | ===== | ===== |
| ===== | ===== | ===== | ===== | ===== |
| ===== | ===== | ===== | ===== | ===== |
| ===== | ===== | ===== | ===== | ===== |
| ===== | ===== | ===== | ===== | ===== |
| ===== | ===== | ===== | ===== | ===== |

"The Best Beginning". The mural for health center walls depicts the weaning process from exclusive breastfeeding to primary reliance on family foods. For each age the specific advice is listed to aid counselling mothers.



"The Child Merits the Best Beginning". A poster for doctors' offices with messages for different aged children on the cars of the train.

Implementation of project activities after September 1989 included airing of the television documentary several times on all networks, broadcast of the television spots, although with not much frequency. The radio spots were given to the health educators, who in turn arranged their broadcast on local stations. The newspaper supplement was printed for one Sunday edition of the major national newspaper. The booklet for newborns and the posters were reproduced and distributed to all units in the health sector, including both the MSP and Social Security networks, private physicians and non-governmental (NGO) projects.

The counselling cards which were drafted, but never printed, were finally completed by the project director from the MSP once she left the MSP and began working for a local NGO, Catholic Relief Services. Examples of these counselling cards for infants, seven to 12 months old, who are (1) gaining, and (2) not gaining weight, are found below. Seven hundred sets have been distributed to all MSP provincial nutritionists and to non-governmental organizations in five provinces. In addition, they were reviewed in Mothers and Children and requests have now been filled for institutions throughout Latin America.

Implementation of this project continues in two ways. First, through efforts of the project group, the Multisector Nutrition Committee made nutrition education a priority program for the country. This is the first time nutrition education was taken seriously and given this attention. Therefore, the Nutrition Division of the MSP continues to disseminate TWP messages. Second, the NGO community continues the efforts of TWP in the area of infant feeding and child survival. Small-sample qualitative research conducted by Catholic Relief Services indicates the following TWP messages are now well accepted and practiced, at least in the provinces studied. The concepts that have had success are: thick (not watery) semi-solids for infants; continue foods during diarrhea; begin semi-solids between four and six months; increase the frequency of meals and the quantity per meal. Because of the success of the mix called *fierson*, the Institute of Technology Research and the National Polytechnical School is carrying out the necessary studies to industrialize its production for mass marketing.

DISCUSSION AND LESSONS LEARNED

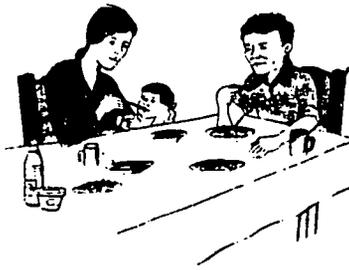
Considering the difficult political and organizational environment in which it worked, The Weaning Project in Ecuador was quite successful during its three years of operation. However, what was accomplished in Ecuador was achieved against tremendous odds. Initially, nutrition was not an interest, either of MSP or USAID. The focus of the child survival activities were immunization and oral rehydration salts. When the new Minister of Health was appointed, with interest in nutrition, the child feeding project became an important focus. However, each step in the project was difficult because of the numerous personnel changes and the fact that the people taking the lead in the project were not placed within the Division of Promotion and Protection where operational decisions were made. Another difficulty was that the money to finance the implementation was never committed from any agency ahead of time. At the beginning, the expectation was that TWP would conduct research, formulate an overall strategy, and assist the child survival project with its communications work in young child feeding. Implementation per se would be a part of the Child Survival Project. Because of delays in

conducting the research, when the young child feeding activities were ready for implementation, the structure of the child survival project had changed so much that the project needed to undertake its own development and implementation of activities. Allocating these resources and responsibilities caused additional delays and strains and meant that some ad hoc arrangements were made to get the work done. The achievements of the project and lessons were these:

1. Working with the MSP and private individuals and organizations, it completed the most thorough behavior-oriented research on young child feeding ever done on a national level. A small team of professionals now operating in the private sector offer this assistance to groups in Ecuador and outside the country.
2. Because of this research and continuous advocacy in-country, a new awareness concerning the role of behavior in young child malnutrition was achieved. This awareness influenced the nutrition plan for the country designed by the Multisectoral Nutrition Committee and decisions regarding areas in which support would be sought from multilateral donors.
3. The NGO community has continued activities. The NGO community's projects have a strong network of community volunteers who counsel about and are concerned with young child feeding. Many of the ideas outlined as part of The Weaning Project strategy that could not be carried out between February and September 1989 have been implemented by NGOs with Catholic Relief Services (CRS) taking the lead because the project director from IIDES is now with Catholic Relief Services.
4. The advisory group function was critical to project success. In the future, this group could be open even more to those outside the MSP network, such as the NGOs.
5. Effort should continue on the dissemination of TWP results in Ecuador. However, even more important than the products is to disseminate the process/approach of TWP through training sessions and discussions papers. A member of the project group suggested that it would have been useful for the project to write short notes about its progress and descriptions of its methodology while the project was ongoing.
6. This project has left Ecuador with a strong foundation for future work in young child feeding, particularly in the area of communications to improve household practices related to feeding but also other areas. While details might change in the future, the approach will be sound for some time to come and offers a framework for future projects and to other countries.



**Counselling card: Child 7-12 months old
Gaining weight**



**Counselling card: Child 7-12 months old
Not gaining weight**

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APPENDIX
Radio and Television Scripts

DOCUMENTARY

PART I

The Ministry of Public Health presents:

"THE BEST BEGINNING"

Introduced by: Freddy Ehlers

Today five hundred and fifty children will be born in Ecuador. They represent the hope and the future of our country. But such a reality is not heartening since, as in other Latin American and Third World countries, hope for life and a normal development is relative. Of the two hundred thousand or more infants who are born annually in Ecuador, approximately half, at least 100 thousand, will be born malnourished or will become malnourished in the near future. This is alarming because malnutrition means slow death.

Confronting this problem is among the most difficult challenges of our time. Getting to know the problem is the first step in meeting the challenge.

ANNOUNCER

Every three minutes a child is born in Ecuador, a child who is entitled to a healthy life. But unfortunately this is not always possible.

Malnutrition is not only a result of poverty and social injustice, but also a lack of knowledge about what constitutes a proper diet for an infant.

A malnourished child is a child with an improper diet; that is to say s/he does not receive what is needed in order to grow.

During the child's first year of life, a vital part of the brain develops which, without a proper diet, can suffer irreversible damage that can affect the child for the rest of his/her life.

Dr. Raul Pita

A malnourished child achieves limited development and growth and is thus handicapped in society. If a mother lacks a proper diet during the first months of pregnancy, her child is already born with the results of malnutrition.

Malnutrition worsens during the child's first six months of life due to lack of proper diet.

The principal consequence of malnutrition is brain damage. Also, the immune system of a malnourished child is poorly developed, leaving the child susceptible to illness and death--these children die much more easily.

ANNOUNCER

The problem may begin with the use of the bottle which has replaced an important function: breastfeeding. There is no good replacement for breastfeeding, which is healthy for the mother and vital for the child.

Dr. Fabian Vascony:

We consider breastfeeding essential. We think it is the prime resource for infant health. We have noticed that breastfeeding promotes close contact between mother and child. This is very important. The little one can take advantage of the extremely valuable colostrum. Colostrum is among the more stupendous substances created by nature. It protects a child as he/she emerges from the pure environment of the uterus without bacteria into one already contaminated. The breast milk is the life security of all Ecuadoran children. It is the first resource of infant health.

ANNOUNCER

That is why the child must consume only breast milk during its first four months of life.

This is an experience practiced and lived by mothers that are members of La Leche League.

Sra. De Coronel:

I am an educational psychologist; therefore I am aware of the psychological and emotional need for the child to be breastfed in order to receive skin to skin contact with the mother. These are special moments that make the child feel secure. On the other hand, nutritionally speaking, look at what nature prepared...Nature, if you are a believer in God, has given women breast milk for a purpose, right? So let it fulfill its role. Breast milk is produced in the quantity required to satisfy the baby; that is to say, as the baby feeds, the mother produces an adequate amount of milk. There are many women who think they will not produce sufficient breast milk. But it does not dry up as long as breastfeeding continues regularly.

ANNOUNCER

Breast milk is a child's most important resource for life and health--it is the best beginning.

PART TWO

VIDEO CLIP - Lullaby

Sleep my little one here in my arm
next to my breast where there is no pain.
There is no hunger nor fear,
next to my breast where there is no pain.
Sleep my little one come morning
all the birds will sing to you
The sun that you have rarely seen
with its smile will awaken you.

PART THREE

ANNOUNCER: Between four to six months of life, a supplementary diet should be started.

THE WORKER AND THE THE NURSE AT CEPAM

We are now preparing this dish. As you can see it is nothing special, it has celery, potatoes and a little bit of rice. Now I would like to ask, how do you prepare your child's food?

.....thick.

Very good, why do we prepare it thick?

.....because liquid alone does not nourish us.

Very good. Yes, there is a difference between this water and this food. In this we have nourishment.

So now we are going to show how to prepare the child's food from the food prepared daily for the rest of the family. We take potatoes, celery and, with very little liquid, mash them together for a child four to six months old, right? Right here in this mashed food is nourishment and that is why we recommend at the health centers that you feed this mashed food because it will help your child grow, develop well, start walking rapidly, and begin very good brain development.

ANNOUNCER

It is not necessary to have a special or expensive food, but rather to know how

to feed your child. A few spoonfuls of food prepared daily for the rest of the family is the best beginning.

PART 4

ANNOUNCER

At six months of life, besides breastmilk, the child should start to eat half a small plateful of food three times a day.

Breastfeeding should be continued, ideally six times from both breasts in a twenty-four hour period.

Why are there mothers who stop breastfeeding?

Dr. Andrade

Because someone else recommends that they do so; for example, the doctor or a neighbor recommends powdered milk instead of breast milk. I consider this to be wrong because nothing can be a substitute for natural food, that is to say, breast milk.

ANNOUNCER

The work in the rural areas of the country has begun with promising results. It is about finding practical solutions that will substantially improve infant nutrition.

Sra. Maria Bermudez, Manabi Community

The custom here is, you can cook a chicken, right? And, after boiling the chicken, you prepare the broth, right? Because it is believed that is where the substance of the entire chicken is and it will help make the baby fat and all of that.

We are working with the women and always teaching them that you are not supposed to give only the broth but also the thick or solid portions. If it is cassava, mash it in a little broth so it will be thick, or rice or potato, anything...even green peas...so that it is well mashed and the child is given more than clear broth with no thickness or solids.

ANNOUNCER

Starting at ten months of age, children must eat almost a small plateful four or

more times each day. Breastfeeding can be slightly decreased. The growth of the child indicates that it needs more food---always thick. Semi-solids and pieces from the family pot.

Those who work in primary health care programs know about the problems that affect families in the slums.

Sra. Nidia Hurtado

I work with malnourished children, fighting at all costs to save them from severe undernourishment. That is my work and my ambition. Perhaps I am too demanding because I don't want to see malnourished children in my neighborhood. I am constantly weighing those children who are severely malnourished, but they don't improve. The month the food improves, the children gain weight. It is like a game.

Economist, Ana Delgado

Basically, the problem is that many mothers are the head of the household and therefore must go to work. The children are left alone, many times cared for by older siblings. The mother, many times, leaves the food already cooked, but the older siblings are not careful to feed the smaller ones three to five times daily as required. On many occasions the children are left without any food and they do not eat until the mother returns at night. So, I think the frequency of meals is the fundamental problem.

PRESENTER: Freddy Ehlers

All children grow. The important thing is that they increase the expected weight and height. Don't trust your sight. Weigh and measure the child each month or take him/her to the health center if s/he is not growing adequately because s/he may not be eating properly, or may have another problem the doctor should see. You can monitor your child's growth easily. But, remember: A child who is properly fed is one who grows and a child that grows is one that is healthy.

PART 6

Child's Round (song)

When I came into this world it was with a cry
that very soon became pleasure
Next to my mother's warm breast

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each time I wanted to eat.

At least eight times a day
I must feed from the breast.
The more I drink, the more I am nourished
the more my mother must give.

At four months I am breastfed
and begin the good family food.
All well mashed and thick
because now I can swallow.

They give me food by spoon
the same that my parents eat.
Very little in the beginning
but I will eat more each time.

At seven months it's three meals
More than half a plate each time
I can now eat regular meals
And that way I learn to chew well.

My mother continues to breastfeed me
And I eat more times and better
When my first birthday arrives in a very short time
A full plate will be my portion.

PART 7

ANNOUNCER

The world of children should be a happy one, but there are moments of sadness when children become ill--frequently due to malnutrition.

DR. G. MANTILLA

The sick child obviously has more demands for calories and protein needed for a rapid recovery. A child that has been deprived of food for several days will experience a more serious illness leading to a slower and longer recovery. That is why the mother should insist on giving nutritious meals to her sick child--frequently. She should give foods that are not necessarily expensive but which contain an adequate amount of calories and protein. We can give nutritious cereals like quinoa, rice and others.

ANNOUNCER

At one year of age, the child must become a part of family activities and eat with his parents, brothers, and sisters. The one-year-old child must eat a small plate of food, plus two snacks, three times a day, one during the morning and one in the afternoon. Breastfeeding can be decreased now that the child's basic needs are being met by family food. Little by little, s/he will learn to eat by her/himself, and it is always good if s/he eats with other members of the family. Monthly, the quantity of food should be increased until the child is two years old. At this time s/he should be eating approximately half of the father's portion.

We will win the battle against malnutrition. Let's be sure that in the future they remember our time and our society as one that made possible the most beautiful of accomplishments: to make our country one of healthy children growing with sufficient strength and capacity to build a more just and humane society.

PRESENTER: Freddy Ehlers

Twenty minutes ago this television program began. In such a short time, eleven children have been born in Ecuador, half of them may become malnourished, experiencing a slow death. Of 300 thousand children born annually in Ecuador, half, that is, 150 thousand, may suffer from some degree of malnutrition and its dire consequences unless starting from today, we all do something to change this serious situation. The documentary we have just seen contains several recommendations. It is urgent, indispensable, that the entire country becomes aware of this serious problem. To know how to feed your children is a fundamental part of the solution. All of us, together, in this great crusade for life can go building a future as bright and beautiful as the dreams and hopes of our children.

"The Best Beginning" is a nutritional education program of Ecuador's Ministry of Public Health.

**TELEVISION SPOTS
THE BEST BEGINNING**

Spot 1: Theme - Consistency

Announcer:

Malnutrition may affect the child his/her whole life. To avoid it you must breastfeed your child for at least a year...and at four months begin to feed semi-solids; also. No soups, no broths because they are only water. The nutrients are concentrated in semi-solid food, and the child learns to chew and eat. Remember semi-solid food has more nutritional value.

The Best Beginning: A Nutrition Education Program
from the Ministry of Health

Spot 2: Theme - feeding, growth, and health

Announcer:

During the first twenty-four months of a child's life, very important things occur: your child learns to recognize things, smile, eat, crawl, walk, talk...With the proper feeding your child will grow healthy each month. Monitor its weight to prove it. Start right now it's the best beginning

The Best Beginning: A Nutrition Education Program
of the Ministry of Health

Spot 3: Theme - Proper feeding, frequency and quantity

Announcer: How does a well fed child appear?

Child: I am a well fed child. My mother gave me her milk until I was one year old.

Announcer: And when did you start eating?

Child: When I completed four months of age my mother gave me semi-solids, mashed foods, very delicious. They increased it little by little until I was a year when I ate a full plate of food at each meal. If you eat that way you can be very big, big like me.

The Best Beginning: A Nutrition Education Program
of the Ministry of Health

**RADIO SPOTS
THE BEST BEGINNING**

Spot 1: Initiating Breastfeeding

Control: Newborn Crying

Midwife: Hello godmother, he was born very big.
Mother: Is it a boy or a girl? (sounding very tired)
Midwife: She is a beautiful girl. Hug her.
Mother: My little daughter, How exciting!!
Midwife: And now, to protect your little girl from the start, you can begin by breastfeeding her because your milk is the best food.
Mother: But it seems like I do not have any milk.
Midwife: In order to have milk you must put the baby to your breast to suck right away. In the beginning, the milk will not come out, but later it will. You can give the baby the first milk that comes for it is the best. It helps to clean the baby's stomach.
Father: Thanks, godmother. We agree that it is exactly what we must do.
Midwife: You and your husband remember, the more the child breastfeeds the more milk the mother will have. Have you already thought of a name?

Control: Music

Announcer: Give the baby breast milk from the moment of birth.

Control: Music

"The Best Beginning"

Spot 2: Consistency

Characters: Maria (young mother), Rosa (her godmother and herself a young mother), the driver.

Control: Music, sound of motor running, honking of horn, etc.

Maria: Ugh! Almost missed the bus! Excuse me...excuse me...! see godmother, (in a low voice)...Godmother Rosita! (loud voice).
Rosa: Come, come here by me so we can talk. What a beautiful baby! Very fat, how many months old is it?
Maria: Six months. And yours?
Rosa: Same, but yours is bigger, why is it?
Maria: Do you give your baby a lot to eat?

Rosa: Yes, I give him broth, so he can eat...
Maria: That is the reason why he is so skinny! You must give him semi-solids. I have been giving my baby this since he was four months old. Do as the doctor says. I give him plantains, potatoes...whatever there is at home. All the food is well mashed, because the semi-solids is where there is the nourishment for the baby to grow big.
Rosa: But he said it would stick in his throat if I gave him semi-solid food.
Maria: Godmother, try it, give him the food in small portions, slowly, with patience, and it will not choke the baby...they can eat mashed food without choking.
Rosa: That is exactly what a friend said the other day, but I didn't pay attention to her. Now that I have seen your fat baby that's exactly what I will do.
Maria: Yes, yes! Feed him semi-solids and you will see how your baby will grow strong and healthy. And remember, that in the semi-solids there is nourishment. I am dying, we are almost there. See you later, Godmother! (To the driver) Right here! Stop! Stop!
Control: Sound effect.
Driver: Ahead is the stop.
Maria: These drivers are something else!
Control: Music and series emblem.

Spot 3: Frequency and Amount of Food

Characters: Mamela (young mother), Anita (her friend)

Control: Music, effect of footsteps

Mamela: Anita! The times you choose to appear...where have you been?
Anita: I was working in the city. Keep me company, let's walk to the corner. How big is your baby? How many months old is he?
Mamela: He is already one year and very healthy.
Anita: How fantastic that your baby is well but my sister's baby, who also is one year, is sickly and skinny, has no strength. If you could only see...she always cries and cries and does not know what to do.
Mamela: It is not just luck. My Pedritio has been healthy, fat and strong because since he was four months old, I gave him food along with breast milk.
Anita: Tell me what you are doing so I can tell my sister.

Mamela: I did what the doctor advised me to do: I started with food when he was four months old, and I have been increasing the quantity month by month until now that he is one year old, he eats one full plate of food in the morning, another at noon, and another at night.

Anita: What do you give him to eat?

Mamela: Everything. The same food we eat but well mashed if necessary...you should see how much he eats!

Anita: But doesn't he get indigestion from eating so much?

Mamela: Well, no, four month-old babies need to eat a lot to grow. You should adjust the amount of their food. If there is someone to feed them patiently, babies will eat a lot.

Anita: I will share this with my sister. She must increase the amount her child eats until her child eats one plate of food three times a day when he is one year of age.

Control: Music and series insignia.

Announcer: Remember: for your child will grow up healthy and full of energy, s/he must eat more food each month, little by little, more food each day.

Spot 4: Feeding during Illness

Characters: Carmen, a first time mother, Carmen's mother

Control: music and baby crying

Mother: Carmen, what's wrong with your son? I can hear him crying from the outside.

Control: baby continues to cry

Carmen: Mother, my son has been crying and crying since yesterday. He does not want to eat. I think he is sick, what should I do?

Mother: First try to make your baby eat, and then take him to the doctor.

Carmen: I thought I wouldn't give him anything to eat until he is better.

Mother: Who told you that? It is not like that.

Carmen: But he's not hungry nor does he want my breast.

Mother: That is how it is when the child is sick. But you must insist and give him the breast and something to eat. Haven't you heard the saying: "A sick person who doesn't eat, dies"?

Carmen: But won't food make him worse?

Mother: No, Carmen. If the boy does not eat he will become weak and without strength he will not be able to get better...even if the child is sick, you must continue to give the breast and food.

Carmen: You mean the child needs to eat all the time?
Mother: Yes, especially when he is sick, he has to eat well to be able to recover from the sickness.

Announcer: Feed your child when s/he is ill: it is what is needed besides your care and love.

Control: Music and program insignia.

Spot 5: Health and Growth

Control: Music, sound effects of a fair

Juana: Please hold my daughter while I arrange my basket.

Control: Sounds of arranging the basket and the fair.

Juana: Thanks!

Matilde: Here's your heavy daughter. What are you giving her to eat?

Juana: Yes, my baby is big and fat. I am just coming from having her weighed and she has gained two pounds in the last month.

Matilde: Where do you weigh her?

Juana: I can take her several places, but I take her to the health center each month to weigh her and to feel secure that she is healthy.

Matilde: What happens if she doesn't grow or gain weight?

Juana: It means that you are not feeding her properly or she is sick. You know that a child is healthy when it grows and gains weight each month. Well, I will continue with my shopping. Thanks for holding my baby.

Control: Sounds of the fair.

Announcer: Be concerned about the growth of your child. A child who is healthy gains weight and grows each month.

Control: Music and program insignia.