

### **Background**

This chapter reviews some of the positive experiences and lessons learned in using CBC to improve infant feeding practices over the past 25 years.

Historically, a given nutrition education effort is likely to have been designed by nutritionists, stressing concepts that they felt should be stressed, the audiences that they felt were important to reach, and the media that they felt were most appropriate or popular. Changes began around 1983, when the Government of Indonesia presented the results of the Nutrition Communication and Behavior Change Project. This project demonstrated that by applying social marketing principles to nutrition education, a program could not only improve nutrition-related practices but could also achieve significant changes in the nutritional status of children. These results prompted Alan Berg, in *Malnutrition: What Can Be Done?*, to applaud the effort of the Indonesian government and to point out that this was the first time that a quantifiable change in nutritional status had been measured as a result of a solely educational intervention.

Programs that have achieved important improvements in nutrition practices have followed four general principles:

- The focus was on changing behavior, not just on supplying nutrition information.
- The changes in behavior that were sought were responsive to audience needs. They grew out of very thorough audience research and were not based on a *nutritionist's* perceptions of the audience's needs.
- The solutions needed to use creativity—an elusive but present element in the most successful projects.
- The development and implementation of a comprehensive (not purely communication) strategy was essential.

### ***Case Study: The Weaning Project***

These lessons learned have been applied now in a number of programs, including the Weaning Project, a five-country, five-year project supported by the Office of Nutrition of the Agency for International Development. At a country level, the Weaning Project formed partnerships either with UNICEF, CARE, or with USAID missions, and always with either a Ministry of Health, a Ministry of Agriculture, or a Ministry of Community Development. The Weaning Project's objective was to design and implement low-cost, nutritionally sound, and sustainable solutions to young child feeding problems. In doing so, potential beneficiaries were constantly consulted throughout both project development and implementation. The concepts promoted by the project were defined and refined by the audience. A mostly qualitative research process with several phases was used.

### ***The Assessment Methodology***

The assessment methodology or protocol used in the Weaning Project:

- was *highly qualitative*. It probed parents' aspirations for their children, expectations for child development and maternal self-confidence, in addition organizing actual trials of certain recommendations by families.
- used a *small sample*. Even for a national program—for example, in Ecuador or Ghana—no more than about 150 families participated in the research, and of those, only about 50 participated in-depth.
- was *in-depth*. Time was not spent in talking to a great number of people, but in talking to a small number of people in detail—while observing them prepare food and feed their children—and in discussing and constantly asking why.
- was *rapid*, at least by some definitions. In the first countries, where it was implemented in pilot regions, the process took a year. Later, the time was reduced to six months for a national assessment.

- required *minimum technical assistance*, although it did require a principal investigator with knowledge of qualitative research and child feeding issues.

*Problem identification.* Planners first had to understand the critical problems impeding proper feeding and care of children and to identify resources to solve them. They used focus group discussions, employing, for example, a technique involving the use of photographs of various types of women in order to focus the discussion on mothers' perceptions of what it means to be a good mother and to care for children well. Focus groups were also held with men—in many cases policy makers—from a variety of groups. Researchers interviewed mothers in-depth in their homes, often while participating in the household chores.

*Regrouping and analysis.* The team tried to determine the nutritional benefit or harm of current practices and identified possible modifications in practices and rationales for them. A comparison was made between an "ideal" practice and the "real" practice. Possible behavior-change goals were identified based on this process. The methods involved structuring case histories, reviewing and synthesizing what had been learned. Many people were consulted, until the project team, along with nurses, doctors, and families involved felt that they had come up with a list of potential recommendations.

*Household trials.* The team then returned to the field for what was called *intervention or concept testing* (today known as trials of improved practices or TIPs), to determine the potential for retaining or changing practices and to clarify motivations for change. This involved very specific household trials with mothers, such as adding green leafy vegetables to a porridge in Indonesia—actually cooking with her and feeding her child to see how the child liked the food and how the mother liked the food. The mother was then asked if she would continue to make the food over the next week or two. The researcher then returned to the household to find out whether she had or had not, what she liked or did not like about

the food, and what she had changed. Often, additional focus groups were then held.

This formative research process was implemented in every case by local groups, either Ministry of Health staff or a local market research company. The process was streamlined over its application in five countries and was relatively inexpensive, costing between \$12,000 and \$35,000 in each country exclusive of technical assistance.

### ***Common Themes for Program Strategy Formulation***

In every country, the assessment methodology yielded a wealth of information that provided new insights into infant feeding practices and indicated concrete actions to be taken to improve them. Even though results are generally most meaningful in their country context, the following synthesis of insights appears to be broadly applicable since they emerged from assessments that were carried out in a variety of contexts ranging from the isolated, poor areas of the extreme north province of Cameroon and in Ghana, to the semi-urban areas of Swaziland and Indonesia, to the heavily urban areas of Ecuador and Zaire. Based on the assessments that were conducted, the following general recommendations can be made:

1. *Find a balance between food and practices.* The focus on practices made it abundantly clear that unless breastfeeding techniques and weaning practices were addressed, providing food alone would have a minimal impact. For example, just promoting “breast is best” is not useful when almost all mothers of young babies are already breastfeeding but need to do it more frequently and exclusively.
2. *Target changes in practices.* A number of issues appear to be important in any culture (thickness of food, frequency of feeding, nutrient density, quantity, hygiene, patience and persistence). *Very specific* behavioral recommendations must be developed for each age group

of children, an important step that can only be achieved on the basis of thorough qualitative research.

3. *Do not ignore the first days of life.* Bad practices begin with prelacteal feeding—there was virtually no exclusive breastfeeding in any culture. In addition to traditional and non-traditional prelacteal foods, there is an increasing tendency to introduce foods early to “accustom the child to food,” often because the mother must return to work.
4. *Expect the worst characteristics of the daily feeding pattern in feeding during and immediately following illness.* If mothers give only a small amount of food regularly, they typically reduce the quantity even more during illness. What commonly happens is that mothers try to feed a sick child but give up because the child “just won’t eat.” Mothers want to use patience and persistence in feeding a sick child but are not always successful. There was no concept or practice of recuperative feeding (feeding during recovery from illness) in any of the project areas.
5. *Recognize the extent to which families can do more for themselves.* Asking mothers to try out new practices in their homes indicated places where poverty and/or lack of coping skills were so prevalent that the mother, family, and community could not change their practices enough to have a significant nutritional impact. For example, in a district in East Java, Indonesia, almost all families (90 percent or more) could and would do a lot to improve their practices related to young child feeding. However, in Ghana and parts of Swaziland, around 20 percent of the families had a serious lack of resources. Families in the Extreme North Province of Cameroon and the high Sierra of Ecuador appeared to have an even worse shortfall. Thus, through the household trials planners can learn what to expect if no additional food or economic assistance is given and how to best target any assistance.

All of the assessments showed that the majority of families *could and would* do more to improve conditions for their children. Enabling

people to make the best use of their resources by improving feeding practices became the priority.

6. *Clearly define the barriers to change.* Both “environmental” and “attitudinal” resistances (barriers) were identified. Environmental resistances included unavailability of certain foods and lack of feeding utensils. *The most important environmental barrier that needed to be overcome in each country was health care professionals’ giving misinformation to mothers about child feeding.*

“Attitudinal” barriers included such beliefs as children’s inability to swallow or digest particular foods or preparations. Two key attitudinal barriers to improved practices were:

- *Mothers’ feelings of lack of control.* A woman’s low social status and feeling that she exists to serve her family often means that she lacks the confidence to overcome resistance from her child.
- *Mothers’ perception of being too busy.* Not having time to do the new practices was related to mothers’ feelings that they were too busy and tired more than to real “busyness.”

7. *Pinpoint motivators or enabling factors, i.e., “If my husband told me”; “If I just understood.” “If I had a measuring cup or plate”; “If the food is well cooked, then my child could digest it.”* Two key facilitating factors commonly seen were:

- *The significant role of fathers.* Fathers’ potential contribution has been undervalued, particularly when it comes to purchasing “special” calorie- or nutrient-dense foods for young children.
- *Food vendors and owners of small food shops or stalls.* These individuals are credible and available sources of information related to food purchases.

Once key concepts were clarified and planners reflected on findings from the research—from listening to what people in the communities were saying—the strategies became clear.

### ***Strategy Framework for Behavior Change***

By comparing ideal and real behaviors, and what families indicated they can and will change, and then by examining resistances and enabling factors, planners can lay out the strategy or road map for how to achieve the behavior changes, e.g. increasing the frequency of feeding; adding malt to the child's porridge; or having men stop purchasing infant formula.

In The Weaning Project, although no format was provided for program strategy, each country defined similar areas requiring attention. While the project teams organized the information from the assessments, the overall strategies were designed at workshops with program managers and policy makers representing key programs related to child health and nutrition. These workshops were successful in heightening awareness of young child feeding problems and in achieving a commitment to action.

Below are examples of country project activities under major avenues of program activities.

1. *Legislation*: In Ecuador and Swaziland (national programs), because the widespread availability of milks and formulas was an obstacle to optimal breastfeeding, importance was placed on making into law the Code for the Marketing of Breast Milk Substitutes. But in Cameroon, given the remoteness and small size of the project area in the Extreme North Province, legislation was not relevant.
2. *Training*: In many countries, there were existing training activities with which the project tried to coordinate. However, the need for special training efforts emerged clearly from the research and from discus-

sions with managers of ongoing training programs. Examples of these special training efforts were:

- In Indonesia, a short course on child feeding for representatives of the national women's association was held because they organized monthly community health activities. An orientation was also conducted for small shop owners because they were convenient, had frequent contact with mothers, and often gave or could give advice on child feeding.
- In Cameroon, an orientation on child feeding for community development workers was held because they were the most frequent visitors to distant villages.
- In Swaziland, in-service training for nurses was held because they were well respected, but conveyed much misinformation on child feeding.

Extensive training on counseling techniques for all project and all medical personnel was an important element in each country because they were seen as important sellers of the "product" (improved weaning practices), and needed skills to be good spokespersons.

3. *Communication*: Communication addressed two objectives—promotion of the project and its products and education on basic practices.

Communication strategy planning began with basic decisions on audience. Generally, the primary audience was mothers and principal caretakers because they are the ones who prepare the food and feed the children. The secondary audience of influencers (fathers, children's grandmothers, other family members) were considered almost as important as the primary audience. The tertiary audience were those influencers one step removed from the family—key community leaders, health care workers (both traditional and non-tradi-

tional), and vendors of ingredients for young children's food. Communication for this tertiary audience is in addition to any training that they may also receive as part of preparation for project implementation.

The next challenge that confronted communication planners was how to relay precise and targeted messages about the key specific behavior changes relevant to each audience group (or segment). For example, since the concerns and practices of mothers with newborn infants were much different from those with children in the second year of life, messages and practices for mothers were segmented according to their infants' ages.

The goals of the media strategy were to reach: (1) parents of young children and families with limited resources, either at home or elsewhere, with messages focused on specific behavior changes; and (2) other family members and members of society with more general messages on the importance of child feeding and on a few more general principles. The media used varied tremendously—from the Cameroon project that relied exclusively on community workers, to Ecuador, where mass media (radio and television) played a major role.

### ***Project Activities, Materials, and Products***

The materials that were created also varied greatly depending on local creative talent and budget. The following is a brief overview of the types of materials created, divided into two categories—those focusing on specific behavior changes and those focusing on the image of young child feeding, general principles, and project promotion:

#### *1. Materials to promote specific behavior changes*

- *Sets of counseling cards to aid village or health workers target their messages* were developed in every project. Cards were designed to be used primarily with a growth monitoring program.

- *Reminder sheets for the family and health worker* were used in counseling but remained with the family. In Cameroon, they were mimeographed copies of the counseling card. In Indonesia, the reminder sheet was more elaborate, containing the entire framework for feeding month by month, and served as a checklist for the community worker at the growth monitoring session. It was kept by the mother in between visits, folded in the growth chart.
  - *Radio spots and cassettes were made on key behavior changes.* Radio spots, most in a dialogue format, were used in Swaziland, Ecuador, and to a limited extent, in Indonesia. In Indonesia, a standard character, *Ibu Gizi* (Mrs. Nutrition) was created to be a voice of wisdom who would informally counsel young mothers. Two mothers chatted in all of the Ecuador spots.
  - *Posters* were prepared in all projects except Swaziland. In Ecuador posters were for (1) maternity hospitals, reminding women about early initiation and on-demand breastfeeding; and (2) health centers and doctors' offices, advising families to feed children who were sick or recovering from illness.
  - *Food demonstrations and demonstration guides* were prepared in most projects. The Indonesia and Ecuador projects were the only ones to prepare formal recipe-type guides.
2. *Materials focused on the image of young child feeding, general principles, and project promotion*
- *Name, logo and song:* Local names for each project were selected, plus logos in Indonesia and Swaziland. In every country but Cameroon (where no audio materials were prepared), a project song was created.
  - The project music was all original. In Indonesia, the song was an uplifting, marching-type song, the words sung by a children's cho-

rus. In Swaziland, the song used a traditional music form, the *Umboloho*, sung by a small group of male singers. In Ecuador, two songs were recorded: a lullaby about breastfeeding, and a rhyming song about infant feeding through first two years of life.

- In Cameroon and Swaziland, there was a need for educational materials that were simple and versatile. In Swaziland, a *flipchart* was used by all community-based agencies, including *tingkundtla*, the traditional Swazi government system. Flipcharts in both the Swazi and Cameroonian projects stressed the actions of men, because women complained of the lack of male support, and men themselves said they could pay more attention to child feeding and use family resources more wisely.
- *Cassettes* prepared in Swaziland and Indonesia discussed infant feeding generally, particularly family and community behavior. The tapes in Swaziland were made to be used in *shibens*, gathering places of men. In Indonesia, the cassettes made for the community-at-large were done in dialogue form with Mrs. Nutrition as the spokesperson, someone who could solve child feeding dilemmas. Featuring popular songs, these dialogues were played on tape players at community gatherings.
- *Other items*, such as a supplement in the Sunday edition of the most widely read newspaper and a special book for parents with a newborn, were developed in Ecuador. A play on child feeding and the role of the father was written and produced in Swaziland.

3. *Food product or ingredient*: Emphasis was given to the greatest need: how to improve the common homemade food(s).

- In Indonesia, rice porridge was used as a basis—rice rather than rice flours was stressed plus the addition of common (every day, household ingredients) like *tahu*, green leaves, and a source of fat. The recipe was flexible to accommodate a variety of possibilities—

examples were given using already cooked foods and raw foods to be cooked. The name *Nasi Tim Bayi* was chosen to identify this good infant food because it conveyed that it was soft rice mixed with other ingredients *for the baby*.

- In Cameroon, the problem was that *bouillie* given to children was not calorically dense. Enriched *bouillie* was promoted—made thicker with the addition of milk, egg, or peanut paste. For older children, the use of the adult food required much convincing and proper preparation before it would be considered for a child.
  - In Swaziland, the key problem was that mothers felt the family's corn porridge was too thick for the child to swallow and digest so they diluted it tremendously. Therefore, malt was introduced to thin the thick porridge without reducing its caloric density. Otherwise, traditional Swazi foods were promoted.
  - In the highlands of Ecuador, major improvements were needed in the poor regular diet. The project promoted a special *machica* called *fuersan*—a toasted legume and grain mixture that is traditional but usually not for children. For other areas, regular (semi-solid) family food was promoted, usually based on rice or noodles.
4. *Other activities*: Based on the formative research, other activities were carried out as part of the strategy framework for behavior change in areas such as child care, sanitation, and supplies for measuring food.
- In Swaziland, a key complaint of working women was the poor nutritional care offered by child caretakers. Therefore, the project sought both to enhance the knowledge of existing day-care providers and to encourage the creation of more day-care centers.
  - Also in Swaziland, food hygiene was consistently blamed for childhood illness. Often mothers felt the food itself caused the illness. Hygiene became a priority. A food preparation unit was added to

**Figure 1. STRATEGY for Improving Young Child Feeding Practices**

Communications	Training	Food	Legislation/ Regulation	Other
Public information: general concepts, demand creation, prestige	On-the-job: concepts and communication skills (prior to launch)	Special food made from family pot	Hospital procedures	Products: • feeding bowl • grinders
Education: counseling, group sessions, demonstrations, link with growth monitoring	On-the-job: technical & communications (routine mon- itoring)	Special in- gredients or technologies • malt • fermenta- tion	Breastmilk supplements	Child care
Other: point of purchase	Formal training: curriculum revision	Commercial food: • dry ingre- dients • prepared	Labor laws related to women	Sanitation

the hygiene education materials being developed in another project, and all child feeding materials contained key advice on hygiene.

Because of mothers' lack of the concept of food quantity in both Swaziland and Ecuador, the manufacture of calibrated child feeding bowls to measure food quantities against the necessary intake per meal was proposed.

### **Results**

The Weaning Project was formally evaluated in two countries. The project in Indonesia replicated the results of the earlier nutrition communication

and behavior change project: changes in behavior brought about by the program were enough to cause significant shifts in the nutritional status of children under two years.\* An evaluation in Cameroon also showed major changes in practices.

Materials promoting improved child feeding practices do and should vary by setting. There is no template for them. However, the process of making decisions about them is becoming more standardized, and we know enough now to promote a strategy matrix about improving young child feeding (Figure 1).

We have learned a great deal about how to design and undertake effective actions to improve nutrition. When a situation is examined systematically, when decisions are taken with the project beneficiaries, when a strategy grows from good formative research and is developed into cohesive actions that are culturally sensitive and specific to the situation, programs *can* make a difference for the nutritional status of children.

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\* Yayasan Indonesia Sejahtera (YIS). "Evaluation of the Indonesia Weaning Project." YIS and The Manoff Group: Washington, D.C., 1989