

PDABP-416  
94829

# **FINAL REPORT**

## **NCP**

### **Nutrition Communication Project**

**Nutrition Education and Social Marketing  
Field Support Project**

**1996**

**Academy for Educational Development  
1255 23rd Street, NW  
Washington, D.C. 20037**

**Funded by the US Agency for International Development  
under contract DAN-5113-Z-00-7031-00 (Project #936-5113)**

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# NUTRITION COMMUNICATION PROJECT

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# CHAPTER 1

## OVERVIEW

Margaret Parlato  
Project Director

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The Nutrition Education and Social Marketing Field Support Project, referred to as the Nutrition Communication Project (NCP), represents 7½ years of USAID experience in testing consumer and community-based strategies to improve the nutritional status of women and children. The main purpose of this \$9.5 million project was to assist USAID Missions, host country institutions, and non-governmental organizations throughout the world to create, implement, and evaluate efforts to promote better nutrition using modern communication methodologies.

Although social marketing approaches were first applied to nutrition in the early 1970s, few organizations were applying a consumer-centered approach to changing nutrition behaviors when USAID awarded the NCP project to AED in 1987. Most common then—and presently still so in many countries—are didactic approaches with an emphasis on teaching mothers about the "three basic food groups." The assumption underlying this approach is that providing scientifically correct information will, by itself, lead to changes in behavior and improve nutritional status. But 30 years of experience in public health campaigns has clearly shown that such knowledge-based strategies do not work. Hence, a core objective during the course of the NCP project was to help organizations move towards strategies focused on behavior change and the consumer-realities in which new habits are formed and maintained. NCP operated on the premise that nutrition is composed of deeply entrenched habits reinforced by years of family and cultural tradition, and that changing practices requires a deep understanding of social contexts, as well the circumstances faced by given individuals and families.

Specifically, the project was designed to:

- Develop the technical skills of developing country personnel in using a social marketing methodology to address nutrition problems;
- Test and evaluate nutrition communication strategies and programs; and
- Perform assessments of nutrition information and education needs in support of nutrition interventions.

At the time of the Midterm Evaluation in 1990, the project's central mandate to develop and test new approaches and consolidate experience from past projects was broadened by a fourth project goal:

- Develop state-of-the-art syntheses and special studies for dissemination.

## **Major NCP Activities: 1987-1995**

- Five large-scale integrated communication field programs in Mali, Burkina Faso, Niger, Honduras, and Peru. These programs integrated mass media, interpersonal communications, and institutional skill-building. Each project had distinctive aspects. The Honduras project, for example, was the first national effort to promote exclusive breastfeeding. Niger used a streamlined research and outreach strategy; Mali experimented with using an umbrella communication strategy to guide the field work of ten private voluntary organizations; and the Peru project was based on an interpersonal communication strategy.
- Technical assistance to more than 25 countries. (Mali, Burkina Faso, Niger, Swaziland, Cameroon, Côte d'Ivoire, Togo, Dominican Republic, Guatemala, Costa Rica, Haiti, Bolivia, Peru, Philippines, Thailand, Morocco, Bangladesh, Indonesia, Honduras, Papua New Guinea, Jordan, Kenya, and Sudan).
- 14 formative research studies (Dettwyler, Morrison, Campbell, Brandsteder, Popenoe, Keith, Hung, Kone, Body, Cohen, Booth, Harrison, Zaghloul, Koniz-Booher).
- Capacity-building of IEC teams in eight countries (Mali, Burkina Faso, Niger, Peru, Honduras, Swaziland, and Guatemala).
- More than 4000 individuals trained.
- 11 comprehensive Needs Assessments. (Mali-2, Niger, Burkina Faso, Honduras, Guatemala, Philippines, Bolivia, Haiti, Cameroon, Thailand).
- Regional conferences and workshops.
- More than a dozen special reports for policymakers.
- Seven Evaluation Studies (Mali-2, Niger-2, Burkina Faso, Honduras, and Peru).

## **Partners**

The Academy for Educational Development, as prime contractor for USAID's Nutrition Education and Social Marketing Field Support Project, referred to as NCP, was supported by technical specialists from the following core team of subcontractors:

Porter/Novelli	(1987-94)
Logical Technical Services (LTS)	(1987-90)
Johns Hopkins University	(1987-92)
Wellstart Lactation Management Group	(1987-92)

NCP also worked closely in its programs with other USAID-supported projects such as PRITECH, VITAP, HEALTHCOM, VITAL and the Wellstart Expanded Promotion of Breastfeeding Program. Collaboration with FAO, UNICEF, and WHO's Diarrhoeal Disease Program also took place on a number of important technical as well as programmatic fronts. This helped maximize the impact of scarce nutrition funds and explore ways to integrate nutrition into other program areas.

### **Funding and Policy Environment**

Originally planned for five years (October 1997-September 1992), the project was extended two and a half years, to June 30, 1995 at the recommendation of the 1990 Midterm Evaluation. This was in recognition of the long lead time required to obtain funds for field activities and for the project to become fully operational. Dependency on "buy-in" funds proved to be a particularly serious bottleneck during the initial project years when no central funding was available to launch country programs. All activities were contingent on full funding by the USAID missions and bureaus (including a proportional share of home office costs). It took NCP a full two years to get projects funded and underway.

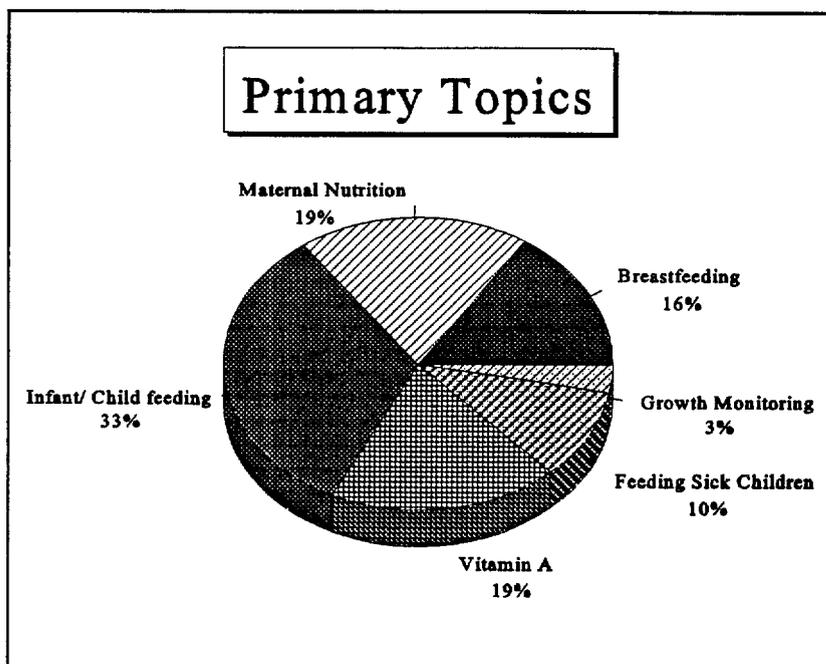
Beginning in 1990, the situation was eased when Vitamin A and Micronutrient earmark funds were made available to NCP for small experimental projects; to carry out evaluations of Mission funded field projects; to conduct regional training activities; and to document lessons learned. This infusion of funds was fundamental to accomplishing the project's broad mandate. It is worth noting, however, that the project team had to deal with funding difficulties throughout the project. Considerable management time was devoted to identifying funding sources and obtaining them; to negotiating collaborative funding arrangements; and to tracking funds from multiple sources.

The low priority accorded nutrition by governments in developing countries and USAID missions was a key contextual factor in which NCP operated. Early on in the project it became clear that improvements in nutrition communication could not take place unless nutrition itself became an issue of importance. In many countries nutrition problems are poorly understood. In addition, decision-makers are typically poorly informed about low-cost solutions to the problems affecting the health and productivity of their populations. In response to this situation, policymakers became a priority audience for NCP early on in the project. Activities to improve their understanding and mobilize their support are discussed in Chapter 4.

## Areas of Intervention

The nutrition topics addressed by the project included: growth monitoring, the promotion of exclusive breastfeeding, optimal infant feeding practices, dietary management of diarrheal disease, overcoming vitamin A deficiency through dietary change, maternal nutrition during pregnancy and lactation, and nutrition as part of PL-480 Title II feeding programs. As can be seen below, activities were, however, concentrated in four areas:

Having the flexibility to deal with whatever public health nutrition problem was of concern to counterpart institutions was essential to effective programming. In most cases, the focal area was selected based on a thorough assessment of the country's nutritional situation and the possibility of tackling priority problems through a communication intervention. The assessment team had to ask itself two questions: is the problem serious? Can it be improved by changes in behavior at the household or community level?



Given the range of technical areas, NCP core staff—specialists in communication and social marketing—used a variety of strategies to bring specialized nutrition expertise into the decision-making process at key design and implementation points. In the early Needs Assessment phase, nutrition expertise was provided largely by subcontractors. As the need for language, country, and technical advisors became more specialized, NCP drew on technical experts from institutions around the world.

A major technical hurdle faced by NCP in developing behavior change objectives and priorities was the lack of clear, agreed upon norms and scientific consensus concerning many of the subjects addressed by country projects. Issues—such as how long breastmilk can be stored without refrigeration and how to safely administer it once stored—had to be resolved before the communication specialists could tell mothers what to do when they had to be away from their babies (a barrier to exclusive breastfeeding in several NCP countries). In order to design communication strategies and keep messages as specific and practical as possible, NCP engaged in frequent dialogue with experts and sought to forge consensus on a number of key technical points identified by the

project. For example, when the first exclusive breastfeeding promotional intervention was being programmed in Honduras in 1990, there were no WHO or other guidelines on when to tell mothers to introduce complementary foods. Although a range of four to six months was widely advocated by breastfeeding experts, communication planners knew they would have a better chance of convincing mothers to hold off on introducing food and water if they could promote a more definite time. Research with mothers had shown that the "four to six months" advice was interpreted to mean better earlier than later. Mothers felt that the range meant it was safer to introduce food earlier rather than later.

To examine this issue and others associated with breastfeeding, NCP brought together a panel of experts. They were able to come to some agreement on four-to-six month issues as well as to answers to questions NCP had to resolve, such as transmission of HIV infection through breastmilk; length of time breastmilk can be stored without refrigeration; and other issues that had come up in trying to identify specific behaviors to promote.

Similarly, in designing communication strategies to improve the intake of vitamin A from food sources, nutrition and food experts were called upon to advise on vitamin loss from different storage and cooking practices common in African villages. How deleterious were current practices and what kinds of improved scenarios could they come up with? In many cases, NCP found that the communication work was out in front of the scientific research. However, given that some scientific questions had not yet been addressed, the program could not always address the behaviors it would have liked, or with the specificity that would have been helpful.

## **Results**

When NCP was initiated in 1987 there was widespread agreement about the importance of nutrition to child survival, but very little evidence about the feasibility of changing nutrition behavior. Results from the field sites indicate that it is possible to change more than initially thought—and, in fact, to have an impact on child growth. Evaluations documented behavior change in all five countries where NCP conducted long-term field interventions. Following are selected examples:

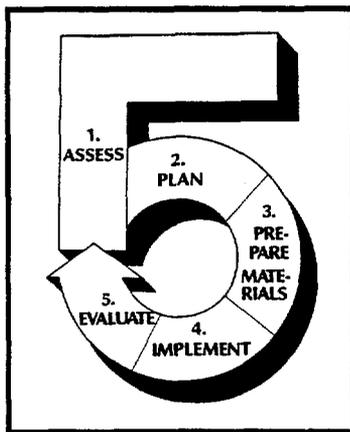
- In Honduras exclusive breastfeeding during the first month of life rose 46% as the result of a national campaign.
- In Niger, women's consumption of vitamin A-rich foods increased by 58%.
- In Peru, postpartum follow-up of mothers showed dramatic improvements in the prevalence of exclusive breastfeeding among those exposed to the educational effort, with 52% exclusively breastfeeding at 12 weeks compared to 8% in the control site.
- In Burkina Faso there was a 20% improvement in the number of children receiving timely introduction of solid foods; and

- From the Mali project, where NCP also measured impact on nutritional status, the prevalence of low weight-for-age was reduced 26%.

Other improvements in nutritional practices were measured. They are presented in Chapter 2. The gains occurred in Latin America as well as some of the poorest countries in West Africa with weak infrastructure and inexperienced implementing agencies. Gains were achieved in national Ministry of Health programs as well as small NGO-operated ones.

### **Evolution of a Social Marketing Approach for Nutrition**

NCP used a social marketing approach. Nutrition Social Marketing, like other marketing efforts for social products and concepts, is based on principles and methodologies derived from market research and the behavioral sciences. NCP used these principles to identify specific nutrition-related behaviors within a wider social context and to develop appropriate messages and materials for target audiences. The involvement of the audience and the broader community in the development and implementation of communication strategies was likewise a hallmark.



NCP used a rigorous five-step process to design and manage its projects: Assess, Plan, Develop and Pre-test, Implement, Monitor and Evaluate.

While drawing on general principles of marketing, four strategies in particular were fundamental to achieving measurable nutrition results:

1. Focus on a limited set of highly specific, do-able behavioral changes. Identifying specific foods and realistic practices is the single most important ingredient for success.
2. Include a strong community component. In most of the countries where NCP worked, health facility staff did not have time to provide adequate nutrition counseling and the target population often had limited contact with them. Having a grass roots presence was key to reaching the population and providing the kind of face-to-face interaction needed for nutrition change. NCP used several models for building a community presence. These included PVO networks; use of extension agents from other ministries; and community theater linked to community radio.
3. Emphasis on reaching as many people as possible. What proved key was finding media packages that were cost-effective and did not strain the management capabilities of counterparts.

4. Focus on skill-building and motivation of counterparts. Since NCP generally operated through short-term technical assistance (rather than through long-term resident advisors) this was critical. Some approaches seemed to work particularly well. Involving nutrition and IEC managers in qualitative research and then making use of strategies—such as role plays—to give them a meaningful role in analyzing results and formulating behavioral targets proved to have high motivational value. In the three West Africa projects, the experience of being part of a broader regional program also stimulated staff.

### **New Set of Hypotheses**

The project worked on a range of different behaviors—particularly breastfeeding, infant feeding, vitamin A, and maternal nutrition. Project experience indicates that each has its own highly specific set of behavioral change issues.

To promote **vitamin A**, for example, the project found that it is best to identify specific foods and practices. Strategies used by the U.S. food industry, which are highly attuned to supply/cost, taste, convenience, and other consumer preferences, work well. This focus has helped re-shape the kind of formative research being done.

To promote **exclusive BF**, NCP found it is best to tackle the problem incrementally, first discouraging the most dangerous behaviors, while gradually building new concepts about breastfeeding. Starting by discouraging giving water along with breastmilk offers a particularly good inroad.

**Complementary feeding**, more than any other behavior, appears to require time-intensive interpersonal contact.

Project experience with **maternal nutrition** suggests that the obstacles to change are varied and go way beyond attitudes and practices about diet. Breakthroughs may come from focusing on strategies that deal with a wide range of areas including women's social status in the family; household food insecurity; and other issues related to household dynamics. A number of promising strategies were tested under NCP. Much remains to be done.

Evidence from the NCP projects, suggests that different media strategies are needed to deal with each of the different behavioral clusters. In particular, the mix of mass media and interpersonal communication required may vary—which has major cost implications. Two examples:

Vitamin A programs, which focus on dietary diversification, have much in common with strategies to shift consumer preferences for foods. A heavier reliance on mass media may work.

On the other hand, it looks as if infant feeding demands a totally different strategy, with heavy reliance on face-to-face counseling. This probably can happen best at the community level.

### **Selected Program Achievements**

NCP staff and partners carried out a range of notable field, research, and policy activities. They also worked on a number of central issues throughout the course of the project which have added to our understanding about improving nutrition behavior. Following is a representative sample:

- Establishment of ethnographic and market research as ways to understand social norms, economic and time constraints to behavior change, and the role of gender in food production and family food resource allocation. Understanding of these issues was fundamental to development of realistic behavior change strategies. Important contributions were made to simplifying and standardizing these methodologies for different kinds of nutrition interventions (i.e., vitamin A, breastfeeding, and infant feeding).
- Synthesis of lessons learned including guidelines on designing breastfeeding and vitamin A promotion programs; review of growth monitoring and infant feeding issues; use of village drama; and operational issues in managing nutrition social marketing programs.
- Multi-pronged efforts to build social marketing capability in regional institutions as well as in organizations providing technical support in nutrition. This led to the development of degree courses in social marketing at INCAP, the regional nutrition institute for Central America; the strengthening of CERCOM in West Africa through teamed technical assistance to the region; the creation of training courses in social marketing for the Peace Corps and PAMM; and a series of courses for headquarter staff of leading private voluntary organizations involved with food and nutrition.
- Creation of the "Learning to Listen to Mothers" approach to improving the skills of front line health workers. Based on field tests in Africa, Asia, and Latin America, the fundamental principle is to tailor the behavior change strategy for each person being reached.
- Design of an interactive computer model—PROFILES— as part of a broad strategy to reach and influence policy makers about investing in nutrition. Advocacy programs built on examining the economic impact of poor nutrition and the cost-benefit to society of addressing the problem.
- Test of various media channels. Traditional village drama in West Africa was found

to be a cost effective and powerful way to reach villagers. Adding a story-line to counseling cards helped model the desired behaviors by providing a graphic example of the specific actions. Broadcast of village drama performances was found to boost coverage of this popular traditional form of communication. And, use of stickers helped mothers gain the confidence to ask health workers for information and also gave them increased credibility when negotiating with their husbands for increased food budgets.

- Development of a comprehensive breastfeeding reference manual, the first of its kind for low-literacy community level counselors. The manual is being printed by UNICEF for distribution throughout Latin America.
- A series of policy efforts and country experiments to find ways to link nutrition to politically "stronger" child survival interventions such as ORT.

## **The Future**

Based on the NCP experience and experience of other projects, it is evident that communication programs can have an impact on behaviors and nutritional status. As for the future, programs will need to focus on understanding more about different nutrition behaviors, on cost-effective media strategies for each; and on the duration of time it takes to bring about sustainable behaviors in each of the nutrition areas.

## **Organization of this Report**

The report is divided into six parts. Following this introduction (Chapter 1) are separate chapters describing each of the main NCP components. Chapter 2 presents Country Project activities and evaluation results. Chapters 3-5 cover Training, Policy Activities, and State of the Art Syntheses. The final chapter contains a synthesis of lessons drawn from the project over the past eight years.

## CHAPTER 2

### COUNTRY PROJECTS

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This chapter summarizes the communication strategies and final evaluation results from six country projects carried out by NCP: Mali and Burkina Faso which focused on improving infant feeding practices; Honduras and Peru which promoted exclusive breastfeeding; and Niger which explored ways to increase the production and consumption of Vitamin A-rich foods. A sixth project, the Sudan Weaning Food Project, was terminated in mid-stream due to a rupture in political relations between the Sudan and the USA. Results from the first Sudan project phases are presented here.

Each project was unique in terms of the institutional context in which it was carried out, the mix of media and interventions utilized, and its overall impact on nutritional habits. Results and lessons learned from each project are discussed separately. However, there are a number of broad conclusions which can be drawn from the combined experience of these comprehensive, long-term interventions. These are as follows:

1. The projects demonstrated that significant improvements in a broad range of nutrition behaviors are possible, even in impoverished communities.
2. Experience from each of the projects underscores the critical importance of making sure that interventions:
  - o Identify specific, action-based behaviors that are realistic given the audience's time and economic constraints and their preferences.
  - o Ensure that the target population is frequently exposed to the messages.
  - o Carefully select a mix of media. Interpersonal and mass media channels should be examined to calculate how many people can be reached and how frequently. Realistic assumptions are required about the program's ability to reach a potential audience. Most programs need a combination of interpersonal and mass media strategies to be effective.
  - o Provide regular supervision, retraining and management support to interpersonal communication staff once they have been trained. As discussed below and in further detail in the project write-ups, a large percentage of project budgets are devoted to training and outfitting health workers with support materials, but relatively little attention is given to follow-up .

- o Segment audiences more. Increased attention to differences among groups and then selection of the right medium and content level for each audience pays off. This critical aspect of strategy development is often treated in a very routine fashion, with pat responses to which media to use for a particular audience.
  - o Long-term effort is needed to sustain behavior change and begin to create new social norms.
3. Interventions which rely on health facility personnel for delivery of nutrition behavior-change information are limited in what they can accomplish. Mass media and community outreach components play a crucial role in improving impact. This appears to be especially important for infant feeding practices.

A comparison of the Mali and Burkina Faso projects is telling. Although both projects used a similar communication strategy and shared training modules as well as support print materials, the projects used very different interpersonal communication delivery mechanisms. The Mali project, executed by 10 PVOs, trained community-level workers to talk to mothers about the target complementary feeding and maternal nutrition behaviors. In Burkina Faso, the project, depended upon facility-based Ministry of Health staff. Although both sets of health workers were given similar training and the same set of support materials, the health agents in Burkina did not have the time or mobility that their counterparts in Mali had. The potential to reach mothers and other target groups was limited to those who came to the facilities. Furthermore, the daily routines of facility-based health workers did not make it easy for them to incorporate nutrition counseling and other educational activities. The final results from the two projects are not surprising. Important changes in infant feeding practices were achieved in Mali. Children exposed to the intervention were on average one half a standard deviation better off in terms of weight-for-age than children not exposed. By contrast, only modest changes in knowledge were measured in Burkina Faso, with little change in behavior.

Results from the Honduras project support the conclusion that changes in nutrition behavior at the household level require a broad based message delivery strategy, that reaches outside the health facility. Radio played a pivotal role in getting the message out and changing breastfeeding practices indicating that intensive face-to-face contact may not be essential for all nutrition behaviors.

4. The findings from all five projects that were evaluated suggest that greater attention to supervision and management of health worker activities is needed to ensure that new concepts and practices covered in training actually get incorporated into the routine activities of health facilities. It is clear that projects need to do more than just train health workers and give them good support materials. In both Honduras and Peru, for example, improved knowledge of health workers about breastfeeding and counseling skills did not always translate into more

frequent or more effective counseling of mothers. There is much still to be learned about what constitutes a feasible nutrition education intervention in different health facility settings. How patient flow and job responsibilities can be changed to accommodate nutrition counseling is also an area where further operations research could yield useful guidelines. And more needs to be learned about what are the most useful print/support materials for different situations. The new Integrated Case Management protocols being developed by WHO and BASICS offer an excellent opportunity to improve the frequency and quality of nutrition information reaching patients.

5. Project results confirm findings from other social marketing projects that sustaining the conditions necessary for behavior change -- and sustaining behavior change itself -- requires a long term investment. A follow-up evaluation in Peru conducted 16 months after completion of the intervention demonstrated that while important changes in breastfeeding practices had occurred in the intervention hospitals as a result of the intervention, the facilities continued to experience problems. Health personnel had inadequate knowledge of lactation management and encountered limitations on breastfeeding counseling to mothers.

The importance of sustained effort is demonstrated by the Niger Project. Among the villages that participated in both phase I and phase II, improvements in knowledge and practices were significantly higher than those which had participated in only one phase.

6. Entertainment formats are immensely popular and can be powerful ways of introducing new concepts, information and skills to the target audience. Production of such media products, however, requires a great deal of talent and experience as well as technical backup. In West Africa, where until recently "messages" meant propaganda, radio producers who worked with NCP on designing radio dramas had real difficulty in understanding how a program could be both entertaining and educational. Communication planners wishing to use this approach in countries trying the approach for the first time, need to be willing to invest the necessary time and resources to obtain a good product.
7. Counseling cards, which permit giving a short, individually-targeted message to each mother or father are particularly well suited for use in health facility education situations. By virtue of their simplicity, counseling cards also serve as important visual reminders of key behaviors being promoted, for project staff and creative personnel developing mass media and print materials.
8. Creation of print materials suitable for regional use can save time and money. Projects in Mali and Burkina Faso used the same basic support materials for health workers. Research found that the basic messages were similar in each country and that they required only minor artistic adaptation to get the point across in each country.
9. Using national project staff in the 3 West Africa projects as consultants to other projects in the region worked well. Not only did this "Peer TA" approach allow NCP to take the best

ideas from one project and transfer them to others, but it provide strong motivation to project teams and took away some of the resentment over using "foreign" consultants.

10. Beginning with a short, highly-focused pilot project, such as NCP did in Niger with the Vitamin A Mini Project, offers numerous advantages in situations where the counterpart team is inexperienced. Staff can quickly gain practical understanding of the communication planning process; have the gratification of seeing media products; and also obtain quick feedback on what works and doesn't work.

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## BURKINA FASO<sup>1</sup>

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### Nutrition Education in a Family Health Program

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Peter Gottert  
Doumba Parfait  
Claudia Fishman

#### Overview

The Burkina Faso Nutrition Communication Project was designed to address the poor nutritional status of young children and women. In rural areas one third of children under five have low weight for their age and a third are stunted reflecting chronic malnutrition. Women likewise suffer from



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<sup>1</sup> Academy for Educational Development (AED). *Final Report: Burkina Faso Nutrition Communication Project*. Washington, D.C.: AED, June 1995.

Setzer, James C. et al., "Knowledge, Attitudes and Reported Practices: Evaluation of the Nutrition Communication Project as Implemented by the Ministry of Health and Social Action." Atlanta: Rollins School of Public Health, Emory University, June 1995.

malnutrition with 16% having low body mass indexes. The six-year project (1989-1995) was a comprehensive, intensive initiative to educate parents about specific actions they could take to improve their children's nutrition, beginning with the mother's diet during pregnancy.

The Ministry of Health (MOH) implemented the project with technical assistance from the USAID-funded Nutrition Communication Project (NCP) of the Academy for Educational Development. It was carried out as part of the bilateral Family Health and Health Financing Project (FHFF). The total budget was US\$1 million.

The project had two major components:

1. **Development of prototype materials in three provinces.** During 1989-90, NCP conducted a pilot project to develop materials to be used in training and counseling in three provinces of about 900,000 people. The materials development process included formative research and the testing of both messages and materials. These activities cost US\$276,000. Although USAID's geographical scope within Burkina Faso was altered, and expected follow-on promotional and training activities did not take place, the materials served as prototypes for the bilateral FHFF project.
2. **Comprehensive behavior change program in eight new provinces.** During 1990-95, NCP shifted its focus to eight new provinces that had been designated for USAID assistance. These provinces, which are dispersed throughout the country, have a total population of approximately 2.5 million people, who speak three different local languages. In these provinces, NCP conducted an integrated communication program. The strategy relied heavily on counseling and group talks by health workers; radio spots and a drama series were broadcast as well.

Because the project was carried out under a tight timetable set by USAID's decision to close out operations in the country in 1995, the project used a variety of strategies to jump-start activities. This included using approaches and print materials developed in neighboring Mali and Niger as well as MOH staff exchanges between the countries. Total costs for this project component were US\$723,947.

NCP also collaborated with Helen Keller International (HKI) and the MOH to support the social marketing component of a vitamin A deficiency control project implemented in the north of the country. In addition, a school nutrition education component was carried out in two provinces with UNICEF.

## Objectives

The Nutrition Communication Project had four specific objectives:

1. To improve the diets of pregnant and lactating women;
2. To promote consumption of nutrient-rich complementary foods among children under age five, following exclusive breastfeeding for up to six months of age;
3. To ensure that children eat nutritious foods after being ill; and
4. To encourage prenatal visits and attendance at growth monitoring and nutrition promotion sessions at health centers.



An additional priority of the project was to strengthen the skills of central and provincial MOH staff in developing and implementing nutrition information, education and communication (IEC) strategies.

## Research and Formulation of Communication Strategies

In the original three provinces, the project conducted a survey of nutrition-related knowledge, attitudes and practices (KAP) and qualitative research in three sites to identify behaviors amenable to change and optimal messages and media for reaching the community and health workers.

As work shifted to the new provinces, the project repeated the previous formative research in four provinces to ascertain whether the nutritional practices were similar and if the prototype materials were appropriate. The baseline survey confirmed that the overall project objectives, audiences and messages remained on target. It found that most parents were poorly informed regarding the special nutrition needs of children and pregnant/lactating women. Fathers expressed an interest in doing more to improve their family's health and nutrition. Families had the necessary time, food resources and economic flexibility.

The project planners identified mothers and fathers of children under age five as the primary target audience. Mothers play a key role in child nutrition because they prepare most of the family's food. Fathers were also targeted because of their traditional role as primary decision-makers in the household and food providers. Health workers were designated as the main communication agents, with reinforcement from teachers and rural development agents.

## Behavioral Targets



The behavior change strategy sought to promote culturally appropriate "small do-able actions" that most families could afford. For the two main target audiences, project messages promoted the following behaviors:

- **Mothers:** eat more food during pregnancy and breastfeeding; attend at least three prenatal consultations; work less during the last trimester of pregnancy; breastfeed exclusively in the first six months; give children enriched porridge and mashed fruits beginning at six months of age; and make special efforts to feed children who are sick or recovering from illness, especially diarrhea.
- **Fathers:** provide extra foods or more money for food to wives who are pregnant or breastfeeding; help their wives or find others to do the heavy labor during the last trimester of pregnancy; support their wives in attending two to four prenatal consultations; and purchase healthy snacks for wives and children.

More detailed messages promoted specific foods and stressed men's important responsibility in ensuring proper nutrition among family members.

## Media and Outreach Strategy

The project relied heavily on health workers as the major source of basic information about nutrition. Following are the key channels used to communicate the nutrition messages:

- **Interpersonal communication.** The project gave high priority to ensuring that contacts at health centers between mothers and health workers were positive and that appropriate, accurate technical nutrition information was conveyed at that time. To enhance the quality of health worker communication, NCP designed materials to support specific actions and developed an interpersonal counseling approach.
- **Health center talks.** The project developed a series of nutrition education materials to increase the frequency and the quality of health center talks to groups of parents (mainly mothers).
- **Radio.** Radio was included to extend the reach of the overall program, provide legitimacy, and motivate communication agents. The baseline KAP survey found that 69 percent of men and 53 percent of women owned a radio or listened regularly to radio, especially during the dry season.

Three additional secondary communication channels were included to increase coverage and boost the frequency with which the population was exposed to the principal messages:

- **Outreach to men by rural development agents.** Rural development agents promote improved food production techniques to villagers and thus interact informally with large numbers of men. To explore their potential as communicators, the project included them in training sessions and provided them with nutrition education materials.
- **Literacy programs.** For more than a decade, well-financed literacy programs have trained thousands of adults to read their first language. However, they have few materials to read. To meet the demand for materials in national languages, NCP developed literacy books directly from the nutrition flipcharts and incorporated them into literacy programs.
- **Primary school programs.** The health education curriculum in Burkina Faso had not been revised in nearly 15 years. The existing primary school health curriculum emphasized the biological principles of human development rather than practical health actions. Thousands of children leave primary school without acquiring the basic skills needed to raise healthy families. Girls are particularly affected, since they often have their first child only two or three years after leaving primary school. Therefore, in collaboration with UNICEF and HKI, NCP designed and tested a Teacher's Activity Guide highlighting practical, behaviorally-oriented nutrition information in a series of lessons built around the child-to-child approach to learning.

## **Adding Nutrition to Health Workers' Skills**

The project gave high priority to training health workers in techniques for nutrition counseling and conducting group discussions. It also equipped health centers with useful, flexible communication materials that would last beyond the life of the project. At the project's inception virtually all health centers lacked nutrition communication materials. Few staff had received training in concrete ways to help mothers prevent childhood malnutrition. The little nutrition education that did take place had little practical value.

NCP trained central and provincial-level trainers, and then supported a three-year program of skill-building workshops for 500 health workers and a limited number of primary school teachers and agricultural development workers. To implement the training strategy effectively, the project team decided to limit training to 20 health centers in each of the eight intervention provinces. The 160 health centers selected for training represent about 75 percent of all health centers in the project area.

During 1992-94 project staff conducted five training-of-trainers workshops and 48 skill-building workshops. Altogether, 60 trainers, 160 clinic directors, 40 rural development agents, and 40 teachers were trained in a series of three one-week workshops-- along with the health workers. These front-line workers received comprehensive training on commonly encountered nutrition problems, and interpersonal communication skills, including counseling and use of visual aids. Trainees received a supply of high-quality educational materials, including handouts, flipcharts, a poster, a slide show, and tape cassettes with nutrition promotion songs.

Following the workshops, project staff made follow-up supervisory visits to observe the trainees at work. These site visits provided valuable information that was used to make mid-course corrections and redesign subsequent training workshops. For example, project staff found that clinic directors who had been trained in the first workshop series were not providing on-the-job training to their staff; the second series included more front-line health workers. Visits after the second workshop series found that health workers needed more training in using the counseling materials flexibly; this element was added to the third workshop series. The project staff also found that many of the trainees had been transferred to a different post because the MOH relocates up to 20 percent of its field personnel each year; subsequent training sessions were held after new job assignments had been made.

## **IEC Materials**

Prototype materials developed for the initial three provinces consisted of: a play by a Burkinabè theater group that served as the creative basis for most of the subsequent IEC products; a slide presentation for community viewing; a counseling handout; two counseling manuals for health workers; three flipcharts; and two promotional songs.

Additional materials developed for the eight intervention provinces were: two new flipcharts to complete the series of five, with accompanying facilitator's guide and teacher's activity guide; a 20-episode radio drama; 12 radio spots; a family health card (*carnet familial*) with stickers that served as a counseling tool; and a set of four literacy booklets based on the flipcharts, for use in the national literacy program. The flipchart series was designed to integrate nutrition messages into other maternal and child health themes.

Key nutrition messages were reinforced in a 20-episode radio drama based on the theater presentation and 12 different radio spots. The drama and spots were broadcast on the government-run national radio station in the Mooré language from October 1994 through March 1995.

The four literacy booklets helped to extend nutrition education to rural adults. To promote their use, NCP held a one-day workshop on nutrition for literacy trainers in two provinces. Subsequently, the National Literacy Service introduced the four literacy booklets into its village-level courses. UNICEF also used them in its literacy activities.

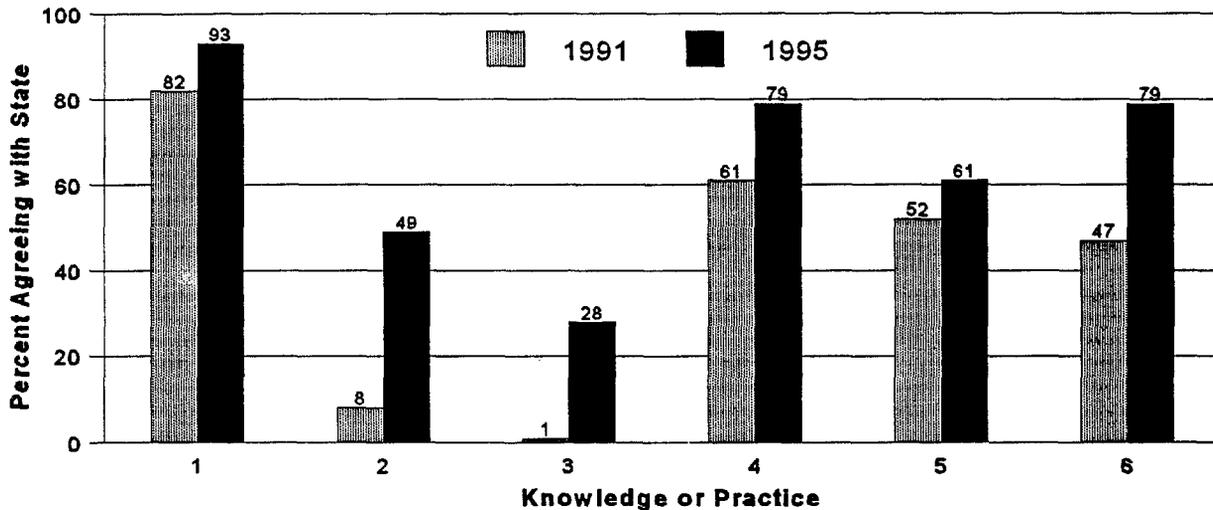
The project introduced nutrition into the primary school curriculum by developing a Teachers' Activity Guide to aid teachers in using the five flipcharts in the classroom. The guide was pilot-tested in 25 schools in two provinces in 1993 and revised after input from the participating teachers. Copies were distributed to all schools in the two test provinces.

## **Evaluation Results**

USAID invested \$46,500 to evaluate the communication intervention. A final KAP survey ( 630 men and women ) conducted in four of the intervention provinces in late 1994, as a follow up to a 1991 baseline (640 interviews) found that more than half the population was reached with at least one source of information. Health-center based interventions reached 55% of the women surveyed and 26% of men. These individuals received nutritional advice from health workers. And, in most cases, the health worker asked questions about nutritional practices and used a flipchart or other visual aid. The family health card was especially well-remembered in the two provinces where it was inaugurated (68% of women).

Radio was also effective in the reaching rural audience, with 41% of Mooré-speaking women and 60% of men recalling hearing the radio drama and spots, broadcast in that language (the majority national language). Most of these listeners could recall the radio drama storyline.

## Changes in Nutrition Knowledge and Practices in the Sample Population



**Key:**

1. Believe that children need to be encouraged to eat even when they don't want to
2. Recommend fruits and vegetables for pregnant women
3. Recommend fruits and vegetables for nursing women
4. Believe father should concern himself with child's diet
5. Introduce solids between 4 - 6 months
6. Wean after 24 months

Overall, nutrition-related knowledge, attitudes and behavior improved in the intervention provinces. Parents who had been exposed to the campaign messages demonstrated significantly higher levels of knowledge and also reported a greater number of positive health and nutrition practices when compared to individuals not exposed to the intervention. For example:

- Men whose wives saw NCP media, or who were exposed to the media themselves, brought home twice as many of the healthy foods promoted, as men not exposed. Women who recalled health workers using visual aids were more likely to purchase healthy foods and to consume them themselves, than those who had no interaction about nutrition.
- Listening to the radio programs is significantly associated with increases in (1) health center attendance, (2) making 3 or more pre-natal visits, (3) men providing money to their wives for the foods promoted, and (4) sharing nutrition messages with others.

The more media seen by respondents (5 channels were tested), the higher their scores on survey questions of knowledge and reported behavior

However, some key messages did not appear to be well assimilated, suggesting that parents would have benefitted by greater exposure to the messages. Because of delays in project implementation, radio and sticker booklets were introduced only a short time before the evaluation survey was conducted. The final round of training workshops was completed one month before the survey, suggesting that the full impact of the communication program was not yet realized.

Interviews with 47 front line health workers conducted as part of the evaluation found that 90% had a full set of flip charts and 75% had attended the last training. However, because of transfers, only 43% had attended all three training events.

## **Institutional Development**

The Family Health Division of the MOH managed the project. NCP arranged for part-time resident consultants to provide oversight and technical assistance. A Burkinabè accounting firm handled project disbursements for training and materials production. This arrangement enabled the MOH to take full responsibility for project implementation while fulfilling NCP's need for timely reporting and sound fiscal management.

In the process of implementing the Nutrition Communication Project, MOH staff at the central and regional levels gained extensive experience in all aspects of communication work, including needs assessment, field research, materials development, training, mass media programming, supervision, and evaluation. A 1993 external evaluation of the Family Health and Health Financing Project concluded that "project objectives in terms of studies, training and materials development have been met or surpassed in spite of the usual constraints faced by the Ministry. It is a good example of the development of management skills in Ministry staff as a result of their taking responsibility for a program's operation." (Devres, Inc.) The MOH has established a National Nutrition Center to continue the project's work. Thus, NCP's emphasis on capacity-building is likely to have multiple, long-term payoffs as nutrition messages and products continue to be disseminated and communication methodology is applied to subsequent campaigns.

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# HONDURAS<sup>2</sup>

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## Breastfeeding Promotion Project

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Patricio Barriga  
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### Overview

The Honduras Breastfeeding Promotion Project (1990-93) was developed in response to the persistent problem of poor infant feeding practices. A national survey in 1987 found that 79% of infants were given supplemental fluids before two months of age; 74% were receiving other milks and food. The Ministry of Health (MOH) identified promotion of exclusive breastfeeding as its highest nutritional priority.



**En los primeros seis meses, sólo leche  
materna e nada más**

To provide technical support to the MOH, USAID/Honduras requested assistance from the Nutrition Communication Project (NCP) of the Academy for Educational Development (AED). USAID provided US\$746,000 for a four-year nutrition communication project; UNICEF contributed an additional US\$50,000.

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<sup>2</sup> Academy for Educational Development. *Final Report: Nutrition Communication Technical Assistance to the Ministry of Public Health of Honduras*. Washington, D.C.: AED, June 1995.

Baume, Carol A. et al. *Prácticas de la Lactancia y el Destete en Honduras*. Baseline Study. Academy for Educational Development, Nutrition Communication Project. 1991.

Hernandez, O. et al. *Assessment of the Impact of a National Intervention to Promote Exclusive Breastfeeding in Honduras*. Washington, D.C.: Academy for Educational Development, February 1995.

## **Honduras**

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The Project was implemented by the MOH Division of Health Education with the collaboration of the Division of Maternal and Child Health and the Directorate of Food and Nutrition. The project had four interventions: (1) training for facility-based health personnel and the community health agents that they supervise; (2) visual aids for health workers; (3) print materials aimed at mothers; and (4) radio broadcasts. It was originally planned as a pilot study in two health regions of the country, but prior to implementation the MOH decided to extend its coverage nationwide. Thus it covered all nine health regions, with a target population of about 1.2 million women.

### **Objectives**

The project had two major objectives:

- To increase exclusive breastfeeding in the first six months of life; and
- To improve health workers' knowledge and skills needed to promote optimal breastfeeding more effectively and to motivate them to be more active in breastfeeding promotion.

Although the training of traditional midwives to educate women about breastfeeding was recommended to the government as a priority area for action, this was not taken up until recently.

### **Research and Formulation of Communication Strategies**

In order to design project objectives and messages, the MOH conducted focus group discussions and in-depth interviews with mothers, fathers and health workers in 1990 and early 1991. The purpose of this research was to understand why mothers were introducing water and other liquids at an early age and to identify behaviors that would be amenable to change through campaign messages. Knowledge, attitudes and practices surveys of 700 mothers and 450 health personnel also contributed to message formulation and provided a baseline for later evaluation of the project.

These studies found that the concept of exclusive breastfeeding was not well understood or accepted by mothers or health workers. Mothers were accustomed to supplementing breastfeeding with water, teas, milks, and other liquids from the first weeks of life.

The project planners identified three major target audiences: pregnant and lactating women, facility-based health personnel, and traditional birth attendants working in the community.

## Messages

The 21-month promotion effort focused on the concept of exclusive breastfeeding, using the slogan "Only mother's milk and nothing else in the first six months of life." Messages emphasized: not giving water, teas or other foods in the first six months; and introducing appropriate weaning foods at six months of age. Mothers were encouraged to continue breastfeeding for two years.

## Integration of Breastfeeding into Child Survival Training

The MOH included breastfeeding promotion in its five-day integrated child survival training program conducted during 1992 and 1993. Following a cascade approach, the project trained some 80 national and regional-level trainers, who then replicated the training at the health area level. Health area officials were then responsible for training staff in health centers and posts, who in turn were charged with training local traditional birth attendants and community health promoters. In all, some 1,200 health workers, more than half of all primary care providers, received 3-5 hours of training on the government's new norm that extended the recommended period for exclusive breastfeeding from four to six months.

## Educational Materials

To facilitate communication with mothers and remind mothers and health workers of the key messages, the MOH developed a range of print materials and visual aids. These materials included: a promotional poster, a calendar, a small cardboard flipchart for one-on-one communication, a large cloth flipchart for group talks, a guide for using the flipcharts, a mini-reference guide on breastfeeding support aimed at health personnel, and a comic book intended for mothers. These materials were distributed nationwide during 1992 and 1993.

During 1991-93, six radio spots were broadcast on national and regional radio stations in three campaign waves. The spots were broadcast nearly 42,000 times altogether. Eight one-hour national broadcasts of a popular listener call-in program on health were also dedicated to discussion of breastfeeding issues in mid-1992.

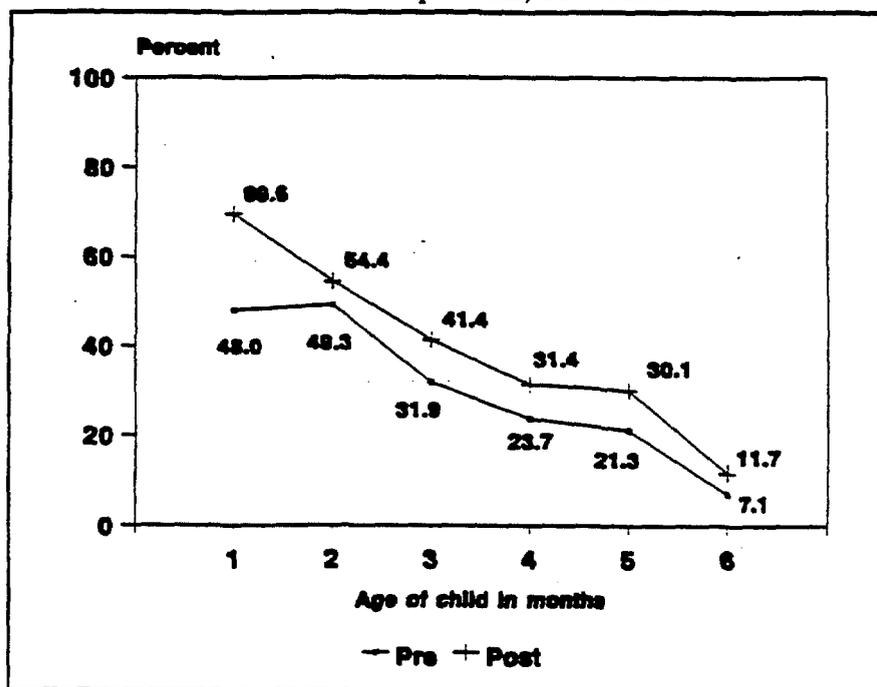
A theater group, Garbo Hispano, developed a popular play addressing breastfeeding and gave 56 performances in Tegucigalpa, reaching about 20,000 people.

## Evaluation

The USAID Office of Nutrition invested US\$150,000 and UNICEF another \$50,000 to conduct a formal evaluation of the 21-month national breastfeeding promotion campaign. A baseline KAP survey (700 women and 450 health workers) was carried out in three health regions, in February-April 1991 and a follow-up survey in two regions, in May-June 1993 (554 women; 419 health workers). Key findings are:

- Prevalence of exclusive breastfeeding.** The campaign did increase the practice of exclusive breastfeeding through the first six months of life. Among children up to one month of age, 70 percent were exclusively breastfed after the campaign, compared with 48 percent before the campaign. Among infants aged 2-6 months, exclusive breastfeeding prevalence was significantly higher after the campaign, compared with the baseline level. Mothers who scored high in knowledge of optimal breastfeeding practices had higher levels of exclusive breastfeeding than those with low scores in breastfeeding knowledge.

**Exclusive Breastfeeding By Age of Child  
Pre-Post Comparison, All Cases**



- Decrease in intake of water and other non-milk liquids.** The rise in exclusive breastfeeding appears to be mainly the result of mothers not giving their infants water and other non-milk liquids. At six months of age, the use of water

## Honduras

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declined by about 17 percentage points (from 78% at the pre to 61% at the post), and the giving of other non-milk liquids (e.g. sugar, water, broths) dropped by 18 percentage points (from 26% to 8%). The prevalence of giving cow's or powdered milk and solids each declined by about 10 percentage points.

- **Training of health workers.** The coverage and quality of the training appear to have varied significantly by area. Fewer health workers were trained than expected, evidently because the training plan was not systematically applied to community-level workers in one of the two regions evaluated. In one region 75 percent of the health workers reported receiving training in breastfeeding promotion, while only 32 percent did so in the other region. Trainers did adhere to the model curriculum.
- **Knowledge of health workers.** After the campaign, health workers were significantly more knowledgeable about breastfeeding, especially the importance of exclusive breastfeeding in the first six months of life. Service providers were also more knowledgeable about the revised MOH norm extending the recommended period for exclusive breastfeeding to six months. Training, as implemented, played little or no role in this improvement. The study found that access to posters and the flip charts seems to have had wider impact on their knowledge than the reference guide designed specifically for health personnel. Radio may have been a source of information, although the evaluation did not study exposure levels.
- **Availability of print materials.** The project provided breastfeeding materials to MOH facilities. Facility-based health workers reported having more print materials, specifically citing the new poster and flipchart. The overall supply of materials in each region was, however, not as high as had been originally planned, due in part to the decision to extend the intervention nationally rather than limit it to two regions.
- **Exposure to media and counseling.** Overall 65% of women were exposed to print materials, 46% to radio and 38% to interpersonal messages from the campaign. The poster and radio spots, were especially effective. Nearly half of the mothers had heard the radio spots, and 52 percent of these listeners could spontaneously recall the campaign's main slogan. However, although most mothers reported regular contact with health workers, especially in prenatal visits to MOH facilities, the mothers reported that health workers seldom discussed breastfeeding. Few had participated in the group talks on breastfeeding.
- **Exposure and knowledge gains.** Exposure to the radio broadcasts proved to be strongly associated with higher scores for mothers on virtually all knowledge items, underscoring the striking effect that radio had in improving mothers' knowledge. Because the main print material seen by mothers was the poster containing only the campaign slogan, it

is likely that knowledge effects found to be associated with exposure to print materials were actually the result of simultaneous exposure to radio. Counseling by health workers, either individually or in groups, seems to have had little impact on mothers' knowledge. Future projects, will need to determine if better training approaches can improve this situation.

**Exclusive Breastfeeding by Age of Child and by Knowledge Level of Mother at Post Measurement**



- **Knowledge Gains** There was a difference in exclusive breastfeeding between high and low knowledge mothers, which further strengthens the case for the positive impact on breastfeeding practices of interventions that improve mothers' knowledge. Between four and five months, the percentage of mothers practicing exclusive breastfeeding actually increases, in sharp contrast to the trend seen among low knowledge mothers. This rise in exclusive breastfeeding prevalence is noteworthy in that the upturn occurs precisely at the age most affected by the new MOH norm. This suggests that the intervention was successful in communicating to mothers the importance of extending exclusive breastfeeding beyond four months to six months.

### **Institutional Development**

The long-term effects of NCP assistance to Honduras are evidenced by the institutionalization of nutrition communication methodologies among central and regional MOH staff. Regional MOH staff have demonstrated their ability to plan and manage communication campaigns and to apply techniques such as focus group discussions, in-depth interviews, behavioral analysis, and audience

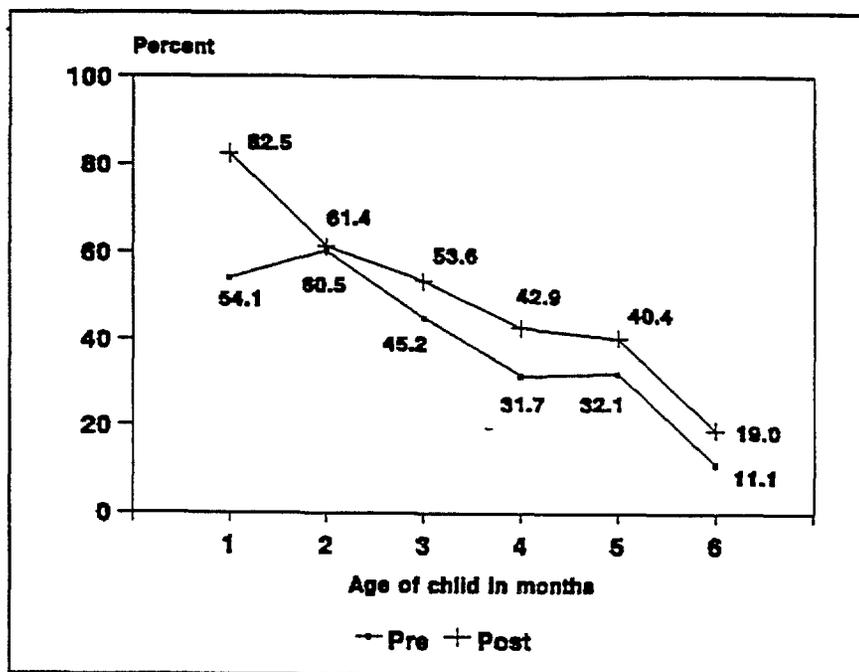
## Honduras

segmentation to the development of new communication activities related to growth monitoring counseling, AIDS, and micronutrients. In 1995, the MOH Health Education Division began applying NCP's rigorous communication planning methodology to the topic of infant feeding.

### Lessons Learned

- The Honduras project demonstrated that identifying specific breast-feeding related behaviors to promote yields positive results. The focus on eliminating the practice of

**Exclusive Breastfeeding by Age of Child  
Pre-Post Comparison, Region V**



giving water and other liquids during the first six months worked well as a conceptual entry point to get mothers to begin eliminating other harmful practices. Since it is not feasible to address all harmful practices at once, communication strategies should target a limited number of practices which are the most harmful and yet amenable to change.

- The impact of radio on mothers' knowledge and practices underscores the value of repeated transmission of key messages through multiple campaign waves, instead of "one-shot" approaches.
- The five-day integrated child survival training model for health workers used in Honduras was difficult to replicate at the local level. Training which integrates a broad range of topics may require alternate training approaches and well-structured follow-up in order to have impact, especially if several new content areas are introduced.
- In view of the limited practice and effectiveness of breastfeeding promotion as part of routine patient-health worker encounters in health facilities, future interventions should explore in more depth the constraints to counseling which exist in many primary care settings (e.g., patient flow, task allocation, time availability) to develop alternatives to the traditional health talks and unstructured patient education which often predominate.

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# MALI<sup>3</sup>

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## Integrating Nutrition Education into Child Survival Programs

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Peter Gottert  
Claudia Fishman  
Dandara Kanté  
Robin Anthony



### Background

Mali is a landlocked West African country with a population of approximately 9.2 million. Located in the Sahel, climatic conditions are a chief cause of poor nutrition and health. Recurring droughts have regularly decimated herds of cattle and goats and destroyed millet and sorghum crops, the main dietary staples. Infant mortality is extremely high at 170 per 1000 live births; maternal mortality is 2000 per 100,000 live births. Seventy percent of infant and childhood deaths are attributed to malaria, measles, tetanus, respiratory diseases, diarrhea, and malnutrition, all

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<sup>3</sup>Academy for Educational Development. *Final Report: Mali Nutrition Communication Project*. Washington, D.C.: AED, May 1995.

Fishman, C., Golaz, A., *Knowledge, Attitudes, Reported Practices, and Anthropometric Indicators of Children's Nutritional Status. Impact Assessment of the Nutritional Communication Project as Implemented by the Ministry of Health, Africare, Solidarity and the Elderly, Save the Children, and World Vision in Dioro, Kolondieba, and Koutiala*. Washington, D.C.: AED, December 1995.

Fishman, C., Kanté, D. *Trip Report: Baseline KAP Survey for Vitamin A and Nutrition Activities*. Washington, D.C.: AED, March 1990.

## Mali

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preventable diseases. According to the 1987 National Demographic and Health Survey, the proportion of children 3-36 months showing signs of acute malnutrition (weight for height) was very high at 11% and chronic malnutrition (height for age) was about 25%. In Bamako, the capital, 15% of birth weights were below normal. Particularly in the north, vitamin A deficiency is a serious problem, with night blindness prevalent among 9.48% of six- to ten-years olds.

## Overview

The USAID-funded Nutrition Communication Project (NCP) in Mali was designed to address the poor nutritional status of rural women and children through collaboration with ongoing health programs and an integrated approach to message delivery. Rather than create a free-standing nutrition education program, NCP worked with the Ministry of Health (MOH) and private voluntary organizations (PVOs) to build a nutrition emphasis (and introduce new communication materials and counseling activities) into their related programs—such as different child survival components, safe motherhood, and so forth. NCP placed heavy emphasis upon institutionalizing communication capacities within these PVOs and a central government organization. The National Literacy Service of the Ministry of Education was also an active partner, working with NCP to improve the nutrition curriculum in primary schools and to incorporate nutrition messages into adult literacy materials.

The six-year project (1989-1995) was carried out in cooperation with the Ministry of Health. The Academy for Educational Development initially collaborated with the Nutrition Service of the MOH. In late 1990 the National Center for Health Information, Education, and Communication (CNIECS) was formed, and gradually took on responsibility for leading the project. USAID provided \$874,779 to fund the project and UNICEF contributed \$220,000.

The project benefitted from cross-fertilization with NCP programs in Niger and Burkina Faso. Prototype communication materials were shared among the projects and adapted to fit the needs of varying audiences and message emphases. Joint training and eventually sharing of professional expertise through consultancies also contributed to building of capacities in the region.

The project took place in three phases:

**Phase I: Program Development, 1989-1991.** Major activities included audience research, a baseline survey, and strategy development together with the Ministry of Health and three PVOs, which became known as the Nutrition Network. Initial emphasis was upon development of a village-based counseling approach and preparation of a first round of educational materials.

**Phase II: Expansion, 1991-1993.** The project trained an expanded number of PVO Child Survival Project teams to mount nutrition communication activities. Results of the baseline KAP survey

## Mali

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led to a refining of behavioral targets and development of additional communication materials. The Nutrition Network grew to include three government ministries, ten local and international PVOs, and several key donors including UNICEF.

**Phase III: Consolidation, 1993-1995.** Phase III focused on implementing the broadcast, primary school, and literacy strategies. During this period the Nutrition Network organized regular project planning meetings and responsibility for project implementation was gradually transferred to CНИЕCS. When NCP ended, UNICEF became the sole funding source of program activities, which continued under the new name, Communication Program for Family Well Being.

### Objectives and Target Area

The overall project objective of improving the nutritional status of women and young children in rural areas was divided into three specific goals:

- improve maternal nutrition during pregnancy and lactation;
- sensitize parents to the importance of nutrition and improve their ability to feed children appropriately (including those who have been sick);
- promote consumption of foods rich in micronutrients, particularly vitamin A, among pregnant and lactating women, and among children who are 6-36 months old.

NCP activities were initially carried out in the Ségou region of Mali, approximately 200 to 300 miles east of Bamako, where the original three PVOs (CARE, Africare, and World Vision) were active. As the number of PVOs involved in the program grew, the intervention area also expanded into the regions of Koulikoro, Kolondieba, and Sikasso. The program eventually reached a population of about 760,000.

### Audience Research

#### *Qualitative*

In December of 1989, NCP conducted ethnographic research in one PVO project site to examine the behavioral correlates of malnutrition and vitamin A deficiency in rural communities. In March of 1990, further qualitative studies included 16 focus groups and two market surveys. The research looked at family dietary practices and related decision making, identified common vitamin A-rich foods, and studied appropriate communication channels. Key findings were that:

## **Mali**

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- Mothers delayed feeding most solid foods until children were nearly a year old, and knew of few measures to help sick children regain their strength following bouts of diarrhea and illness;
- Neither men nor women were very aware of women's or children's dietary needs; however, the "right" to good food was thought to be the prerogative of adults who had earned it;
- In villages where a child survival project had been active, the villagers were more aware of the relationship between "good food and good health," and more inclined to believe in their own abilities to prevent illness. In villages that had never participated in a child survival project, the villagers generally felt they had almost no control over their own health;
- "Night blindness" (the first clinical sign of vitamin A deficiency) was a widely recognized condition thought to occur normally in pregnancy. Villagers knew of several traditional remedies (including use, though not necessarily consumption, of animal liver).

### ***Quantitative***

The baseline Knowledge, Attitudes, and Practices (KAP) survey was carried out in three PVO sites (47 villages) in December of 1990. The project interviewed 835 women and 524 men and collected anthropometric indicators of 657 children's nutritional status. The survey found that malnutrition was pervasive among children under three. Only one in three newborns received breastmilk as a first food, and on average, complementary feeding was delayed until nine to ten months of age. Few children were supervised by adults while they ate. Regarding communication channels, 80 percent of women said that health workers were their primary source of nutrition information; more than half the men said they received health information via radio.

### **Strategic Planning**

Strategic planning took place in two phases: after review of the qualitative research, and again after review of results from the KAP survey, when an original list of 14 behavioral objectives was refined to a smaller group of critical behavioral targets likely to show results within the time frame of the project. These were as follows:

- promoting "vitamin A-rich foods" as the prevention and cure for night blindness;
- emphasizing men's responsibilities for women's and children's nutrition;
- helping men and women make better food choices in the marketplace;
- promoting discrete child feeding behaviors (e.g., at least three supervised meals/day, use of a separate feeding bowl for children 12 - 36 months old, and recuperative feeding skills).

## Mali

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While exclusive breastfeeding through four months was viewed as critical, the PVO partners felt this behavior change was unlikely to be achieved in the project's initial time frame (Phase I). However, materials on exclusive breastfeeding were introduced when NCP was extended in 1992.

The NCP consortium also made five *tactical* decisions based on the research:

- Phase in nutrition communication following other health or social interventions such as immunization, oral rehydration therapy, or water and sanitation projects. Such improvements helped to establish motivation and self determination, two necessary elements for committing to nutrition behavior change, for which results were less readily apparent.
- Focus on increasing awareness of children's dietary *needs*, while leaving the more socially defined concept of children's *rights* alone.
- Use night blindness to help the target audience make the connection between *dietary intake* (eating enough red-orange or green leafy vegetables, etc.) and *good health* (the condition improves when the right foods are consumed).
- Direct some messages to intra-household resource allocation. Women in nearly every village had control over some resources, e.g., garden products, poultry, small commerce, milk sales, village technologies. In order to help women make independent dietary decisions, they must be made aware of their purchasing or bartering power. In the majority of cases, however, men controlled the resources. They needed to be encouraged to increase their financial contribution to maternal and child nutrition, or to purchase more nutritious foods themselves for their family.
- Use economic and social rationales for investing in women's and children's nutrition. Men could be persuaded to purchase nutritious low-cost foods for prevention, and more "socially-esteemed" and expensive foods, such as liver, for "cure."

## Communication Channels

### *Emphasis on Interpersonal Communication*

When the project began, NCP's child survival partners were already intensively involved in community mobilization activities. To build on this grassroots presence, NCP developed materials and provided training to strengthen the skills of field agents to identify community nutrition problems, choose appropriate kinds of communication, and use group activities to motivate and share information with communities.

## Mali

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Interpersonal and group counseling were the primary vehicles for reaching women; the project developed various supportive materials to help health agents bring messages to life. Men, on the other hand, were approached through village mobilization meetings, role plays, and radio. NCP designed and field-tested all media with participating PVOs before producing materials *en masse*.

The project began with a foundation of "village story books" presented in the form of flipcharts. NCP project teams in Burkina Faso and Mali collaborated on the development of an initial set of five flipcharts and a facilitator's guide. These used simple, cartoon-like illustrations which invited the audience to work through resistance points and then (indirectly) experience the benefits of new nutrition behaviors. A total of 650 sets of the flipcharts were produced, together with 125 copies of a facilitator's guide.

NCP developed counseling cards in 1993 at the request of PVO agents for materials suitable for pre-literate village volunteers. The consortium selected the ten most critical behaviors for emphasis. Colorful drawings based on photographs of Malians performing the promoted behavior were made into laminated counseling cards. Text on the back of the cards helped the PVO agent train the village volunteer—primarily through means of a short story related to the image. Village agents used both the flipcharts and the cards to animate discussions, develop role plays, and counsel mothers about children's diet. A total of 1,000 sets of the cards were produced.

Originally developed in Burkina Faso, a *carnet familial*, or variation on the health card, included priority NCP messages together with illustrated stickers. Field agents placed stickers on the messages during counseling sessions to emphasize points discussed. A total of 5,000 sets were produced.

A three-part manual entitled *Communautes en Bonne Sante* aimed to help field-level workers understand basic nutrition concepts and strengthen techniques for working with both parents and community organizations.

### *Mass Media for Men*

The key *mass* medium used by NCP was a dramatic radio series featuring a recalcitrant father who, with the advice of the community health agent and meddling of various village characters, manages to get and keep his family on the "Road to Health" through good nutrition. Ten episodes of *Saheli Sama*, the "Elephant of the Desert," were broadcast in July 1993. Prior to launching the drama, ten 30-second spots promoting priority behaviors were also developed. Following intensive consulting by rural radio experts, and creative re-vamping of the program by Malian playwrights, a revised broadcast was initiated in November 1994. The show proved to be so popular that the national radio station began broadcasting the series daily in February 1995.

## Mali

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### *Secondary Channels*

Secondary project channels included child-to-child activities and post-literacy program materials. In early 1992, NCP began efforts to strengthen nutrition education in primary schools and through non-formal educational programs. With UNICEF, the program created a Teachers' Activity Guide including classroom lessons and child-to-child activities. A set of three literacy booklets based upon nutrition themes was produced for new adult readers.

### **Training**

The project put heavy emphasis on training, both because of its goal of institutionalizing communication capacities in ongoing PVO Child Survival Projects, and because of its focus on counseling as a primary channel for communicating messages at the village level. Training therefore fell into two broad categories: national strategy, planning workshops, and lessons learned workshops; and regional skills-building workshops.

#### *National Strategy and Planning Workshops*

- *Strategy Formation Workshop* (for Nutrition Network partners, to discuss results of formative research and plan initial behavioral goals and activities); June 1990.
- *Dissemination of KAP Findings, Strategy Re-formulation* (for Nutrition Network partners, to refine behavioral objectives); September 1991.

#### *Regional Skills-building Workshops*

- *Series I: Launching the Community-Based Model* (with Helen Keller International, trained 28 MOH and PVO personnel; introduced the field guide for health agents and four draft flipcharts); December 1990.
- *Series II: Individual Counseling* (for 60 PVO and MHO staff, introducing the Five-Step Counseling Approach. NCP aimed to foster an environment in which community workers would encourage parents to put a new health action into practice by listening closely to a parent's concerns, using teaching aids that fostered participation, and providing regular follow up. To promote effective interpersonal communication, the program developed a five-step approach to nutrition-related assessment and counseling. See box.) May 1992.
- *Series III: Working Within the Community* (for PVOs on group communication techniques and incorporation of the flipcharts into ongoing monthly activity plans); November 1992.

## Mali

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- *Series IV: Effective Community Mobilization* (for PVO field staff, introducing the health worker's field manual and the *carnet familial*); November 1993.
- *Series V: Introduction of the Teacher's Activity Guides* (for nonformal education programs); April 1994.
- *Series VI: Community Theater* (introduction of use of traditional theater in communication programs, by a consultant from the NCP/Niger team); October 1994.

In the regional workshops, PVOs were encouraged to incorporate new NCP approaches and materials into their village-based programs following each training event. The training workshop always concluded with a discussion or proposed intervention calendars, and individual agents setting performance goals. Following each workshop series, the CНИЕCS team conducted field supervision visits to selected sites to monitor nutrition communication activities. Over the course of the project, each of the ten PVO project partners were visited at least once.

## Evaluation

At the time of the baseline survey in 1990, each of the three participating PVOs randomly selected eight villages from its active Child Survival Project to participate intensively in NCP, and eight villages (matched for socioeconomic and other factors) to act as "comparisons." In the comparison villages, all other child survival activities of the respective PVO took place (e.g., immunizations, oral rehydration therapy, safe motherhood, family planning, water hygiene) but NCP approaches and materials were not included.

After one year of intensive promotion, the project conducted a rapid assessment in one PVO site that needed to withdraw from the program for administrative reasons. The mid-term survey used the same protocol as the 1990 baseline survey but covered only eight of the original 16 villages sampled, or four NCP trial villages and four comparisons. The mid-term survey found that nutritional status among children ages 6-36 months was better in the four trial villages than the comparison villages, and it was also better than the villages' baseline measurements. This encouraged NCP to maintain its strategy.

Data to support an impact evaluation of NCP in Mali were collected between December 15, 1994, and January 15, 1995. The two remaining project sites from the baseline (in Ségou and Koutiala) and one additional PVO (in Kolondieba) participated in the survey. Approximately 450,000 people were involved in the NCP intervention in these areas. The survey included 702 women and 354 men (who responded to a series of questions including a 24-hour dietary recall) and 845 children three years of age and younger (who were measured).

## Results

The survey results indicate that **NCP improved maternal diet, child feeding behavior and children's growth**. This is true whether the project's impact is examined over time (i.e., before/1990 and after/1994-95), or in relationship to the strength of a village or an individual's exposure to NCP media. All findings reported below are significant.

### *Impact Pre- and Post-NCP*

- The prevalence of malnutrition (weight for age), was reduced from 38% to 28% (a 26% reduction) in trial villages, while it remained virtually unchanged (1% point increase) in comparison villages.
- Chronic malnutrition, or stunting, was reduced from 46% to 31% (a 33% reduction) in the trial villages, while there was no significant change in comparison villages.
- Giving children colostrum (first breastmilk) more than doubled in trial villages (from 25% to 58%) compared to a 12 point change (30% to 42%) in comparison villages.
- The number of mothers in trial villages not giving infants water until after four months doubled over the baseline level (from 10% to 21%) compared to a 6 point change (11% to 17%) in comparison villages.
- Mothers in trial villages were far more likely to introduce porridge, fruit, green leafy vegetables, cow's milk, and meat or liver into a child's diets—and in a timely fashion—than mothers in comparison villages.

### *Impact in Relationship to NCP Exposure*

There was a positive relationship between length of time a village participated in NCP and improvements in children's measurements. When multi-variate statistical techniques were used to examine these relationships, it appeared that:

- Children over six months of age were **twice** as likely to have a satisfactory general nutritional status (weight/age) if the child's mother *remembered two or more NCP counseling contacts or materials* ( $p=.008$ ). Recalling NCP media was the only significant factor in an analysis that also included having been vaccinated, filtering water, and having a positive wealth measure.
- Using a similar analysis as above, children over six months of age were **3.4 less likely** to be

## Mali

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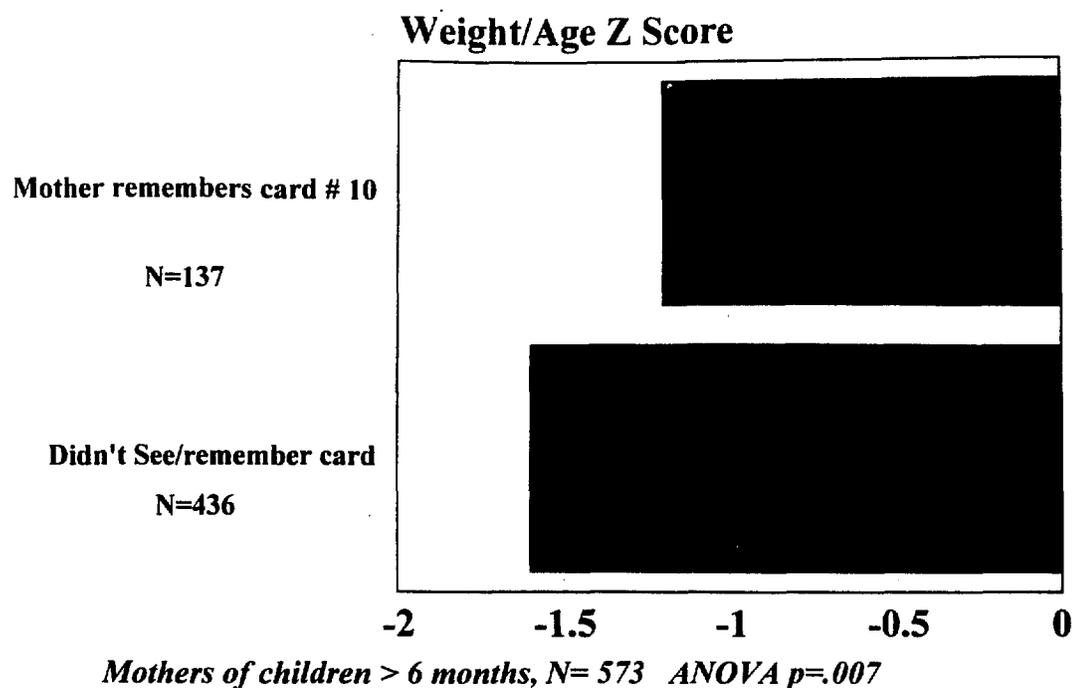
stunted (unsatisfactory height/age) if the child's mother *remembered two or more NCP counseling contacts or materials*.

- Neither the presence of child survival activities alone, nor socioeconomic factors alone (particularly wealth indices), or a combination of these factors without NCP, were associated with improved nutritional status. This was tested in a multitude of ways. Sickness two weeks prior to/during the survey was the only variable associated with wasting.

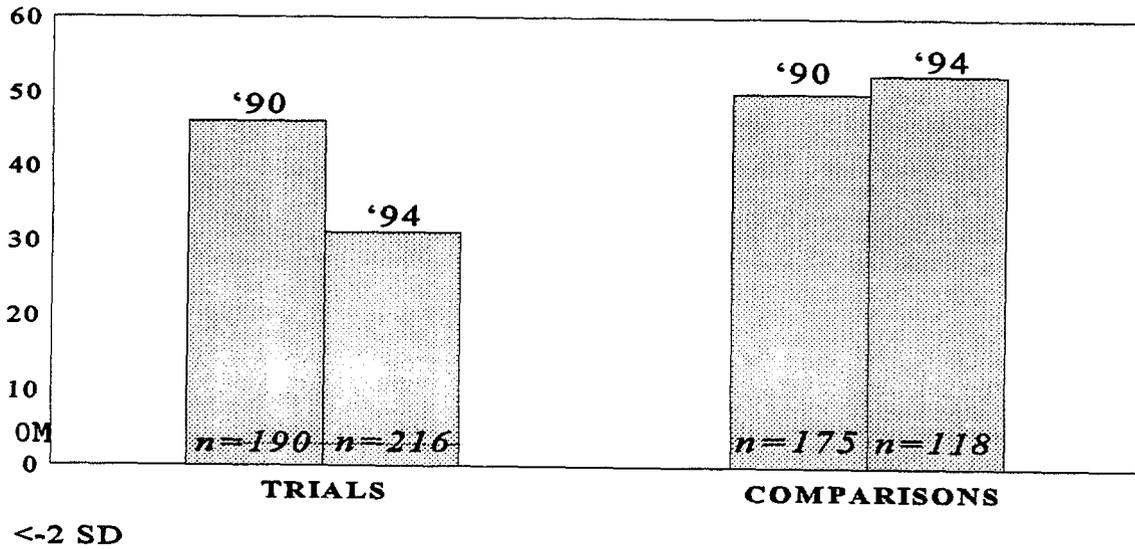
NCP exposure was also highly correlated with increases in several promoted behaviors.

- Men purchased more healthy foods for women and children.
- Women and children consumed greater amounts of healthy foods.
- Caretakers reported better child feeding practices.

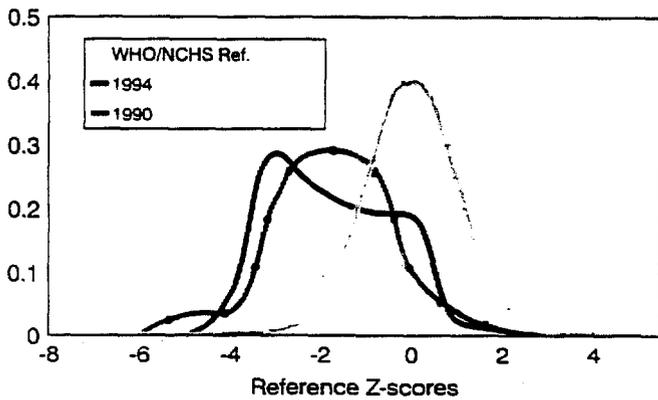
## Weight for Age and NCP Counseling Cards



## Percent of Stunted Children

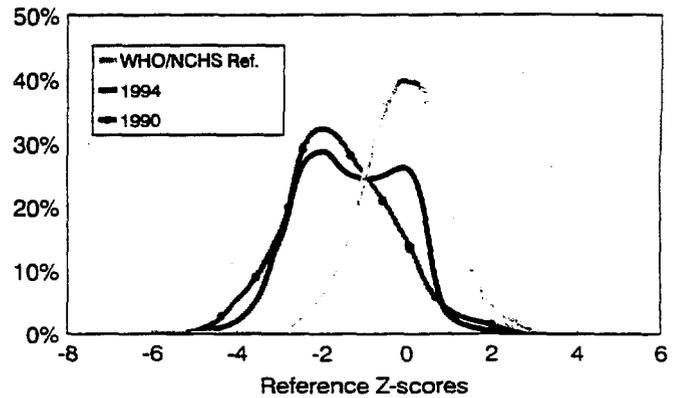


Pre-Post Weight/Age Distribution  
Comparison Villages 1990-1994



1990 N=182, Mean WAZ=-1.8, SD=1.3  
1994 N=122, Mean WAZ=-1.8, SD=1.3

Pre-Post Weight/Age Distribution  
Trial Villages 1990 - 1994



1990 N= 201, Mean WAZ=-1.6, SD=1.3  
1994 N= 233, Mean WAZ=-1.3, SD=1.2

## Lessons Learned

NCP's evaluation provides evidence that within rural, Malian communities, improvements in nutritional status do not require increases in household income and can be obtained with *low-cost* communications added to child survival programs. NCP improved the chances for approximately 750,000 people taking part in the community-based component of the program in Mali, while the radio broadcasts had the potential of reaching any Bambara speaker in the country (of 9 million people). The reduction in child malnutrition alone achieved through NCP activities is estimated to have prevented the deaths of approximately 850 children per year by the end of the project.

By linking up with ongoing programs, NCP was able to tap into existing momentum, reduce start-up time, and benefit from the foundation of trust and an environment favorable to change established by locally-active PVOs.

Successive series of skills-building workshops and a wide variety of educational materials enabled and encouraged community health agents to expand the scope of their community work to include nutrition. Counseling cards which complemented the flipcharts were used without difficulty by both literate and non-literate village volunteers. Volunteers reported that using the cards increased their credibility and prestige in the village.

NCP's project design, in which interventions were implemented by well-established international PVOs and then expanded to the MOH and other PVOs, facilitated the progressive transfer of responsibility for activities to national team members working within CНИЕCS. Following four years of collaboration, the technical capacity and the reputation of the CНИЕCS grew impressively. Since 1993, PVO health projects have increasingly turned to the CНИЕCS for assistance with materials development, radio production, and training.

While funding for USAID's project in Mali ended in March, 1995, NCP activities continue under the direction of the National Center for Health Information, Education, and Communication (CНИЕCS), the Group Pivot for Child Survival (an NGO coordinating group, partially supported by USAID), and the network of PVOs, with additional support from UNICEF. Expansion of NCP activities with UNICEF funding has been a source of great encouragement to all members of the PVO/NGO Nutrition Network. With UNICEF support, the NCP strategy has been expanded to new regions of the country. New episodes have been added to the radio drama; print and training materials have been translated into new languages; and new initiatives have been built into the in-school activities launched by NCP.

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# NIGER<sup>4</sup>

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## Vitamin A Promotion Project

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Peter Gottert  
Margaret Parlato  
Aissata Mamadoultai bou  
Brah Ferdows

### Background

The 1991-94 Vitamin A Promotion Project was designed to increase consumption of Vitamin A-rich foods by promoting seasonally available local products. Vitamin A deficiency is common, even though foods rich in Vitamin A are generally available or affordable for most families.

A 1984 survey in the Tahoua region estimated that 3.9% of children suffered clinical Vitamin A deficiency. This is four times the level at which Vitamin A deficiency is considered a public health problem.

The Ministry of Public Health (MOH) implemented the project with technical assistance from the USAID-funded Nutrition Communication Project (NCP) of the Academy for Educational

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<sup>4</sup>Academy for Educational Development. Final Report: Niger Vitamin A Promotion Project, Washington, D.C.: AED, April 1995.

Baker, S.. Enquête de Base sur les Connaissances, les Attitudes et les Pratiques en Matière de Vitamine A, Arrondissements de Birni N'Konni et Illela. Washington, DC: AED, January 1994.

Helen Keller International. Using the HKI Food Frequency Method to Evaluate Food Promotion Intervention: Case Study from Niger Nutrition NewsNotes, Spring/Winter 1996, Issue No. 1.

Yoder, P. S., Z. Mohammed, O. Abdou, and A. Abou. Final Evaluation Report, Vitamin A Promotion Project: Survey of Knowledge, Attitudes and Reported Practices in Illela and Birni N'Konni Districts. Washington, D.C.: AED, August 1995.

## Niger

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Development. Helen Keller International (HKI) provided operational and financial management. USAID funded the three and a half year project, which had a total budget of US\$626,000 including \$57,000 for summative evaluation.

The project had two major components:

1. **Phase I: Pilot study.** During 1991-92, the project operated in 16 villages in one district of Tahoua, covering about 26,000 people. The pilot study was used to identify year-round Vitamin A-rich food sources and test village drama as an approach for reaching the target audiences. These activities cost \$276,000.
2. **Phase II: Multimedia campaign.** During 1993-95, the project expanded to 80 villages in 4 districts of Tahoua Department, reaching some 250,000 people. A ten-month campaign promoted four Vitamin A-rich foods (liver, dark greens leafy vegetables, squash, and mangoes), depending upon the season, through radio dramas and spots, drama performances, and group discussions using counseling cards. This component cost \$350,000.

The project was designed in two phases because of uncertainty regarding the amount of funding available. Tahoua, one of Niger's six regions, was selected as the project site because it has sufficient water to support vegetable production in the dry-season.

Overall, the project demonstrated that promoting locally available and affordable foods can improve the Vitamin A status of rural women and children. Multiple approaches are needed to reach rural audiences because of their limited access to information.

## Objectives

The project's goal was to improve the nutritional status of vulnerable groups by promoting the consumption of local foods rich in Vitamin A. Vulnerable groups were identified as children between the ages of six months and six years, pregnant women, and nursing mothers.

## Research and Formulation of Communication Strategies

Formative research during the first four months of the project established that it was possible to meet Vitamin A needs throughout the year from foods already available in this arid region and that all these sources were culturally acceptable and within the economic means of rural households. Three studies conducted by the project team each contributed important information. A Knowledge Attitudes

## **Niger**

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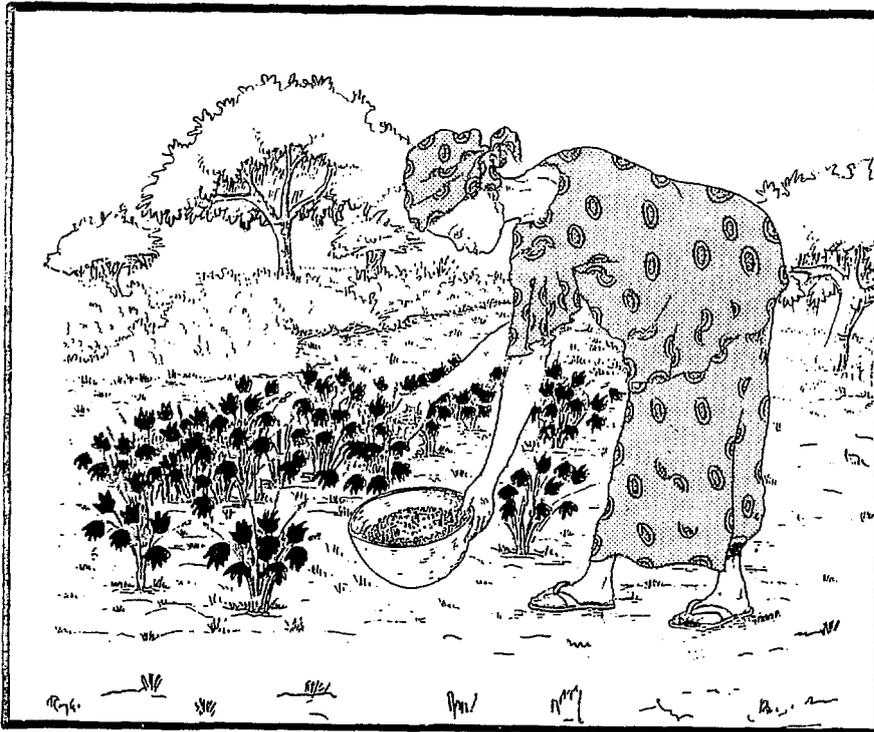
Practice and Dietary Recall Survey helped understand dietary practices and constraints. A Farmers study explored ways to include Vitamin A rich foods in commercial gardens. A series of market studies identified locally-available Vitamin A food sources, established a calendar of seasonal "best bet" sources of the nutrient, along with recommended portion sizes for different target beneficiaries. The market studies also served to gage the supply and cost of foods as well as seasonal trends in household cash availability. Throughout, a particular effort was made to understand the economic, market and ecological constraints to Vitamin A food supply as well as the knowledge, attitudes, practices and preferences of the population. Evaluation results from Phase I showed that this approach worked well although the special feeding requirements for children needed more emphasis.

Project planners identified four target audiences: (1) men, who purchase most of their family's food; (2) women, who prepare and serve food; (3) commercial gardeners, who produce Vitamin A-rich

foods for sale and home consumption; and (4) health and extension agents, who often introduce new ideas. The project attempted to shift cultural norms about men's role. Men are traditionally seen as providers of millet, the staple food. Project messages enlarged this role to depict men as providing their family with a variety of nutritious foods. Similarly, liver was promoted as a nutritious snack food for women and children, not just for men.

### **Target Behaviors and Messages**

Project planners decided that the communication program would emphasize four key behaviors: (1) increase the frequency with which fathers buy liver as a snack for their children and wives; (2) encourage mothers to buy and share 50 grams of liver with their children weekly; (3) increase the frequency of children's consumption of greens; and (4) increase the production of traditional greens in dry-season commercial gardens.



Taking into account seasonal availability, household cash flow and consumer preferences, project planners identified several foods to promote at different times of the year: dark leafy greens, liver, mangoes, and squash. These foods are all commonly eaten. During the dry, cool season, cultivation of dark leafy greens in commercial gardens was promoted. Messages encouraged women and children to eat Vitamin A-rich snacks so that greater frequency of eating would lead to increased overall consumption of target foods.

## Media Strategy

An analysis of villagers' information sources, contact with health providers, and mass media use concluded that conventional information channels have limited reach. Accordingly, project planners developed the idea of village drama -- the use of amateur actors to perform dramatic and comedy skits in their own villages. This format had several advantages: it tapped the tradition of storytelling, could reach remote rural areas, and provide a means to engage local communities in developing their own health education programs. Project staff trained village volunteers to convey information about Vitamin A-rich foods and provided supervision and technical support. The village dramas provided an interactive vehicle for providing information and encouragement to adopt new practices.

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In the project's second phase, the media mix was expanded to include radio broadcasts and interpersonal education by trained volunteers. Half the villages had village drama teams; all the villages were exposed to the radio and the educators. This design was to permit assessment of the cost-effectiveness of drama with its high demands for training and supervision.

A newly-opened regional radio station agreed to produce radio materials at low cost. It made live recordings of 42 village drama performances and broadcast them weekly over a 10 month period. It also created a series of radio spots on Vitamin A, which were aired twice daily for three months.



In each village, government health workers, teachers, and agricultural extension agents were trained to work with the drama groups and serve as volunteer educators. Following training in counseling and leading group discussions, they were asked to conduct at least one community group discussion per week as well as individual counseling.

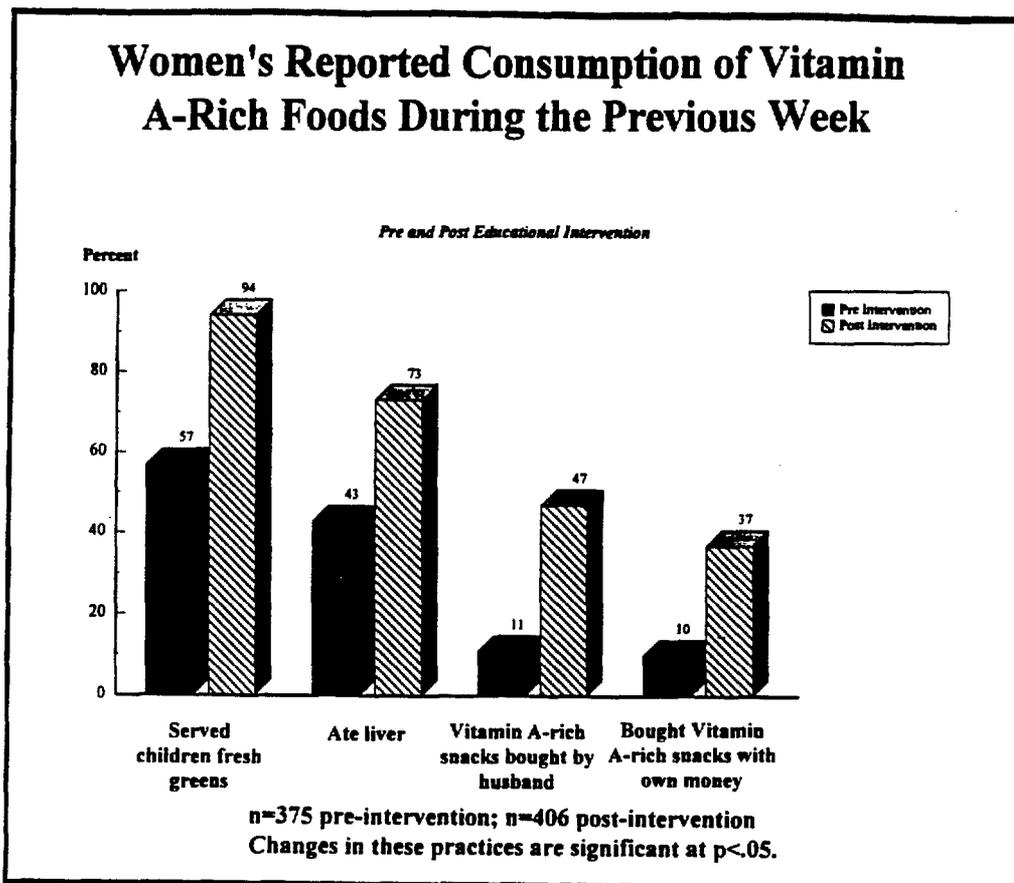
In order to support the counseling and extend the messages to a wider audience, the project team developed counseling cards in two sizes -- a large size for use in face-to-face counseling, and a smaller, postcard size to aid village drama teams. Both cards contained the same messages and images. The project distributed 80,000 of the postcard-size cards to villagers to encourage them to spread the messages further.

## Evaluation Findings

An assessment of Phase I found that village drama was highly successful in reaching rural audiences, with 61 percent of men and 34 percent of women having seen at least one performance. Consumption of liver and greens rose among women but only modestly among children, indicating the need to design special strategies for this group.

For Phase II, a comparison of data from the January 1994 baseline and the November/December 1994 follow-up surveys indicates that the campaign reached its intended audiences and that Phase II influenced purchasing and consumption behavior. Key findings are:

- Exposure to media.** The media mix was effective in reaching rural villagers. Researchers found that 60 percent of men and 40 percent of women heard or saw some element of the educational program. At least one in four women attended a drama team performance and saw the counseling cards. One in five women heard the radio skits and spots.



- Knowledge.** The proportion of women who cited Vitamin A-rich foods as important for the health of children aged 1-2 years increased from 32 percent to 57 percent.
- Consumption of liver.** Liver consumption rose dramatically. The proportion of women reporting that they had eaten liver in the week prior to the survey increased from 43 percent to 73 percent. Nearly half (49%) of the mothers reported that their children had eaten liver in the previous week, compared with 37 percent prior to the campaign. Liver consumption increased among children in all age groups.

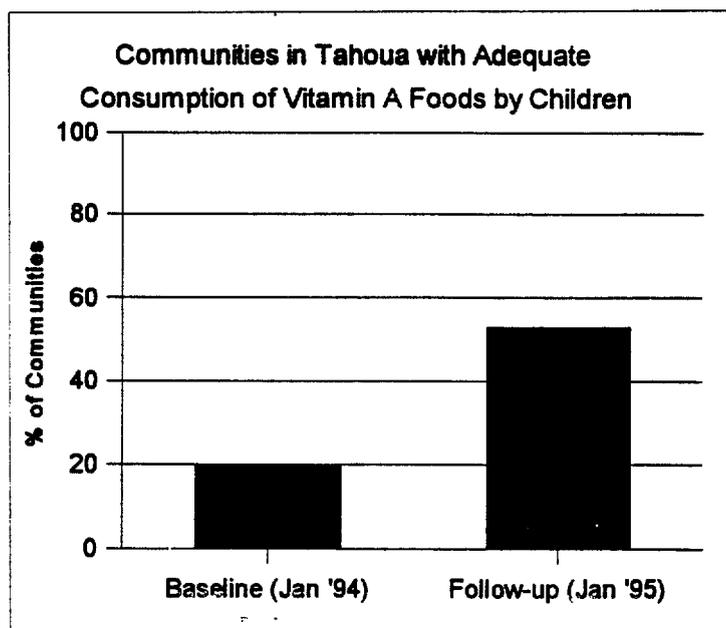
## Niger

- **Consumption of leafy greens.** Consumption of dark leafy greens showed major improvement. The proportion of children who had eaten greens in the week prior to the survey increased from 57 percent to 94 percent.
- **Food purchases.** The proportion of men who purchased liver for their family in the previous week more than doubled, from 6 percent to 15 percent. Similarly, 12 percent of the men brought home a prepared cooked salad from leafy greens (*yamoutse*); before the campaign this was a rare event. Overall purchase of Vitamin A-rich foods increased from 11% to 47%. Women also purchased the recommended foods with their own money. One in five women bought the prepared salad. The proportion of women who purchased leafy greens and liver grew from negligible levels to 9 percent and 12 percent, respectively.

The percent of women reporting that their husband brought home snacks rich in Vitamin A (all sources) increased from 11% TO 47%; the percent of women who bought such foods with their own money increased from 10% to 37%.

HKI independently conducted food frequency surveys at the baseline in January 1994 and again in January 1995. Of the 15 communities surveyed in Tahoua at the baseline, only 3 had adequate consumption of foods rich in Vitamin A by children under five years. After the NCP had been in operation for 10 months the same survey methodology used in the same communities found that 5 more villages, a third of the total, had moved

from the deficient into the adequate category. The HKI survey also revealed that liver, which had been heavily promoted, was among the foods that contributed most to the success in Tahoua. In the adjacent region of Maradi, where health service providers were also trained to promote the consumption of Vitamin A foods, but without NCP support and without the radio campaign, community education or village theater, the HKI food frequency survey indicated no increase in the frequency of consumption of such foods.



## **Niger**

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Some aspects of the campaign appeared to have limited impact:

- Although the campaign encouraged mothers to begin feeding a sauce with leafy greens to infants at six months of age, the proportion of mothers who did so increased only slightly, from 52 percent to 59 percent. This finding suggests that communication efforts need to be intensified to counter mothers' belief that greens cause indigestion.
- Little change in consumption of squash was observed. Possible explanations for this finding are that some villages do not grow squash and therefore the food may be even less easily available than the formative research suggested.
- Dry-season cultivation of greens by commercial gardeners--a secondary message--remained at a low level. Making this change required gardeners to lose income from cash crops and to purchase seeds. They were evidently not persuaded that the benefits outweighed the costs.

As expected, villages that had participated in both the pilot project and the phase II multimedia campaign showed significantly higher levels of knowledge and behavior change based on composite scores. Unexpectedly, however, the villages that received radio and group discussions showed greater overall change in knowledge and behavior than the villages with these media plus drama teams, even though drama performances were effective in the first phase. The non-drama villages were smaller in size and project staff speculate that this facilitated the discussion and sharing of ideas. Also, people in larger villages may have had less exposure to the drama performances due to distances and the tendency of the drama troupes to perform only in their own immediate neighborhood.

## **Institutional Development**

The pilot project provided on-the-job training for MOH staff, who had little previous experience in communication programs. By working through the program planning and implementation process at an accelerated pace, staff gained confidence as well experience. The pilot project also provided rapid feedback on effective (and ineffective) approaches. The second phase further reinforced staff skills.

As an indication of the project team's newly acquired expertise, the UN Food and Agriculture Organization asked them to provide technical assistance to its project in Niger, and NCP sent them to Mali to train project staff in community drama techniques.

## **Lessons Learned**

The Niger Vitamin A Promotion Project demonstrated that effective strategies can be designed to

## Niger

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overcome adverse conditions such as limited sources of Vitamin A-rich foods, geographic isolation, illiteracy, and poor access to information sources. In such a setting, communication programs must adhere to basic principles: research must be carefully targeted; programs must be community-owned; costs must be sustainable; and local professionals must acquire the necessary skills to replicate the process.

Key lessons that emerged from the project are:

1. Obtaining the right kind of information on which to base a communication strategy does not have to be a time consuming, costly, and complicated undertaking. Use of a short list of highly specific questions to guide formative research can keep researchers focused on essential issues - that is, only those required to identify realistic and concrete behavioral targets, the right target groups, and ways of reaching them. The project found surprisingly little "wastage" in its research efforts. Most of the information collected fed directly into crucial decision making.
2. Village drama can be an energizing force for community involvement and a powerful way to build interest in a nutrition issue. Adequate supervision - probably on a monthly basis - is required to keep up motivation of volunteer actors and assure that the content of performances is on track. Program managers must devote funding and personnel for this critical function and must also monitor implementation closely.
3. Mass media can provide important motivational support to community-level activities and also extend the number of people reached by village level events. When a radio announcer introduces a drama performance in a remote village, for example, credibility of the event increases enormously, as does enthusiasm among those who contribute to the field activities.
4. A pilot project that is limited in scope and carried out over a short period can be a powerful on-the-job training arena for agencies and individuals having little previous experience designing communication programs. A pilot project allows staff to go through all essential steps - from planning to evaluation - in rapid succession. The format provides unusually rapid feedback on what works and doesn't work. Unseasoned staff can gain confidence and experience.

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# PERU<sup>5</sup>

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## IEC Component of the Peru Breastfeeding Project

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Peggy Koniz-Booher  
Margaret Parlato

### Background:

The Peru Breastfeeding Project was a two-year quasi-experimental study to develop and evaluate the effectiveness of a hospital-based intervention in increasing the proportion of mothers who exclusively breastfed their infants up to six months of age. The breastfeeding promotion intervention was carried out between 1988 and 1990 in two large hospitals serving low-income groups in Lima, using a third public hospital as a control. The project was carried out by Johns Hopkins University and the Universidad Peruana Cayetano Heredia with funding from the Population Council and USAID. The Nutrition Communication Project (NCP) provided technical assistance for the design and evaluation of the project's information, education and communication (IEC) component. The experience from this early



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<sup>5</sup>Academy for Educational Development. Final Report: IEC Component of the Peru Breastfeeding Project, Washington, D.C.: AED, June 1995.

Altobelli, Laura C. Peru Breastfeeding Project: A Controlled Trial to Extend the Duration of Exclusive Breastfeeding Among low Income Mothers in Lima, Peru, Final Report. New York: Population Council International Programs, November 1991.

## Peru

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effort to promote exclusive breastfeeding, provided important lessons for subsequent NCP breastfeeding activities in the region.

The project had four stages. The first sought to identify the behavioral and institutional constraints to exclusive breastfeeding through interviews with mothers in four districts of Lima and hospital interviews with postpartum women in the study hospitals, a survey of knowledge, attitudes and practices (KAP) of hospital personnel, and a review of hospital procedures in the three sites. The second stage applied the findings of the first stage to the training of hospital personnel and the development of educational materials. In stage three, mothers in the intervention hospitals were then exposed to breastfeeding promotion messages through interpersonal communication with health personnel and the educational materials developed by the project. In the fourth and final stage, the effects of the intervention were evaluated through a repeat KAP survey of hospital personnel and a prospective follow-up of 360 mother-infant pairs who had delivered at the three hospitals.

### **Research and Formulation of Communication Strategies:**

NCP's role in the project was concentrated in the second stage, using the findings from the ethnographic and baseline research, complemented by focus group discussions, to understand hospital personnel's and mothers' existing knowledge, attitudes, practices and perceived constraints to exclusive breastfeeding. NCP then worked with a local Peruvian production group (Asociación Perú-Mujer) to develop specific communication messages and educational materials aimed at mothers and health workers, focusing on the early introduction of water and traditional teas — practices identified as the biggest barriers to exclusive breastfeeding in the urban population.

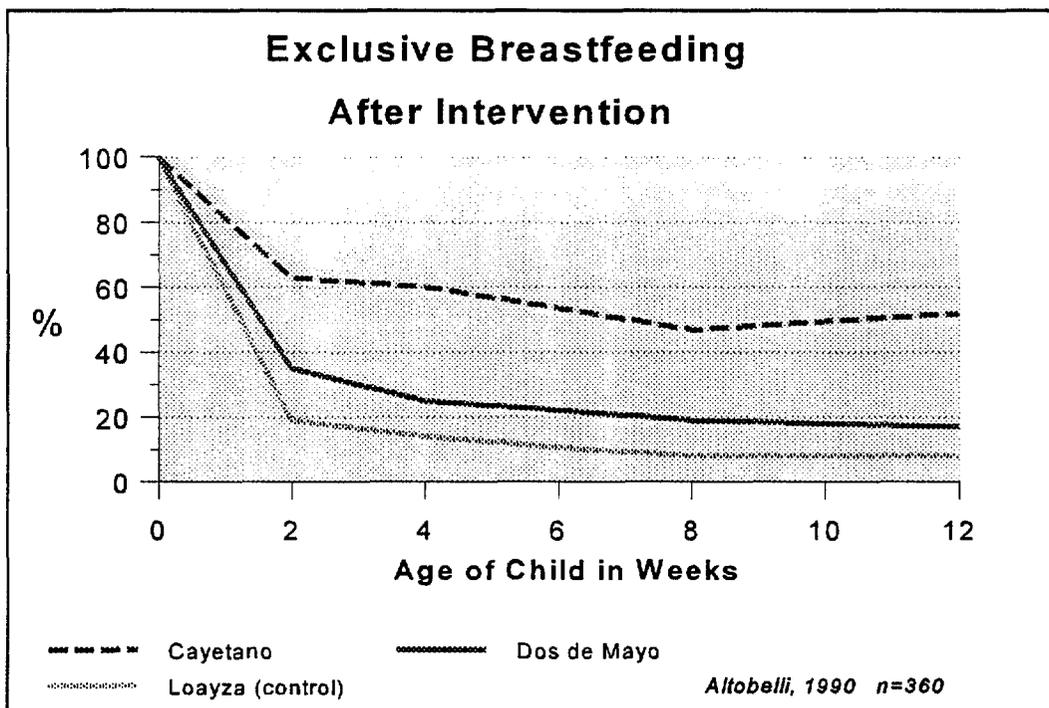
The educational materials consisted of: 1) a pocket reference guide entitled, "Breastfeeding: A Guide for Health Personnel," that was distributed to all health workers during their training; 2) a 10-card flip chart, of which a half-dozen copies were placed in each intervention hospital; and 3) a poster-style calendar that was given to all mothers delivering at the two intervention hospitals (Cayetano Heredia and Dos de Mayo) during the study period. The print materials were intended to support health personnel in effectively counseling mothers and promoting exclusive breastfeeding. The take-home poster/calendar, which had a blank line on which the health worker was to mark the month in which to initiate complementary feeding (signaling the end of the 6 month exclusive breastfeeding period), was designed to encourage dialogue and reinforce other key messages for mothers after they had left the hospital.

Because of regional interest in the breastfeeding reference guide for health personnel, NCP supported the distribution of copies for use in Bolivia, Ecuador and Colombia, as well as to other agencies working in breastfeeding promotion in Latin America. The guide served as prototype for the one developed for the Honduras national breastfeeding promotion campaign. Some 10,000 copies of the guide as well as copies of the flipchart were also reproduced by UNICEF for use throughout Peru.

## Results:

The project's evaluation showed that the intervention was successful in achieving marked improvements in health provider knowledge of appropriate infant feeding practices, particularly regarding the inappropriateness of giving water, other liquids or bottles to young infants and the importance of encouraging exclusive breastfeeding through six months of age. However, this improved knowledge did not always translate into effective counseling of mothers, as illustrated by the lower levels of exposure to the educational intervention among mothers at one of the intervention hospitals (Dos de Mayo).

The project's most significant accomplishment was the relatively high prevalence of exclusive breastfeeding attained among mothers who delivered at Cayetano Heredia, the intervention hospital with the most complete and intensive intervention among both health providers and mothers. Postpartum follow-up of mothers in the three hospitals showed dramatic improvements in the prevalence of exclusive breastfeeding among mothers exposed to the educational materials, with 52 percent of mothers who had delivered at Cayetano Heredia hospital continuing to exclusively breastfeed at 12 weeks, as compared with 17 percent at Dos de Mayo hospital and only 8 percent of mothers from the control hospital (Loayza). The Population Council's Evaluation concluded that there was a strong association between a mother's exclusive breastfeeding and her having heard a talk with a flip chart and having received a copy of the poster calendar while in the hospital. The evaluation



<b>Number of Mothers Exposed to the Intervention</b> <i>as reported at two weeks postpartum</i>			
	<i>Hospital:</i>		
	<i>Cayetano</i>	<i>Dos de Mayo</i>	<i>Loayza (control)</i>
Received any explanation about breastfeeding	90	75	40
Received a talk with the flip chart	86	61	8
Received the poster/calendar	95	46	0
N=	115	99	107

further notes that the support materials played an important role in improving the quality, accuracy and consistency of information presented to mothers.

Two years after completion of the project, NCP conducted a follow-up evaluation of the hospital-based intervention. This evaluation carried out in Cayetano Heredia and Dos de Mayo hospitals in early 1992 (some 32 months after hospital workers received training and materials) demonstrated that while important changes had occurred in the two hospitals as a result of the intervention, both facilities continued to experience problems with inadequate knowledge of lactation management among health personnel and limitations on breastfeeding counseling of mothers. Personnel experienced difficulties with the use of the flip chart (particularly those not trained as part of the intervention), and copies of the breastfeeding guide for health personnel developed by the project were no longer available for easy reference by new personnel. No take-home print materials with breastfeeding information were available for mothers. The follow-up evaluation concluded that while the project demonstrated impressive gains during the intervention period, conditions no longer existed in the two hospitals to facilitate consistent breastfeeding counseling of mothers.

### **Lessons Learned:**

The project demonstrated the usefulness of the social marketing approach for identifying specific breastfeeding-related behaviors that are amenable to change. Focusing on a few, well-researched messages for mothers proved critical as did the emphasis on dealing with specific constraints to proper breastfeeding identified during the research phase.

## Peru

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The 20-hour training course, supported by a thorough reference guide designed for hospital personnel, resulted in sharp improvements in health worker knowledge and attitudes that persisted long after the training activity itself. The overall effects of a one-time training activity in a facility, however, proved limited due to staff turnover. In order to ensure that training interventions fully achieve their objectives, hospitals need to develop strategies for ongoing training of new personnel, as well as for refresher training and re-supply of IEC support materials.

More importantly, the study showed that increasing health workers' knowledge does not automatically translate into more effective application of that knowledge in the process of educating and counseling mothers during the delivery of health services. While the study focused on changing health workers' knowledge and attitudes and sought to facilitate communication with mothers by providing specific tools (such as the flip chart and poster), in practice, improving the quality of education and counseling requires placing greater emphasis on improving health workers' counseling skills. Training must then be complemented by ongoing monitoring and supervision of how health personnel are actually applying their knowledge during routine service delivery activities. All hospital personnel with a role in instructing mothers need training in how to effectively use educational materials to counsel as well as how to take greater advantage of the different opportunities for counseling women during their hospital stay.

The study also demonstrated the need for future hospital training-education efforts to include a mass-media component. This should aim to begin altering public opinion about deeply rooted breastfeeding practices that are harmful to the child and reinforce the behaviors mothers learned during their hospital stay.

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# SUDAN<sup>6</sup>

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## Infant Feeding Project

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Deborah Helitzer-Allen  
Gail Harrison  
Don Levy

The Sudan Infant Feeding Project was undertaken by the Nutrition Communication Project (NCP) during the period between October 1988 and December 1989 with funding from USAID. The project was initiated to study and make recommendations about (1) the potential for marketing of a commercial weaning food; and (2) improvement of feeding practices for infants and young children through the development of a nutrition education/communication strategy for the Nutrition Division of the Ministry of Health (MOH) in three regions of the country (Khartoum, Gezira and Kordofan). The former component of the project was dropped during the early phases of technical assistance, due to the determination that the marketing of a commercial weaning food was not financially feasible under the economic climate existing at the time in Sudan.

The project was prematurely curtailed due to political problems in the Sudan before the project objectives could be completely realized. Nevertheless, several important research activities were undertaken and completed, including analysis and summarization of data previously collected under the auspices of other USAID assistance in the country, and an ethnographic study in the three regions. The resulting analyses showed that severe regional differences exist in food availability, cultural practices, lifestyle patterns, and access to and listening habits regarding

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Harrison, Gail G. *Nutrition and Child Feeding Patterns in the Sudan: October, 1989*. Washington, DC: Academy for Educational Development, 1989.

Helitzer-Allen, Deborah. *Final Report - Sudan Infant Feeding Project: October, 1988 - December, 1989*. Washington, DC: Academy for Educational Development, 1989.

Zaghloul, Sahar. *Rapid Ethnographic Assessment of Infant Feeding Practices: July 18 - August 28, 1989*. Washington, DC: Academy for Educational Development, 1989.

## **Sudan**

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communication channels. These differences constrain national efforts to develop nutrition communication programs. However, there are several topics on which messages could be developed which would benefit the entire population. They include: maintenance and support of traditional breastfeeding practices; frequency of feeding, both at the breast and during the weaning period; feeding of solid foods during illness, especially during diarrhea and measles; and consumption of calories and high protein foods during pregnancy. If funding exists, further household-based research should focus on breastfeeding patterns and on identifying foods which are acceptable during illness.

Despite the early conclusion of the project, several other important outcomes were attained. They include: the training of twenty staff from the Ministry of Education's School Gardening and Nutrition Department (SGNED) in ethnographic research skills; the initial activities have prompted further interest in collaboration between MOH and SGNED in the use of data to develop messages for improved nutrition education programs. The NCP communications methodology was introduced and apparently made an impact on the approach to health education in Sudan; and finally, the enormous synthesis of existing and new data enabled nutrition educators to focus on the problem as it exists in Sudan, rather than on their own perceptions and guesses.

## CHAPTER 3

### BUILDING SKILLS AND TRAINING CAPACITY

Valerie Uccellani

Clara Olaya

Peter Gottert

Claudia Fishman

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Building skills and developing local and regional training capacity in social marketing was a focal area of the Nutrition Communication Project. In response to the overwhelming need for training and the modest project resources available, NCP decided early on in the project to concentrate on four main objectives:

- **Train national teams** to manage social marketing efforts and strengthen communication skills of staff at various levels;
- **Develop training capacity at regional centers;**
- **Strengthen the capabilities of private voluntary organizations (PVOs)** in social marketing; and
- **Test new approaches to interpersonal communication.**

During the course of the project, NCP conducted more than 200 training events and developed a wide range of modules and materials for different categories of personnel. More than 4,700 people were trained directly. These included front-line health workers, radio producers, teachers, agricultural extension agents, researchers, and IEC managers. The figures below provide an overview of training participants and topics.

Some of the topics covered by the training included:

- Management of social marketing programs
- Interpersonal communication
- Qualitative research methods
- Production of radio dramas
- Pretesting of print materials
- Community outreach techniques
- Training and supervisory skills

### Training National Teams

In the six countries where NCP supported long-term interventions<sup>1</sup>, NCP provided intensive training in order to strengthen the ability of health and education managers to plan, execute and evaluate nutrition communication programs. Training activities in the six NCP project countries covered both administrative and implementation staff, ranging from managers to front-line workers. This work is described in more detail in Chapter 2, *Country Projects*.

- **Peru** Trained local NGO, Peru-Mujer in focus group discussions and pretest techniques
- **Honduras** 58 training events. 1200 health workers trained
- **Mali** 6 Skills Building Workshops, 1 Strategy Development Workshop, 3 Planning Workshops, 1 Lessons Learned Workshop, Trained 360 NGO and Field Staff
- **Niger** Trained 127 community agents in village theater for nutrition
- **Burkina Faso** 51 training events with 3 cycles of workshops. Trained a total of 500 health workers, 60 trainers, 65 teachers, 40 agricultural agents
- **Sudan** Trained 20 Ministry of Health, Education, and PVO personnel in ethnographic research skills.

• **Swaziland.** NCP also provided intensive training in Swaziland. As part of its technical assistance to the Swaziland Weaning Project, NCP helped to organize and lead a two-part workshop to develop a communication strategy and train home economics extension officers in simple radio production techniques. The 1992 workshop provided training for 12 regional extension officers employed by the Home Economics Section of the Ministry of Agriculture and Cooperatives (MOAC). During the workshop the extension officers drafted an integrated communication strategy and prepared a creative brief. They were also trained in radio production, which will enable them to send in recordings for the project's magazine-format radio program. Use of these materials not only saves travel time and expense but also imparts more of a regional flavor to the radio program, thereby extending its reach.

### Developing Regional Capacity

NCP started with the premise that development of social marketing capacity at selected regional institutions was key to assuring a steady flow of trained IEC managers for government and NGO nutrition programs. NCP leaders also hoped that building regional capacity would diminish the need for outside technical assistance and the unhappy feelings that often accompany this form of foreign

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<sup>1</sup> Mali, Burkina Faso, Honduras, Peru, Niger, and the Sudan

aid. Three institutions were selected for priority attention:

- Nutrition Institute of Central America and Panama (INCAP);
- Center for Teaching and Research in Communication (CERCOM) at the National University of Côte d'Ivoire; and
- African Nutrition Communication Network (RENA), at the University of Liège in Belgium, and the University of Benin in Togo.

To complement other activities in West Africa, NCP provided technical inputs into three regional workshops organized by FAO. NCP also assisted Emory University (Program Against Micronutrient Malnutrition) and the U.S. Peace Corps in curriculum design, since both of these institutions have training programs in nutrition education.

## **INCAP**

Between 1989 and 1994 NCP provided multifaceted assistance to the Nutrition Institute of Central America and Panama (INCAP), based in Guatemala. This assistance was designed to expand the institution's capabilities in the use of nutrition communication technologies and to establish a communication training capacity for the Central American region. NCP's broad-based support was formulated in response to INCAP's desire to incorporate a consumer-centered approach in all levels of its work, from research and product development to transfer of technologies to member countries in the region.

NCP assistance included: (1) a series of orientations on social marketing for headquarters and country technical staff; (2) development of a 15-week course on social marketing as part of the Master's degree program in Food and Nutrition at INCAP; (3) support for a social marketing "practicum" for a multidisciplinary INCAP team; and (4) technical assistance to develop a diarrhea management study carried out in five countries, which focused on formative research and recipe development.

**Staff training.** NCP helped INCAP staff to assess training needs in nutrition communication and to develop a tiered training plan for the various technical levels of INCAP staff. In 1991, NCP organized a week-long workshop entitled Communication for Technology Transfer in Nutrition and Health (COMTEC) for INCAP education and training advisors. Twenty INCAP advisors to ministries of health, education, and agriculture in six countries participated in the workshop, which was held in Tela, Honduras. Based on a pre-workshop assessment, the workshop stressed planning and evaluation skills. NCP also organized a one-day mini-course on behavior analysis for eight INCAP staff members involved in a dietary management project.

**Graduate-level course.** The social marketing course, which is the first of its type in the region, provides a comprehensive curriculum on the theory and practice of social marketing and

communication as applied to food and nutrition issues in the region. Doctors, nurses, nutritionists and food technicians from all over Latin America come to INCAP to study, so the course is likely to have far-reaching, long-term effects on health and nutrition programs in the larger region. First taught in the semester beginning in January 1995, the course is designed to train nutrition specialists to manage communication programs. It provides students with practical problem-solving skills and experiences through field work.

INCAP staff helped to structure the overall content and format of the course and participated actively throughout the development process. The course was designed by social marketing experts from several U.S. universities, including Cornell University, the University of Southern Florida, the University of California at Berkeley, and Georgetown University, with input from AED staff working on the NCP and Healthcom projects and other experts.

**Practicum.** In order to provide practical experience to INCAP staff, NCP assisted in the development and implementation of the Santa Maria de Jesus water and sanitation communication project. NCP helped to plan and conduct the formative research, the behavioral analysis of handwashing behavior, and product testing of the "tippy-tap," a water-saving device that encourages more frequent handwashing. The project provided an opportunity to work with INCAP researchers from several disciplines in order to demonstrate the role of communication research and activities within the context of a larger public health effort. As a result of the practicum, INCAP staff are now able to replicate the communication process in other settings.

**Diarrhea management study.** In order to develop the communication component of INCAP's Dietary Management of Diarrhea Project, NCP conducted a workshop for teams from five participating countries. The teams developed study protocols during the workshop and returned to their countries to finalize the protocols and conduct formative research. Based on this research, nutritional recipes were developed and promoted for children with diarrhea.

## CERCOM

The National University of Côte d'Ivoire attracts students from all over West Africa and is regionally unique in offering advanced degrees in communication. NCP began its collaboration with the University's Center for Teaching and Research in Communication (CERCOM) in 1989 by inviting CERCOM staff to help plan a regional social marketing workshop, "Setting a Strategy on Course," for 17 participants from seven francophone countries. This experience served to showcase the University's excellence and its potential as a regional training center.



NCP took two principal routes to building up CERCOM's capacity to teach communication and social marketing for nutrition: involvement of CERCOM faculty in technical assistance assignments throughout the region, and co-teaching training courses in the region. Examples of regional assignments include: execution of KAP surveys in Burkina Faso and Niger; development of a breastfeeding brochure for La Leche League in Côte d'Ivoire; and assistance in initiating production of radio dramas in Mali and Burkina Faso. Curriculum development and training included participation of CERCOM staff in conducting the RENA regional training workshops for francophone Africa held at the University of Bordeaux and the University of Liège. During the summer of 1991 a faculty member interned at AED headquarters, where he began identifying appropriate materials and case studies for a new course on social marketing.

Although plans for a semester-long course in social marketing were approved by the University and work was initiated in 1993, the project had to be dropped in 1994 for lack of REDSO/WCA support. CERCOM, however, has since initiated development of a month-long communication training course with support from UNFPA and has begun plans for a degree course.

## RENA

NCP worked closely with the African Nutrition Education Network (Reseau pour l'Education Nutritionnelle en Afrique--RENA) to build it up and assist in finding a regional institution to house the network, which was created with funding from the European Community. NCP staff collaborated with the University of Liège in Belgium to design a three-week course for managers of nutrition communication programs in francophone Africa.

In 1989 NCP helped to conduct RENA's first workshop on communication planning, which was attended by nutrition and health education directors from 13 African countries. The workshop covered management of communication activities, including audience research and evaluation. Because of the policy-level position of many of the participants, the topic of setting nutrition and communication priorities was a major focus. Participants worked on case studies to examine nutrition problems and to determine which ones were suitable for communication interventions.

NCP also assisted RENA in conducting its second communication workshop, which took place in 1991. The two-week workshop was designed for nutrition communication specialists and focused on the planning process with special emphasis on research and strategy formulation. Workshop sessions included an interactive case study and focus group discussions. The 22 workshop participants came from 10 francophone African countries; trainees included the Niger Vitamin A Communication Team.

Although it had been anticipated that CERCOM at the University of Abidjan would take over responsibility for RENA training from the University of Liège, the Government of the Côte d'Ivoire decided not to underwrite the effort. The University of Benin in Lomé, Togo which did take over oversight of RENA has not been active in training.

## **FAO Sahel Workshops**

During 1992 and 1993, NCP assisted the FAO Sahel Regional Vitamin A Communication Project in conducting two three-week workshops on radio production and audio-visual materials (chiefly slides). NCP staff and their national counterparts served as training facilitators and helped to prepare creative briefs to be used during the workshop.

## **PAMM**

NCP collaborated with Emory University to design the modules for a five-week training course in social marketing, which was inaugurated in 1992. The course, part of the PAMM -- Program Against Micronutrient Malnutrition -- is an international effort to train program managers from developing countries. In 1993 NCP planned and conducted a one-week session on communication planning and contributed to the modules on managing advertising agencies and production. NCP provided support for the 1992 and 1993 courses.

## **Peace Corps**

The Office of Training and Program Support of the U.S. Peace Corps requested NCP assistance in developing a training course for health and nutrition volunteers worldwide. Based on extensive interviews and focus group discussions with present and returned volunteers as well as trainers, NCP designed a three-week course. The course is designed to introduce pre- and in-service volunteers to key communication principles and skills that they can apply to their work. It shows ways that volunteers can apply the consumer orientation of social marketing at the community level, using local resources and technical skills. The 278-page training manual for the course is highly interactive, with emphasis placed on field practice. "Real-life" examples are included, with a special focus on improving the micronutrient status of communities.

## **Strengthening the Capacity of PVOs**

Overall, about 25 percent of all NCP training events were conducted for U.S.-based PVOs and their overseas staff. NCP's working partnership with PVOs developed during the Child Survival Workshop for Private Voluntary Organizations (PVOs), held in Lake Havasu City, Arizona in January 1988. The workshop, which was sponsored by USAID's Food for Peace and Voluntary Assistance Bureau, brought together representatives of 20 PVOs. NCP organized a session on qualitative assessment techniques and reviewed each organization's training needs in nutrition communication.

Following the meeting, NCP helped to organize a working group of the 20 PVOs active in nutrition.

These PVOs wanted to meet periodically to discuss common problems, share insights and field experience, and collaborate in designing communication guidelines and training materials. The most active members of the group, dubbed the "Boston 10," were Freedom from Hunger Foundation, the Peace Corps, Save the Children Foundation, CARE, Catholic Relief Services (CRS), and Foster Parents. During the three years of peak activity (1987-1990), the group held several meetings to discuss training materials. These meetings were generally held in conjunction with the annual conferences of the American Public Health Association and the National Council for International Health.

In addition to sharing their experiences, the PVOs requested training in growth monitoring and promotion (GMP) and social marketing. A needs assessment conducted by NCP in 1988 found that U.S.-based PVOs active in nutrition and food programs were most interested in obtaining training in strategy development, materials development, and focus group discussions and other qualitative research methods. Following are some examples of the kind of training sessions organized for PVO headquarters and regional staff:

- **Strategic approaches in GMP.** In June 1989 NCP sponsored a three-day workshop for five PVOs and the Peace Corps to offer each organization an opportunity to share successes and concerns about implementing growth monitoring and promotion activities. Each PVO invited two field staff from nine countries to present a case study. Headquarters staff presented their perspectives and GMP experts provided advice on key technical issues. Major strategy conclusions as well as the 11 case studies from around the world were summarized in a report entitled *Promising PVO Strategies in Growth Monitoring and Promotion*, which was widely distributed to PVOs and other agencies.
- **Training skills enhancement.** In 1992 NCP held two regional workshops entitled "Learning Principles and Training Techniques Applied to Nutrition" for the training staff of four PVOs working in Latin America and the Caribbean. Participating NGOs were CARE, CARITAS, Project Share, and Project Concern International. Six countries--Bolivia, Dominican Republic, Ecuador, Guatemala, Honduras, and Peru--were represented. A total of 32 PVO training staff attended the one-week workshops, which were held in Bolivia and Guatemala. Workshop participants developed training plans on nutrition-related topics, including promotion of donated food and the use of nutrition education materials by community-level staff.
- **Materials development.** NCP held a workshop focused on managing development of print materials in Guatemala in November 1992. The workshop was part of a regional La Leche League seminar for volunteers working with mother-to-mother support groups.

- **Ethnographic research.** In 1988 NCP held a ten-week course on rapid ethnographic assessment in Niger. The training was geared to obtaining culturally relevant information needed to design communications support for the GMP and infant feeding programs. The course consisted of a one-week orientation and one week of supervised field work. It was attended by CARE, Helen Keller International, the Peace Corps, and the Niger MOH.
- **Training of trainers in Latin America.** In February 1994 NCP conducted a five-day skills development workshop for 20 CARE regional trainers working in nutrition-related projects in eight countries in Latin America and the Caribbean. The workshop, which was held in Costa Rica, focused on skills development, impact evaluation, and the training of community members. Participants drafted a regional training strategy for incorporating training into CARE projects.
- **Message design and pretesting.** In 1992 NCP helped the local affiliate of La Leche League in Honduras to develop a series of simple, graphic materials on breastfeeding. The series includes a manual for volunteer mothers who counsel other mothers and take-home materials for mothers who give birth in hospitals. NCP assisted in training local staff in conducting focus group discussions and interviews with mothers and in pretesting components of the series.

Many other PVO project and field staff were also trained in conjunction with country projects.

The Food and Voluntary Assistance Office (FVA) provided \$25,000 for NCP to assist CARE and CRS to strengthen their staff capabilities in nutrition education. Examples of training activities conducted under this buy-in are:

- **Orientations for headquarters staff.** In 1989 NCP provided orientations for CRS and CARE headquarters staff on approaches to growth monitoring and social marketing.
- **Training for country-level staff.** NCP helped to plan and conduct a regional seminar for CARE staff in Latin America on "Improving Health/Nutrition with PL480 Commodities," which was held in Guatemala in 1989. NCP led sessions on experiences of successful nutrition activities, with special attention to the targeting of supplementary food to children under age three.
- **Pretesting skills.** In 1990 NCP held a series of three two-day workshops to train CARE field staff coordinators and field researchers in the use of focus group discussions to pretest print and video materials. The workshops were held in Bolivia, the Dominican Republic and Guatemala. Representatives from six Latin American/Caribbean field offices attended.

## Testing New Approaches to Interpersonal Communication

Because nutrition-related behavior change relies so heavily on communication with mothers and other caregivers, NCP gave special emphasis to improving interpersonal skills of field staff working in nutrition, health and growth promotion. Three major initiatives--Let's Communicate, Learning to Listen to Mothers, and Healthy Communities--focused on training materials designed to improve interpersonal communication and counseling skills among community workers. These initiatives led to several training manuals and supporting materials in four languages as well as a Spanish-language video. Field staff have been very appreciative of NCP's training materials. Requests for additional copies have been far greater than anticipated, and the manuals have already been reprinted several times and are currently distributed by BASICS.

### **Let's Communicate**

Few nutrition training materials on interpersonal communication exist in Spanish. PVOs working in child survival programs identified a training video on counseling skills as an important need in Latin America. After two years of development, NCP issued a Spanish-language video, entitled *¡Comuniquémonos, Ya!*, which is designed to train nutrition educators and health workers in interpersonal communication for growth monitoring and promotion. A *Trainer's Guide on Interpersonal Communication* was developed to promote effective use of the video in training sessions.

Produced in collaboration with UNICEF, the 23-minute video and accompanying 57-page trainer's guide are designed to be used in a half-day's training session to supplement a program's GMP training. They have been used widely by trainers throughout the Latin America/Caribbean region with village health workers, auxiliary nurses, and other staff who monitor the growth of children.

Prior to its release in 1991, the video was extensively pretested. First, the storyboards for the video were pretested in six Latin American countries to ensure that the messages and approach were appropriate. Second, the trainer's guide was developed in collaboration with PROCOMSI, a Bolivian group working in nutrition education. Then the video and the trainer's guide were field tested in Guatemala and Peru by two local PVOs. (See Chapter 5 for a description of a companion piece, *Field Note: Producing a Video on Interpersonal Communication*, which documents the process of producing the video and offers suggestions for the production of training videos and complementary materials.)

NCP distributed 500 copies of the video and 1,000 copies of the trainer's guide, both in Spanish. Feedback from the field has been extremely positive. Following are some of the comments from program managers:

- "[*¡Comuniquémonos Ya!*] is a good tool for improving the two-way communication between health promoters and beneficiaries." -- CEMAT, Guatemala;

- "The health promoters of our project identify with the characters in the video. They believe that these techniques will better their communication with members of the community. They are very motivated to apply the techniques in their daily work." -- CARE, Peru;
- "The video was shown three times to three groups of health workers...[the reaction] was excellent and was a great help. It was used in brainstorming sessions and question groups." -- UNICEF, Ecuador.
- "Comunicuémonos Ya is working well for us." -- WIC Program, New Mexico

### **Learning to Listen to Mothers**

In recognition of the need for additional materials promoting two-way communication between the mother and community health worker, NCP developed a training-of-trainers' manual entitled *Learning to Listen to Mothers: A Trainers' Manual to Strengthen Communication Skills for Nutrition and Growth Promotion*. This 88-page manual offers a set of training sessions on how to communicate effectively with mothers and other caretakers of young children so that they can be active problem solvers.

The manual illustrates how fundamental, tested methods of adult learning can be applied to training health workers in growth monitoring and promotion. It recognizes that current GMP training programs typically focus on how to weigh children and chart growth and thus neglect health workers' critical function in advising caretakers on nutrition. Most programs do not provide health workers with the skills, orientation, or motivation they need to communicate effectively with caretakers. Using the manual, trainers model ways to communicate openly with health promoters so that they, in turn, can communicate effectively with mothers in the context of their GMP activities.

Published in 1993, *Learning to Listen to Mothers* was developed after extensive pretesting in five countries:

- In Bolivia, NCP collaborated with PROCOSI in training 21 health workers.
- In Honduras, Freedom from Hunger/Meals for Millions used the manual to train 10 auxiliary nurses and Ministry of Health supervisors.
- In India, the Centre for Youth and Social Development and PLAN International organized a workshop with 15 community health workers. The trainers found the manual clear and effective. Participants found the small group discussion and role plays most valuable.

- In Indonesia, NCP collaborated with Project Concern International to train 15 supervisors of community health workers. A second round of pretesting was done to develop a supervisor's guide, including an observation checklist to aid in assessing community health workers' skills in talking with mothers. Interviews with mothers confirmed that the new counseling approach was effective. Mothers who had interacted with the trained village health workers remarked on the worker's improved counseling skills, including listening without interruption and offering appropriate advice for their specific problem.
- In Mali, sections of the manual were adapted and used in a training course for 28 community health workers from PVO-funded projects as well as government and PVO health specialists.

The manual was revised to reflect the reactions of field staff. The pretesting also generated ideas on adapting the manual to local needs and provided concrete examples of problems that field staff frequently encounter.

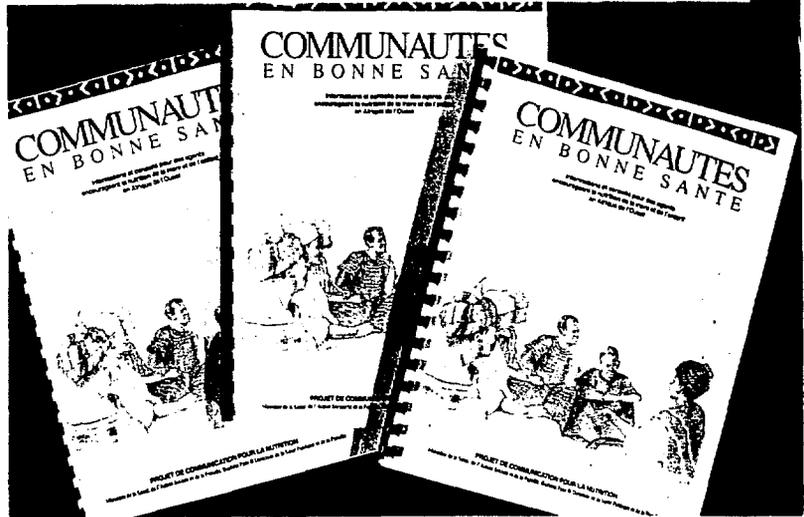
After careful evaluation, the trainers' manual was translated into Spanish and Bahasa Indonesian. About 2,500 copies of the English-language version have been distributed in Africa, Asia and the Caribbean. In addition, 718 copies in Spanish (entitled *Aprendiendo a conversar con las madres*) and 1,000 copies of the Bahasa Indonesian version (entitled *Belajar Mendengarkan Kepada IBU - IBU*) have been distributed.

Trainers and program managers have been enthusiastic about *Learning to Listen to Mothers*. Feedback to date includes:

- "This manual is not only applicable to different programs and very useful for trainers, but it also helps participants recognize and value the importance of quality communication with mothers in search of better health for their children."
- "The strength of this manual is that, although it is very detailed, it is flexible to changes and adaptations."
- "a simple practical guide which will be used mostly by Regional and District Health Training Teams when training peripheral health workers of GMP"

## Healthy Communities

From its work in West Africa, NCP identified the need for community-based nutrition assessment and counseling in rural areas. Accordingly, NCP developed a Five-Step Approach: (1) dialogue with the mother to evaluate the immediate problem; (2) reflection and priority setting; (3) "negotiation" of concrete actions contributing to a short-term solution; (4) review of the negotiated actions; and (5) notetaking to guide agent follow-



up. These notes cover individual case management, including indications that other problems may be contributing to a child's poor health and nutritional status, as well as communication and mobilization activities to undertake with the community at large.

To disseminate these ideas to a wider audience, NCP developed a three-volume training manual entitled *Communautés en Bonne Santé: Informations et conseils pour des agents encourageant la nutrition de la mère et de l'enfant en Afrique de l'Ouest* (Healthy Communities: Information and advice for workers promoting maternal and child nutrition in West Africa). The three volumes cover: (1) key nutrition actions and background information (50 pages); (2) counseling and negotiation skills (121 pages); and (3) group communication skills (51 pages). NCP also produced a health agent's bulletin, *Sur le Chemin de la Santé* (On the Road to Health), and a professional notebook, *Le Compagnon Villageois* (The Village Companion). These materials are available in French, except for volume three, which is in English; UNICEF plans to translate it into French.

NCP used *Communautés en Bonne Santé* and its related materials in training courses for 320 government health agents in Burkina Faso and for 60 PVO and regional MOH staff as well as rural development agents, agricultural agents, and teachers in Mali.

## CHAPTER 4

### REACHING POLICYMAKERS

Margaret Parlato  
Jay Ross

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#### Need for Stronger Support from Policymakers

Nutrition interventions require long-term, substantial investments in order to improve the nutritional status of large populations. Early on in the NCP project, NCP staff realized that the level of support for nutrition programs fell far short of the need. Also, investments in nutrition have been low relative to those in other primary health care sectors--many of which are adversely affected by poor nutrition.

Policymakers have not recognized nutrition as an important input to development, although they have seen it as a desirable outcome of development. Also, nutrition programs have been seen as less cost-effective than other primary health care interventions. Recent studies have shown that good nutrition is an important contributor to both human and economic development and that nutrition programs are highly cost-effective. These findings need to be more widely disseminated.

The basic problem is that most decision-makers do not understand the importance of good nutrition and its widespread impact on a broad range of development sectors. For example, most finance ministers are unaware of the hidden costs of poor nutrition, including lower worker productivity, premature death, chronic poor health, and diminished mental capacity. Even some health officials do not recognize key linkages between poor nutrition and common health problems such as children's susceptibility to disease, high infant mortality rates, and life-threatening childbirth complications. In the Sahelian countries where NCP worked, the concept of malnutrition was poorly understood and usually equated with "hunger." This seriously limited interest in more subtle forms and pernicious problems of mild to moderate child malnutrition, micronutrient deficiencies, and sub-optimal dietary practices.

Furthermore, many decision-makers are poorly informed about low-cost nutrition interventions that could lead to rapid improvements in people's health and productivity. Leaders in many development sectors have assumed that poor nutrition is an inevitable and immutable condition linked to poverty. Although affordable interventions have made dramatic improvements in nutritional status even among the poorest sectors of the population, this information has not filtered through.

#### Overview of NCP Initiatives

In recognition of these needs, NCP staff identified policymakers as a priority audience for the project. Where specific gaps in knowledge or understanding existed, NCP developed specific strategies to

address them. NCP's major goal was to convince policymakers--political leaders, financial managers, and health officials--to invest in nutrition programs. NCP also sought to link nutrition to child survival interventions that have stronger political support in many countries.

The mass media components of NCP projects have had the ancillary benefit of educating policymakers on key nutrition issues and raising the profile of nutrition programs. In addition, NCP has conducted five major activities targeted specifically to policymakers:

- An interactive computer model, known as PROFILES, which shows the connection between nutrition and high-priority development objectives in vivid graphic displays;
- Four videos on micronutrient deficiencies, which were used to explain to lay audiences how these deficiencies affect health and what can be done to correct them;
- A clear, concise research report on micronutrients that describes what is being done to prevent acute micronutrient deficiencies;
- A special initiative to educate African health officials on key nutrition problems in the region and their impact on health; and
- Conferences and publications to assist nutrition leaders in documenting and publicizing the impact of nutrition interventions.

These initiatives are described in more detail in the following sections.

### PROFILES Computer Model

One of the most useful tools in educating policymakers on nutrition issues has been NCP's interactive computer model, known as PROFILES (Productive Life Begins with Food). Based on the latest knowledge in nutrition and other relevant data, the model demonstrates the impact of good nutrition on human and economic development. Designed for use on a microcomputer, PROFILES synthesizes nutrition data, calculates costs, and graphically displays the impact of nutrition interventions on a population's health, productive capacity and economic status.

Because it uses colorful graphics and other visual representations, PROFILES holds the audience's attention and conveys Important concepts clearly. It is interactive, which means that audiences can modify the data and assumptions used and then view the results on the computer screen.

The model can be used to show the effects of protein-energy malnutrition, micronutrient deficiencies, breastfeeding behavior, and maternal malnutrition on mortality, fertility, health and education costs, worker productivity, school performance, and mental development. To date, over 60 relationships have been modeled. These effects can be projected for 30 years into the future. PROFILES can be

tailored to individual countries by adding national data on population, nutrition indicators, and economic conditions. By incorporating different assumptions such as continuation of the status quo, introducing a specific nutrition intervention, or meeting the goals of the World Summit for Children. PROFILES shows the various consequences resulting from government action (or inaction). Parameters such as costs of clinic visits and prevalence of breast-feeding can be modified on-line to permit policymakers to see immediately the effects of different assumptions.

PROFILES was developed by NCP/AED with the assistance of The Futures Group and with substantial technical contributions from leading nutrition experts and economists. The development team began work in January 1992. The first prototype was ready for review by UNICEF in September 1992. It was subsequently presented at four international meetings attended by senior nutrition and health officials during 1992 and 1993.

After viewing the prototype presentation, UNICEF invited NCP to introduce the PROFILES model to Bangladesh. The Ministry of Health hoped to persuade the government to give greater priority to nutrition and to start a nationwide community-based nutrition program. Beginning in November 1992 NCP staff worked closely with UNICEF-Bangladesh, the World Bank, the Bangladesh Ministry of Health, and nutrition experts in the country. In 1993 the Bangladesh cabinet ministers and permanent secretaries viewed the PROFILES presentation. In May 1995, the Bangladesh government announced that it had approved a \$59 million World Bank loan to conduct a seven-year community nutrition project. Senior MOH and World Bank officials indicated that PROFILES played a key role in focusing high-level attention on nutrition problems.

The second major application of PROFILES was in the Philippines, where the Asian Development Bank, the National Nutrition Council, and the Department of Health joined forces to design and advocate an early childhood development program. PROFILES was brought in to help in the advocacy process and to generate estimates of the economic payoffs from nutrition improvements. NCP worked with a team of national experts to prepare a PROFILES presentation entitled "Fueling the Economic Dragon" to show the estimated payoffs. The Asian Development Bank in the Philippines wrote to USAID: "We consider PROFILES to have great potential for raising investment in child nutrition to higher levels . . . in the Asia and Pacific regions."

Other applications of PROFILES are:

- In Uganda, it was used by the World Bank and the MOH in support of increased investment in nutrition programs.
- In Senegal, a French version of PROFILES was prepared for use in policy analysis and dialogue by ORANA, the regional nutrition institute
- In Africa, the Commonwealth Regional Health Secretariat for East, Central and Southern Africa used PROFILES to demonstrate the benefits of improved nutrition on child mortality and morbidity in five African countries.

- At Emory University's PAMM training course, PROFILES has been used several times in presentations. Students also use it develop models of their home countries.
- When the U.S. House of Representatives Subcommittee on Foreign Agriculture was deliberating on whether to fortify donated foods, it requested AED to make a PROFILES presentation in March 1994.
- The Micronutrient Initiative, housed at the International Development Research Center (IDRC), is supporting the creation of special presentations for bilateral donors that advocate greater investments in preventing micronutrient deficiencies.

Numerous demonstrations of PROFILES have been given at professional meetings and conferences, training courses, and other gatherings. Demonstrations are often requested by nutrition and health organizations as well as donor agencies.

#### Ending Hidden Hunger Videos and Television Broadcasts

As a consciousness-raising tool, NCP collaborated with UNICEF to produce *Ending Hidden Hunger*, a 20-minute video on micronutrient deficiencies. The video was designed to promote greater awareness among decision-makers of the global proportions of micronutrient deficiencies and to present viable programmatic solutions. The English version is narrated by Sir Peter Ustinov. Spanish and French versions are also available. Funding for the video was provided by UNICEF, WHO, the International Development Research Center (IDRC) and USMD. Its first public showing was at the International Conference on Nutrition, held in Rome in December 1992. NCP has distributed approximately 250 copies of *Ending Hidden Hunger* to selected USMD Missions, Ministries of Health, and NGOs in developing countries, in appropriate video formats.

UNICEF distributed the video worldwide with an intensive media plan including broadcast on nationwide TV around the world. NCP continues to distribute the videos in response to requests from organizations in developing countries. Using existing film footage, UNICEF also developed three shorter videos on iron, iodine and vitamin A, which were released in May 1993. These 10-minute videos were designed to focus attention on a single micronutrient, as a starting point for further education.

#### Monograph on Micronutrients

To document the problem of micronutrient deficiency and explain what is being done about it, NCP prepared a monograph entitled, *Micronutrients: Increasing Survival, Learning, and Economic*

*Productivity.* This report, which was written at USAID's request, explains why micronutrient malnutrition is an important global problem, the costs and benefits of key interventions, and USAID's role in the international donor community. USAID supports the International Conference on Nutrition goals to eliminate iodine deficiency and reduce vitamin A and iron malnutrition.

Attractively illustrated with graphs and photos, the report is carefully researched, presenting well-documented conclusions from research studies around the world. It points out the high costs of micronutrient deficiency: child deaths that could have been prevented by increased vitamin A intake, anemia that hampers worker productivity and children's school performance, and diminished intelligence among children born to iodine-deficient mothers. Micronutrient deficiencies affect nearly one in three of the world's people. The report describes low-cost technologies with major payoffs and gives an overview of USAID's programs to promote these technologies.

Published in 1993, the *Micronutrient* monograph has been distributed to U.S. and international policymakers as well as Ministries of Health and NGOs in developing countries. The OMNI Project has distributed about 1,000 copies of the monograph. OMNI staff consider it an indispensable resource to educate a wide variety of audiences on micronutrient deficiencies. They also praise it as an advocacy tool that explains the economic rationale for addressing micronutrient deficiencies. It is routinely distributed at nutrition training courses.

#### Outreach to African Health Leaders

Based on its experiences in several African countries, NCP decided to mount a special initiative to educate African health leaders and other policymakers on key nutrition issues. NCP staff had learned that many basic issues not well understood by health leaders: the connection between exclusive breastfeeding and prevention of diarrheal disease, the effects of giving infants water to drink, the extent to which breast-feeding suppresses fertility, and concern about whether poorly nourished women could provide adequate breastmilk.

NCP decided that policymakers needed to realign their thinking on infant feeding. After careful analysis of the issues, it organized a five-day meeting for French-speaking African health specialists. This meeting, the International Forum for Francophone Africa on Infant Feeding and Child Survival, was held in Lome', Togo on September 9-13, 1991. NCP planned the meeting in collaboration with the Togolese Nutrition Association (A.T.G.N.) and the PRITECH project.

Roughly 100 people attended the conference. Eleven West African countries sent national teams, consisting of MOH program managers working on nutrition, diarrheal disease and family planning, hospital-based clinicians, and researchers. Other conference participants included health and nutrition experts and representatives of donor agencies. After the conference, NCP felt that an immense conversion of thinking took place.

The conference also prompted several countries to develop new nutrition initiatives. Following the

conference, the Director of Public Health in Senegal requested NCP assistance in promoting exclusive breastfeeding and requested a visit by an NCP representative to begin work on breastfeeding promotion activities. Other activities were initiated in Burkina Faso, Cameroon, Côte d'Ivoire, Mali, Niger and Togo. UNICEF produced a series of radio programs for the region, based on the information presented during the conference.

In conjunction with this conference, NCP co-edited a monograph entitled *Women's Nutrition: An Essential Step for Child Development* with Paris-based Centre International de l'Enfance (International Children's Center). Published in 1994, the monograph contains a collection of 14 scientific articles assembled from leading medical journals and translated into French to facilitate their use in francophone Africa. The articles were selected to examine technical issues frequently raised by public health officials in developing countries. These issues include maternal nutrition, the ability of poorly nourished women to breast-feed, and the scientific basis for exclusive breast-feeding.

### Conferences for Nutrition Planners

In order to assist nutrition experts in sharing and disseminating information about successful nutrition interventions, NCP helped to organize the International Nutrition Planners Forum (INPF), held in Seoul, Korea on August 15-18, 1989. This conference, which was the fifth in a series of international conferences held by the INPF, brought together nutrition practitioners, policymakers and administrators. Attendees included 30 participants from 22 developing countries plus other nutrition experts and donor agency representatives.

The purpose of the conference was to identify and synthesize elements of successful nutrition programs. Participants presented extensive case studies of successful nutrition programs in Indonesia, Thailand, India, Tanzania, Brazil, and Bolivia. Each case study discussed six elements identified to be crucial to successful nutrition programming. These elements are: political commitment, community participation, effective training, targeting audiences; responsive management information systems; and replicability and sustainability. Nutrition programs from eight additional countries were also reviewed. These case studies provided powerful evidence that nutrition programs can be successful and provided a substantial body of information on how to achieve success.

NCP planned and organized the conference, including providing technical and logistical assistance. It also edited and published the final conference report, entitled *Crucial Elements of Successful Community Nutrition Programs*.

NCP also helped to plan the sixth international conference of the International Nutrition Planners Forum, held September 4-6, 1991 at UNESCO headquarters in Paris. AED staff helped to develop the conference program, provided speakers and support to the country teams to develop their new communication projects.

The 1991 INPF conference focused on communication interventions, and hence served as a vehicle to educate nutritionists on the social marketing methodology and its potential impact on nutrition behavior. The selection of this topic indicates that nutritionists are interested in shifting to approaches that reach large audiences and advocate specific nutrition behaviors.

## CHAPTER 5

### STATE-OF-THE-ART SYNTHESIS

Cindy Arciaga

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NCP developed a number of state-of-the-art synthesis to guide nutrition communication programs to put technical issues into a framework that communication planners could use to identify small, concrete actions that can be implemented at the household and community level. Many of these synthesis were prepared in collaboration with technical agencies of the United Nations, universities, and other sources of technical expertise. Dissemination has also been done in collaboration with different specialized networks such as: APHA's Clearinghouse on Mothers and Children, the International Children's Center in Paris, and the Society for Nutrition Education. The following publications and video productions have been widely disseminated:

#### *Questions and Answers on Infant Feeding: A Panel of Experts Takes a New Look*

*Questions and Answers* is the result of an Expert Meeting convened in September 1990 to discuss issues related to the application of the A.I.D. Breastfeeding Strategy and the *Innocenti Declaration* at the household level. The multi-disciplinary panel was asked to review recent literature and reach a consensus where possible, to guide NCP's future work in infant feeding. Participants were also asked to highlight those issues requiring additional research or analysis before specific actions could be safely recommended.



Since its publication in 1991, this document has been reprinted 4 times in each language version—English, Spanish, and French. NCP has distributed the publication worldwide and copies have been featured in international conferences such as the World Conference on Pediatrics held in Rio de Janeiro, Brazil (1993); the Summit Meeting for First Ladies of Latin America in Cartagena, Colombia (1993); the Society for Nutrition Educators' International Nutrition Education Conference in Washington, D.C. (1992); the Combatting Communicable Childhood Disease (CCCD) Conference in Dakar, Senegal (1993); the Biregional Workshop on the Implementation of the International Code of Marketing of Breastmilk Substitutes, in Manila, Philippines (1994); and, the Familias de las

Americas Seminar held throughout Latin America. Individual organizations have also requested many copies of *Questions and Answers*.

**No. of copies printed:** 7,200 English, 5,300 French, and 3,500 Spanish

**Languages:** English, French, and Spanish

**Feedback:** "We feel that it is an excellent booklet and would appreciate receiving more..." (USAID/Bolivia); "We think [*Questions and Answers*] is a wonderful booklet and would like to include it among our conference materials for our Latin American Regional Conference." (La Leche League/Guatemala)

### ***Media Promotion of Breastfeeding***

*Media Promotion* reviews and summarizes the breastfeeding promotion efforts in over 25 countries. It includes sample communication materials which were used to reach audiences in different cultural settings. This document is aimed at planners who wish to learn from past successes, and to avoid pitfalls in the implementation of breastfeeding promotion programs. The report contains data from around the world showing that declines in breastfeeding can be reversed, and that the most successful programs have been those which were tailored to women's concerns. It focuses on issues that must be addressed in promoting breastfeeding, and includes sections on market research, message strategies, and important target groups.

*Media Promotion* has been reviewed in newsletters and journals such as the United Nations' Subcommittee on Nutrition (SCN) News; Health Technology Directions, a newsletter published by PATH; the World Health Forum, published by the World Health Organization; the Journal of Nutrition Education; and, Ecology of Food and Nutrition. Since its first distribution in 1989, NCP has reprinted a second and third edition.

**No. of copies printed:** 3,000

**Language:** English

**Feedback:** "You have done an excellent, very stimulating and useful work. I think that your approach to present mass media in the broader context of other breastfeeding promotional activities was very right." (Poland); "[*Media Promotion of Breastfeeding*] is very useful for us and our readers. It is also useful for program planners, health workers, and women in developing countries." (ORANA/Senegal); "This guide will serve as a useful reference material for us program planners in our efforts to promote stronger breastfeeding strategies in our country." (Nutrition Center of the Philippines)

### ***Breastfeeding in Latin America and the Caribbean (LAC): A Sampling of Promotional Materials***

This sampling of breastfeeding materials was developed as a supplementary manual to *Media Promotion of Breastfeeding* and specifically geared for use in Latin America and the Caribbean.

Color xeroxes of breastfeeding promotion materials illustrate how different approaches and graphic/print materials meet the needs of different program objectives and target audiences in the region.

**No. of copies printed:** 400 English, 600 Spanish

**Languages:** English and Spanish

### *Producing a Video on Interpersonal Communication*

This Field Note documents the production process for the video and includes recommendations for others embarking on the production of a training video.

**No. of copies printed:** 500 field notes

**Language:** English

**Feedback:** "[¡Comuniquémonos Ya!] is a good tool for improving the two-way communication between health promoters and beneficiaries." (CEMAT, Guatemala); "The health promoters of our project identify with the characters in the video. They believe that these techniques will better their communication with members of the community. They are very motivated to apply the techniques in their daily work." (CARE, Peru); "The video was shown three times to three groups of health workers...[the reaction] was excellent and was a great help. It was used in brainstorming sessions and question groups." (UNICEF, Ecuador).

### *Communication Strategies to Support Infant and Young Child Nutrition*

This is a compendium of case studies on communications presented at the International Conference held in conjunction with the Society for Nutrition Education's (SNE) annual meeting in DC, July, 1992 and was published by Cornell University's Program in International Nutrition. NCP distributor this reference for individuals interestd in how communication approaches have been used to promote improved nutrition practices around the world.

**No. of copies printed:** 1000 copies

**Language:** English

**Feedback:** "This material will be of great reference and research value to our staff and library researchers and a valuable addition to our growing collection of print materials." (Nutrition Institute Philippines)

### ***Breastfeeding Promotion in Central America: High Impact at Low Cost***

The LAC case studies prepared in collaboration with JHU and the Center to Prevent Childhood Malnutrition report on the results of three large-scale breastfeeding promotion interventions: PROALMA in Honduras, the Panama Breastfeeding Program, and CALMA's efforts in El Salvador. All three studies focus on the knowledge and attitudes of health professionals and on hospital-based practices.



**No. of copies printed:** 500

**Language:** English

### ***A Historical Review of the Panama Breastfeeding Promotion Project***

This document combines data from various sources to assess the impact of the Breastfeeding Promotion Project. The evaluation shows a substantial change in breastfeeding-related hospital practices after the breastfeeding promotion activity. Rooming-in increased, overall staff support for breastfeeding went up, and routine use of formula decreased. Using a number of different evaluation indicators, the different projects carried out in different regions of the country appear to have increased the mean duration of breastfeeding, and resulted in a longer duration of exclusive breastfeeding.

The Panama Project's decentralized approach to breastfeeding promotion was unique. Activities were independently planned and conducted within each region, allowing for substantial flexibility in programs. While project components varied, most local interventions were based on training health professionals and promoting changes in hospital practices. An additional component addressed women through mass media promotion that included posters, pamphlets, radio spots, and billboards. Special attention was given to the breastfeeding problems encountered by working women.

**No. of copies printed:** 250 English, 250 Spanish

**Language:** English and Spanish

## *Vitamin A Case Studies*

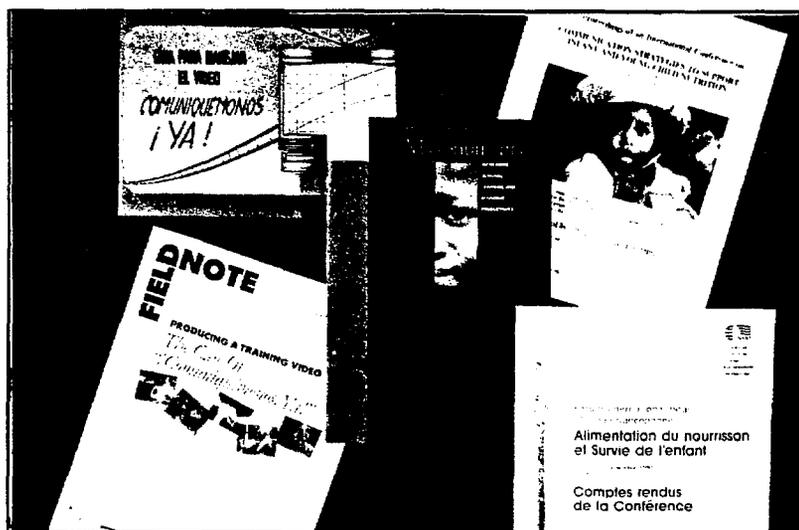
This document illustrates how communication programs can be designed to improve Vitamin A status in different contexts by applying the principles of behavioral science and social marketing. These projects, which were funded by the US Agency for International Development, used a systematic methodology based upon audience/ situation research and rigorous planning.

The Niger case study looks at a pilot project to test ways of diversifying food production and family diet under difficult climatic and horticultural conditions. The Philippines study examines how planners aimed to promote both production and consumption of green leafy vegetables in urban areas, as part of a new national emphasis on dietary solutions to Vitamin A deficiency. Two case studies focus on Indonesia. The ROVITA study looks at communication approaches to improve capsule distribution. The SOMAVITA project -- which followed ROTIVA -- was a bold three-pronged national effort to test models to change Vitamin A consumption patterns; to improve capsule distribution nationwide with an emphasis on high-risk provinces; and to develop NGP distribution and promotion systems in urban areas. These case studies were printed in collaboration with the OMNI Project which also managed the distribution.

**No. of copies printed:** 5000

**Language:** English

## *Communication to Improve Nutrition Behavior: The Challenge of Motivating the Audience to Act*



This background paper for the International Conference on Nutrition, held in Rome in 1992, presents evidence showing that nutrition communication works, summarizes common features of effective programs, and concludes with special issues for decision-makers. This paper was distributed at the conference as part of the official documentation for the event.

**No. of copies printed by NCP:**

This document was originally

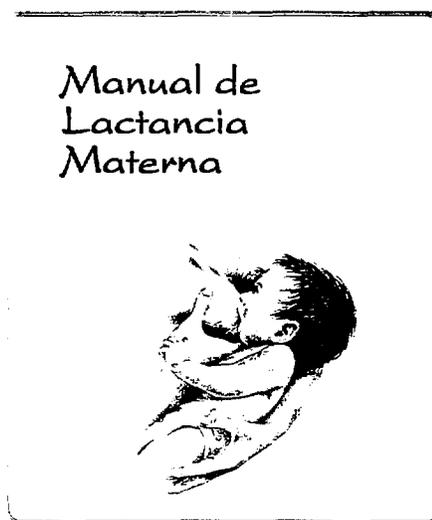
distributed as an official FAO/WHO publication to all ICN participants. NCP later reprinted 500 copies in English and 200 in French

**Language:** English and French

### ***Breastfeeding Reference Manual***

This Manual, developed in collaboration with the La Leche League Honduras, is specially designed for community health workers in Latin America who have minimum literacy skills. The richly illustrated guide contains practical information on how to help mothers breastfeed successfully and how to deal with commonly encountered problems related to breastfeeding, weaning and transition to an adult diet.

The Georgetown University Institute for Reproductive Health and Wellstart International contributed to development of the Manual. UNICEF funded printing for use throughout Latin America, as part of its Baby Friendly Hospital Initiative. AED is exploring ways of making use of the material in domestic programs with Migrant Head Start and WIC.



### ***The Options for Africa's Children: An Analysis of Data and Program Management Issues***

This publication reviews the state of maternal and child nutrition in Africa, in light of recent data demonstrating the effects of nutrition on child survival and long-term development goals.

**No of copies printed:** 500

**Language:** English

### ***Growth Monitoring and Promotion: Issues and Actions***

This document is one of two companion reports developed on growth monitoring. It summarizes the insights of a special group of experts convened at AED in December 1988 to systematically examine GMP problems and consider ways of resolving them.

**No. of copies printed:** 500

**Language:** English

### ***Promising PVO Strategies in Growth Monitoring and Promotion***

This second report documents the success of GMP activities in 11 PVO country project (and one Peace Corps country). Conclusions are drawn by field and headquarters people and other GMP experts on program design, communication, and tools and techniques.

**No. of copies printed:** 250

**Language:** English

### ***Malnutrition and Child Mortality: Program Implication of New Evidence***

In collaboration with BASICS and the SARA project, the Nutrition Communication Project prepared a short brochure summarizing recent research by Dr. David Pelletier and colleagues at Cornell University which quantifies the synergistic relationship between child malnutrition and risk of death from infectious diseases and underscores the increased risk of death even among children who are mildly and moderately underweight. The main audience for this brochure is USAID HPN officers. In addition to summarizing the research findings in relatively non-technical language, the brochure summarized lessons learned about key behaviors and strategies for preventing malnutrition in children and stresses the importance of including activities to improve breastfeeding, child feeding, and maternal nutrition in child survival programs.

**No. of copies printed:** 5000

**Language:** English, French, and Spanish

### Library

The Nutrition Communication Project established and maintained a "working library" and database of nutrition-related educational and training materials and technical documents. The library concentrated on collecting sample nutrition education and communication support materials as well as relevant documents which provide current information on the nutrition situation in the countries in which the project worked. The materials and database were made available to USAID Missions, consultants, and other organizations working in the field

#### **DATABASE SUBJECT AREAS**

Materials are categorized in the database according to the following subject areas:  
agriculture/home gardening; audio-visual/educational materials; breastfeeding; child-to-child; communication; dietary management of diarrhea; growth monitoring and promotion; health; infant feeding and weaning; maternal nutrition; maternal and child health; micronutrients; general nutrition; nutrition education; nutrition surveillance; reference; training; and, vitamin A.

In addition, NCP maintains country files including background and statistical data, information on nutrition projects, child survival and primary health care programs, relevant journal articles, and information from other USAID contractors, donor agencies, and PVO's.

### Response to Requests

NCP filled approximately 1,600 requests for NCP publications in the period extending from January 1990, when NCP first put out the publication: *Media Promotion of Breastfeeding*, through March 1995. In addition, NCP filled numerous requests for library materials, research and trip reports averaging 300 requests per year. Additionally, NCP developed a distribution plan for each of the NCP publications.

## CHAPTER 6

### LESSONS LEARNED AND CHALLENGES FOR THE FUTURE

Margaret Parlato

Peter Gottert

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Over the course of the Nutrition Communication Project a great deal has been learned. Synthesizing this experience in a few pages is obviously a daunting task. What follows are Lessons Learned which cut across projects in six countries and also capture some of what was learned in the many training, technical assistance, and other activities of the project. For more in-depth documentation of findings and successful approaches, the reader is referred to the "best practices" review prepared for the International Conference on Nutrition<sup>1</sup> and the Final Reports<sup>2</sup> prepared for each of the country projects, which provide rich descriptions of the planning and design of interventions and the insights gained from their implementation and evaluation. The conclusions from the series of West Africa Lessons Learned Seminars held at the end of the project provide additional insights.

#### KEY GENERAL LESSONS

- Nutrition communication activities can be successfully integrated with a wide range of child survival, community development, agricultural extension and women's programs, and can achieve targeted behavior changes within these different contexts. Success does not appear linked to any particular kind of implementation framework.
- Scale and institutional setting matter less than building a coherent system. Success can be achieved working through both the public and private sectors, including small NGO programs, national and large-scale government-operated efforts, NGO networks covering dozens of organizations, as well as hybrid public/private undertakings.
- Significant improvements in a number of nutrition behaviors (breastfeeding, infant feeding, vitamin A, and maternal dietary practices) can be achieved even in impoverished communities.
- Nutrition communication activities must begin with advocacy. Decision-makers generally need to first be convinced of the importance, feasibility, and cost effectiveness of investing in nutrition interventions.

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<sup>1</sup>Parlato, Green, and Fishman. Communication to Improve Nutrition Behavior: The Challenge of Motivating the Audience to Act, ICN Case Study, FAO/WHO Joint Secretariat for the Conference, FAO, Rome, December 1992.

<sup>2</sup> Final Reports for Peru, Honduras, Niger, Burkina Faso, Mali and the Sudan.

- It is beneficial to have clearly articulated and officially sanctioned national policy guidelines about the nutrition themes to be addressed by an education program. Nutritional science changes rapidly and public health officials are frequently not well informed about nutrition. Often existing nutritional norms must be updated before message design and training can take place, so that messages are not be out of sync with what the medical establishments accepts and with protocols and operational directives throughout the health sector.
- The following principles emerged as essential to success in improving nutritional practices, confirming lessons leaned from communication projects in other sectors:
  - **Select Specific Action-based Behaviors:** Experience shows that focusing on a limited set of very specific behaviors is key to improving nutrition. These behaviors must be feasible for the target audience to implement—in terms of cost, time, and compatibility with existing practices and beliefs. Specific behavioral targets allow a communication program to deal with each one in the multi-dimensional manner it deserves. This includes squarely addressing barriers to change by offering practical solutions; identifying motivational benefits; and providing the necessary reinforcement.
  - **Give Attention to Coverage:** Interpersonal, community, and mass media channels must be evaluated for their potential to reach sufficient numbers of each different target audience to achieve impact. A combination of channels is usually most effective.
  - **Maximize Exposure:** Frequency of contact, and repetition of messages, is important.
  - **Create Social Support:** Nutritional habits are deeply imbedded in family tradition and local customs. Behavior change can be facilitated by identifying each of the groups of people that influence the target audience or can facilitate the behavior by contributing financial, emotional, or other essential support. Different messages and strategies are required for each.
  - **Aim for Simplicity:** Most important is to begin getting the message out. Strategies should be simple to start with. New audiences and additional channels can be brought in gradually.
  - **Pursue a Long -term Effort:** Messages must be conveyed with enough saliency and for a long enough time that the practices being promoted become routine behavior, fully supported by social norms.
- Regional strategies for developing print materials and training modules have shown that national borders and cultural differences can often be transcended. Despite the opinion of many health professionals, print materials developed in one country can sometimes—with pretesting and limited modifications—be adapted for use in other countries. The savings in time, cost, and scarce technical input are considerable. Examples include a training video on

nutrition counseling for growth monitoring (*Comuniquemonos Ya!*) developed for Latin America and now in use throughout the continent as well as with immigrants in the US; a training module on nutrition counseling developed in four countries and now used in Asia and Latin America (*Learning to Listen to Mothers*); and storybook and counseling materials developed in Burkina Faso and now also used in Mali and Niger (*Awa* series).

- Collaboration with other Donors—which NCP initiated out of necessity and which was vigorously pursued—paid off. Although such efforts demand a considerable up-front investment in time for joint planning and coordination, the approach clearly maximizes the impact of scarce nutrition funds. Jointly produced products such as training courses, print materials, and videos benefit from widespread distribution and use. Support for the activities continues after USAID start-up involvement ends. And, when the donor works in other sectors, a nutrition emphasis is incorporated into areas such as child survival, agriculture, etc.

## LESSONS ABOUT PROCESSES AND APPROACHES

### Nutrition, Behavior, and "Products"

- Improved nutrition calls for repeated, sustained individual behavior change. Most changes that nutrition social marketing seeks to bring about (such as breastfeeding or improved diets during pregnancy) require daily performance (usually multiple times each day) over a period of years. This kind of behavior change is particularly hard to induce and maintain and requires long-term motivational approaches. NCP dealt with this issue by identifying "targets of opportunity," or specific, well-defined time periods that will benefit from behavioral changes. For example, pregnant women may be motivated to eat "well" and even to put up with the unpleasant side effects from iron supplements—knowing it is only for a short nine-month period. (Or less since most women don't know they are pregnant for the first 1-2 months). (CDC, for example, has found that pregnancy is a powerful target of opportunity for anti-smoking campaigns. Women are motivated to stop smoking for 9 months, although most will go back to smoking after the baby is born. Nevertheless, this is a high-payoff in terms of public health impact.)
- Nutrition social marketing needs to place special emphasis on developing culturally appropriate motivational strategies and reward systems. Nutrition, as a means to good health, has less immediate or tangible pay-offs for the consumer than contraceptives, or even immunizations. The rewards of adopting improved eating habits are usually not readily apparent in communities where malnutrition and its consequences are widespread, and improvements may not be visible for years. The challenge for program planners is to identify small but visible health improvements that will result from promoted behavior changes asked of women and other caretakers. Such visible improvements will serve as positive reinforcement for behavior changes that are in many cases difficult ones to make. (It appears, for example, that the incidence of diarrhea among exclusively breastfed infants may be perceptively—not just statistically—different enough that mothers recognize it. There is anecdotal evidence that moms with two or more kids notice that those who are/were exclusively breastfed had less sickness. NCP has found that this awareness is highly motivational.)

- Nutrition communication, like all social marketing, is consumer-centered. At the same time, a primary objective of nutrition promotion is to identify a web of behaviors related to given problems. Because of the special nature of nutrition and the kinds of behavior changes required, nutritional communication techniques must, when possible, design approaches that share the burden of behavior change among several family members. In most cases, it is not enough to encourage changes in the child's eating pattern, but also in the routine of the one who feeds him or her, prepares the food, brings the food, produces or pays for the food, and so forth. In order to eat a better diet during pregnancy, women may need increased financial support from husbands, who in turn, must be convinced of the need and desirability of providing this support. Nutrition social marketing looks at the attitudinal and behavior changes required of these multiple target audiences within the constraints of time, income, and socio-cultural systems. Hence, the target *beneficiary* is often not the target *audience* for behavior changes that impact tangentially, but critically, on the beneficiary's nutritional status.
- Strategies are also needed to reduce the time-economic and psychic costs of altering dietary patterns. Solid market research using approaches used by the U.S. food industry can help not only identify cost and convenience barriers, but also to work out practical solutions to these problems. "Psychic" costs are more difficult to understand and are challenging to change. Programs need to assess carefully whether the "psychic" costs of a proposed behavior are too great for change to be feasible (for example, asking women to think that vegetables are a substantive part of the meal rather than just a condiment, or changing what a man or woman thinks is the correct ratio between rice and vegetable or legumes in a meal). Psychic costs are often related to social norms. Over the long term, changing these may be key to promoting better nutrition. Communication programs should consider approaching these little by little on a long-term basis.
- Nutrition communication is characterized by product development. The "product" focus might mean development of fortified foods to meet consumer specification; experimenting with and promoting new food combinations; or promoting new food preparation or feeding patterns. Getting the *right product* is part of the process of promoting positive behaviors. Emphasis must be on development of products that are easy for the consumer to identify, that work nutritionally, are affordable, available, and that the consumer likes.

Techniques used by the food industry to develop and test-market new food products provide valuable insights for nutrition communication programs. However, social programs require close coordination by and between nutrition specialists (ensuring that the product has maximum nutritional salience) and marketing experts (who make sure that the consumer likes the product and can afford it). This kind of product development process is unique.

### **Structuring Interventions**

- Nutrition social marketing offers a unique opportunity to integrate disparate health, population, and agriculture interventions. Agricultural agents, for example, can be credible sources of information about certain nutrition practices, such as consumption of fruits and

vegetables by vulnerable household members, and increased production and consumption of vitamin A-rich foods. Combining program resources and/or promoters and educators in this way produces a serious multiplier effect, giving each program more "pay off" than it would otherwise have.

- Selection of nutrition interventions to address in a communication program should be based on thorough review of nutrition data and studies in the country, in order to target the most significant public health nutrition problems. Given the possibility of varying agricultural conditions, cultural practices, or economic situations, different interventions may also be needed for different areas of the country or for different socio-economic or ethnic groups.
- Concentrate on two or three specific nutrition-related behaviors and related interventions that can have a major nutrition impact. Scattershot approaches that seek to address a multitude of nutritional problems are doomed to fail because they cannot provide the necessary focus, reach, and frequency. It is more effective to analyze the situation carefully and select the two or three interventions likely to achieve an impact on public health.
- Communication activities should be phased, and effort should be made to begin *something* as soon as possible. Nutrition frequently lags behind other child survival interventions and program planners often find they are starting from scratch. To motivate collaborators and to raise awareness in the target populations, nutrition communication programs should arrive at the message dissemination stage as quickly as possible. In USAID-funded programs—which typically last from three to five years—program planners need to look for ways to start information flow to target audiences early by choosing strategies that are simple to get going. New channels can be added over time to increase reach and to target secondary and tertiary audiences.

### Capacity Building

- Four of the five country teams NCP worked with intensely had little or no experience in IEC. Beginning with a short pilot phase (12 months or less) and limited goals can be a highly-effective way to strengthen the capacity of such agencies and individuals and to build confidence. A pilot project allows staff to go through all essential steps—from planning to evaluation—in rapid succession. This approach (which was used in Niger, for example) also provides unusually rapid feedback on what works and doesn't work.
- Initiation of activities through NGOs—with their more highly trained staff and management capability, and with their ongoing programs—can enable projects to jump-start activities. This approach also allows the MOH flexibility in learning skills on an incremental basis and taking over management aspects gradually. In Mali, implementation was carried out by NGOs in order to give the MOH time to develop its technical capacity. NCP provided technical assistance to a group composed of 10 NGOs and to the MOH—rather than to individual organizations. Gradually, the MOH began taking on a coordination role and technical leadership in the development and pretesting of print materials. Other skills are slowly being mastered. The end goal is to enable the MOH to serve as a technical resource

for NGOs who cannot afford technical IEC staff of their own and usually do not have the resources to conduct their own research, training, materials development, and mass media promotion.

- Overall, health education and nutrition units in MOHs are weak, poorly funded, and not perceived of as having effective technologies. Focusing on increasing their technical competence and visibility in one skill area can begin to alter this profile and set the stage for greater professionalism.
- Capacity building takes time and certain steps of the communication planning methodology are easier to master than others. Focusing on these, with an incremental approach to capacity building, works well and provides an important opportunity to gain confidence and project a more technical profile. As staff acquire skills, focus can be put on those they find difficult. In Honduras, for example, the most experienced team that NCP worked with, technical assistance focused primarily on formative research and strategy development—aspects of the process the team found challenging.
- Local private sector enterprises can provide many key services and management activities. NCP had good experience using local accounting firms to manage project funds; working with national MOH information centers to process survey data; and contracting with private printing and media production establishments.

### **Formative Research and Strategy Design**

- Obtaining the right kind of information on which to base a communication strategy does not have to be a time consuming, costly, and complicated undertaking. Use of a short list of highly-specific questions to guide formative research can keep researchers focused on essential issues—that is, identifying realistic and concrete behavioral targets, the right target groups, and ways of reaching them. Projects which used this approach found surprisingly little “wastage” in research efforts.
- Many of the Rapid Appraisal (RAP) models now in use are good guidelines for general ethnographic data collection but are not tailored to the specific needs of a behavior change/communication project. In the several situations where NCP used RAP methods, a great deal of interesting but extraneous information was collected. Because the information was not always applicable for decision-making on strategic IEC issues, additional focused research—using a variety of research approaches—had to be conducted. The comprehensive nature of the information gathered through RAP methods also overwhelmed national teams. As a result they ignored the findings altogether.
- Use a multidisciplinary approach to diagnose nutrition problems, conduct formative research, and plan interventions. Ideally, a program planning team should include nutritionists (to assess dietary practices and ensure that the proposed solutions are nutritionally sound); social scientists (to understand the cultural and social contexts of behaviors); marketing experts (to maintain the consumer focus and develop the intervention's positioning); and communication

specialists (to ensure that messages reach the target audience).

- Given the range of food choices and feeding alternatives available in every society, mothers need specific, culturally appropriate information to enable them to make better feeding choices. Clearer understanding of the forces that influence mothers, fathers, and other family caretakers—that either enhance or compromise their ability to make and act upon appropriate infant feeding decisions—is needed. Nutrition social marketing draws on many disciplines; however, it must find ways to make better use of food industry market research tools as well as nutritional anthropology and other community-based research methods to obtain information on intra-household and intra-community food distribution, and the socio-cultural, economic, ecological, and biophysiological factors involved in different practices.
- The kinds of questions to be answered should drive the kind of research method(s) to be used. Most nutrition programs require a mix of ethnographic, market, observational, attitudinal, consumption, and epidemiological research. Program managers need to gain experience in designing "hybrid" approaches and convince decision-makers that it does not result in more lengthy or costly research.
- In countries where the IEC team is inexperienced, a concrete strategy is essential to keep all decision-making based on research findings throughout the entire communication planning process. All too often, excellent research is conducted but then put aside when it comes time to choose the content of training courses or the message on a poster. Those that participate in the field research seem to have as much difficulty as others in processing the information meaningfully and staying focused on communication objectives. A good (very short) summary that puts results into a digestible format linked to key decisions has proven helpful. Another strategy to bring the research to life has been to take photos of someone in the target group actually carrying out the desired nutrition behavior and then keeping the photos prominently displayed. Use of role plays to act out findings regarding what the target audience is currently doing has also been used with good results.
- In many of the countries where NCP worked there was a tendency in training and media design to drift back into talking about medical norms or broad didactic concepts such as "the three food groups" or "breastfed exclusively." Counseling cards with vivid depictions of the target behaviors being promoted helped keep IEC planning and management staff focused. Prominent display of the action cards kept project objectives crisply focused on specific behavior changes, and also proved valuable in briefing radio producers, print material specialists, and other creatives.

### **Media Mix**

- A great deal more attention should be focused on the mix of channels used in a given country or region. Achieving "reach and frequency" in a communication program takes careful research and planning. It is critical not only to reach large numbers of the target audience, but to reach them frequently enough to stimulate behavior change. Furthermore, each audience segment must be reached in an appropriate fashion. The three projects in West

Africa demonstrate the importance of using a mix of interpersonal, community and mass media channels. Interpersonal and community activities alone do not provide enough coverage— especially in countries where health services reach less than half the population. Making calculations of potential reach and frequency of contact for each medium is an essential part of the communication planning process. Yet few programs actually do this.

- In nutrition programs, personal contact and individual counseling has been found to be especially critical for influencing changes in caring practices and dietary behavior. Evidence from NCP suggests that some topics—such as infant feeding practices—may be more dependent on individualized counseling and interpersonal interchange than other practices, which are more straightforward to explain and less age-specific.

### Community Outreach

- MOH and other programs without an ongoing grass-roots presence must find ways to tap into existing community networks to reach caretakers and influentials. This is perhaps the greatest challenge facing many MOH nutrition education programs. Collaboration with ministries and agencies outside the health sector can greatly increase a program's ability to reach target groups in a context conducive to discussion and interaction, and its ability to reach segments of the population not covered by the health system.
- Nutrition is home-based. Family eating patterns are not dependent on an institutional delivery system for services or products. Therefore, unlike other key child survival interventions, there is no institutional interface to deliver information available *de facto*. Finding and training appropriate interpersonal outreach cadres to interact with households is an important focus of nutritional education. Creation of community delivery systems to permit face-to-face contact is a special challenge.
- Agricultural extension systems, schools, and literacy programs provided networks that worked well to get nutrition messages out. However, intersectoral activities (for example, with other non-health ministries) required a great deal of effort to move forward. Projects must allow sufficient time to establish working relationships; find practical ways to integrate nutrition into other groups' agendas; and then develop appropriate strategies, training, and support materials for community-level workers.
- Outreach and community workers require special training in counseling and communication skills, as well as regular supervision.
- Village theater can be an energizing force for community involvement and an effective way to build interest in a nutrition issue. There is evidence that such grass-roots activities can be organized on a larger scale than initially thought. Adequate supervision—probably on a monthly basis—is required to keep up motivation of volunteer actors and assure that the content of performances is on track. Program managers must devote funding and personnel for this critical function and must also monitor implementation closely. What remains unclear is whether the approach can be cost effective as a short-term start-up intervention and whether it has long-term viability.

## Health Worker-Client Interaction

- Training of front line health and other agents to provide effective counseling can improve skills in interacting with mothers and other clients, can improve motivation, and provide a heightened understanding of how to conduct behavior change activities within the framework of their jobs. Experience has shown, however, that initial training is not enough to maintain performance levels. Other key factors include clearly articulated job descriptions with realistic expectations about time available for counseling, and good supervision.
- Introducing a client-centered approach to training can change the whole orientation of a service delivery system. Various methods have proved effective in introducing service providers to the perspective of the target audience. This has, in turn, led to more culturally-appropriate information being shared, and to changes in the quality and use of services provided. A "consumer" perspective requires that workers:
  - understand the client's circumstances and why current opinions and feeding practices are prevalent;
  - seek solutions to nutritional problems in collaboration with the client, based on the resources available to the family;
  - are systematic about follow-up and community sensitization (When should the agent check back with the caretaker? Is this a problem that could be brought to the attention of a village health committee? Is this a topic for group demonstration, health talk, or other type of communication?)
- Investing in the development of well-designed and tested training modules that can serve as reference points for national and local training programs results in many benefits. In designing materials for widespread use—or for local adaptation—three strategies can help assure relevance and widespread utilization:
  - involve a wide range of potential-user organizations in identifying needs and issues to be addressed;
  - involve them in pretesting the materials in their respective programs in different countries; and
  - involve them in translating and publishing the materials.
- Holding training in local areas makes it easier to arrange practicums and thereby helps keep training reality-oriented and useful.

## Print Materials

- Choosing the right print product for any given audience and communication situation is hard to get right. More active exploration and a more rigorous selection process is called for since programs typically spend a major portion of their IEC budget on print materials. Moving beyond the "I need a poster" syndrome has not been easy in many countries. There is much to be gained in breaking assumptions about the right medium for a given target group, a given message, and a given context.

- Pretesting is a methodology that has come into widespread use over the past decade. Unfortunately, the application often leaves much to be desired since there is little attempt to go beyond superficial testing for comprehension. Many "false positives" get through. Application of new pretest methods, such as observation of the draft material in use (photocopy-versions); trial periods for draft material with pre- and post-tests to gauge shifts in knowledge and understanding, have all shown promise. New computer technologies make production of high-quality draft materials a possibility. Photocopying quality has also improved measurably in recent years. Pretest methodologies can take advantage of this. More "real-life" testing could detect such problems
- Pretesting of print (and audio) materials for health workers should rigorously test their usability in real clinic or other context in which they will be used. Pretesting must go beyond the testing of visuals, vocabulary, and messages—which is now routine in most countries. Much material in use is not sufficiently geared to the short time frame available for counseling. The considerable investment of most programs in support print materials therefore does not pay off. More "real-life simulation" testing could detect such problems.
- Simple and inexpensive print materials are as useful and more cost-effective than flip charts and more elaborate products. Counseling cards have been found particularly cost-effective. They can contain basic information about several key behaviors, are highly flexible, and permit health workers or extension agents to select *one* specific message or set of messages to respond to any of a range of different nutritional problems. This ability to respond with specificity to a client's particular situation is invaluable. Such counseling cards hold promise for programs experimenting with Integrated Case Management (ICM).
- Highly graphic take-home materials with "prescriptions" for nutritious snacks or other behaviors being promoted can empower women and give them the confidence to ask their husbands or mother in laws for certain foods.
- Investing in quality—that is, good artists producing materials carefully targeted to end-user needs—seems to pay off. Health workers have reported that they are proud to use the materials and also gain status and credibility. Mothers and other target groups enjoy the materials and are more easily drawn into discussions about the proposed behaviors.
- Specialized, technical print materials for health workers may not always achieve their desired ends. In several countries, health workers seemed to get their information more readily from popular materials designed for mothers than from technical materials purportedly designed for them.
- Distribution of print materials is a weak link even in the most sophisticated country programs. Strategies for contracting out this function to the private sector need to be explored. Involvement of NGOs in implementing programs also supports wider dissemination of materials. If materials can be distributed during training, this will extend appropriate use and distribution immeasurably.

## Radio

- Radio contributed significantly to program impact on knowledge and behavior change in both Latin America and Africa, underscoring the importance of using broadcast media as an essential cornerstone of a communication program.
- Cutting down on start-up time needed to get messages on the air can be a powerful way for programs to be more cost-effective. Program impact ultimately depends on reaching people and reaching them often, and effectively. Formats such as radio spots can be produced quickly and cheaply once target behaviors have been identified. This gives time to develop other formats—such as dramas and soap operas which provide more in-depth treatment and have higher audience appeal, but which require long lead times to produce.
- Investment in entertainment programs with a high-audience appeal is highly cost effective. In all three African countries where drama series were produced, they were rebroadcast free of charge several times because of their popularity, providing many additional hours of exposure to key program concepts. They reached large audiences
- Keeping creative talent focused on key program messages and concepts requires regular supervision during the production process. No briefing seems to be thorough enough. This is especially important in countries where creative staff are not accustomed to working with "creative briefs" or with scripts. Without competent technical oversight, entertainment media products will "miss" the key messages.
- Approaches that meld entertainment and education in just the right balance require a good deal of skill—especially dramas and soap operas. It is important, therefore, to pick a format that the production team can handle. NCP experience suggests that village-produced skits, vox pop programs, and call-in shows can be handled by a relatively inexperienced IEC team.
- Mainstreaming nutrition radio programs—i.e., getting material broadcast outside of the health education slot (which is often at an off-hour and may suffer from a weak reputation)—can significantly increase listenership.

## Monitoring

- Monitoring is a much neglected tool for understanding operational dynamics and for detecting what does and does not work in nutrition education interventions. Inexpensive methods are available that can be carried out by non-researchers. In particular, use of observation techniques (observing health worker client interactions or use of materials, for example) can provide important insights into how a program is working.
- Documentation of program inputs and implementation experience is essential to understanding program successes and failures. Methods for doing this should be institutionalized as part of management information systems—supplemented by monitoring visits. Essential to evaluation is information about training, material distribution, radio

broadcasts, and other planned interventions. On their part, IEC managers need to be trained in how to coordinate and make use of this information.

### Technical Assistance

- Short-term technical assistance (TA) at strategic design and decision-making points can provide adequate technical input for a successful project. Key periods are the formative research and analysis stage, strategy development, and management and evaluation planning.
- New technologies such as faxes and e-mail can enable US-based staff to provide some kinds of technical assistance on a timely "as-needed" basis, without leaving their homebase office.
- Working with a counterpart team (government or NGO) can be made a successful experience by paying attention to the *timing* of the TA, making sure the *technical level is appropriate* (even if it means carrying out an activity at less than a state-of-the-art level and then upgrading it later), and conducting periodic retraining so new staff and partners can be brought on board.
- Use of "Peer-TA" has proven highly effective. Under NCP, skills transfer and motivation were enhanced by sending "star" performers from one country to another to share experiences and conduct training. Both sending and receiving countries benefitted. Visiting "experts" were credible, respected, and listened to—whether the situation was one health education director talking to another or a community level trainer talking to other trainers. The opportunity to serve as a peer TA motivated national technical staff more than trips to conferences, third country or U.S. training, or co-publishing of journal articles.
- If a donor is providing TA to more than one country in a region, it helps to focus on getting one (different) project component up and running quickly in each of the countries (e.g., creation of radio dramas or primary school curricula). Peer technical assistance can then be used to transfer and adapt the experience to other countries in the region. This approach is cost effective and efficient, and also allows interventions to be improved in each new application.

### Evaluation

- Evaluation of communication interventions is a highly specialized area of expertise, requiring competence in a number of areas. These include: research design, sampling and statistical analysis, behavior change principles and approaches for measuring change, understanding of media and strategies for measuring penetration, and the effectiveness of different channels, as well as skills to train local interviewers and deal with data collection under difficult field conditions. Expertise in nutrition epidemiology is also needed to ensure that the evaluation uses appropriate measures and indicators. Only the rare individual has all the skills needed for the job. Given the high cost of evaluations and the importance of obtaining meaningful

results, evaluations should be done using a team approach, bringing together professionals with different specialities.

- Projects do not always learn as much as they can about what works and what doesn't and under what circumstances. To obtain useful results requires planning the evaluation as *part of the project design*. The evaluation design needs to be periodically reviewed and adjusted as the project is implemented.
- The classic pre-post cross sectional survey design with a control group can be problematic. In the two projects where NCP used this design, the control sites were lost due to events outside the control of the project. In Honduras, soon after the baseline was completed, the MOH responded to UNICEF's newly launched "Baby Friendly" initiative and decided to nationalize its breastfeeding campaign, so that no areas of the country were "intervention-free." In Mali, where NCP selected control sites within each of the ten PVO project areas, all the control sites were lost—due to unanticipated project closures and expansions, as well as confusion among community level workers about which areas were controls.

A more flexible evaluation design would be a "post- only" design with a control group. This can be a more reliable approach, given the uncertain political and other contexts in which USAID-funded projects often operate. A post-only design also precludes interviewees from becoming sensitized and "responsive" to the questions, as opposed to the intervention itself.

- The need for extreme specificity in questions asked in an evaluation cannot be overemphasized. Only highly specific questions will ascertain exposure to the intervention itself, especially in countries where multiple health/nutrition education interventions have been carried out in recent years. Carefully constructed questions are also essential for determining whether health workers have received a particular training, in situations where multiple trainings may have taken place.
- An important step in designing questions is careful analysis of actual messages conveyed by materials/media/training. Project implementation staff can prepare this analysis for the evaluation team. Primary messages should be distinguished from secondary messages. This will greatly facilitate analysis of exposure to the intervention itself.
- When a baseline is part of the evaluation approach used, timing is important. In order to most effectively measure the impact of the intervention, the baseline should be designed only after the project print materials/media are created and training interventions are fully planned. Questions can then be written that will measure shifts in specific knowledge and practices.
- Good documentation about the intervention activities themselves, and to differences in implementation in different regions, is essential. A monitoring plan should therefore also be *part of the project design*. Monitoring information needs to be specially designed to capture the details needed. In Honduras, for example, despite a sophisticated monitoring system, certain key information about the timing and extent of events was not sufficiently detailed to help understand certain regional differences in KAP. A retrospective collection of information about the intervention activities was therefore necessary.

## **FUTURE CHALLENGES**

Much has been accomplished in the past 16 years through the support USAID has provided to developing a methodology to improve nutritional practices. First through the INCS Project (1979-1987), then through the NCP (1987-1995), strategies have been developed and tested, and then further perfected and brought to scale through a range of field projects around the world. During the next stage of nutrition project development and implementation, increased focus might be put into the following areas.

### **Capacity Building**

One of the keys to making communication programs sustainable is for governments and private agencies to have access to a pool of expertise from which they can recruit. Short-term training courses carried out under previous communication projects are a temporary, short-term solution to problems related to technical capacity. Promising efforts initiated by HEALTHCOM and NCP to develop regional and national capacity at INCAP, CERCOM in West Africa and universities in Asia need to be intensified.

### **Streamlining and Strengthening and Methodology**

USAID has supported development of a communication methodology that is effective and is being widely used. Applications in different countries and circumstances suggest that finetuning, simplification, and new modules would enhance the "product." Some areas where research and development should be targeted include the following:

- Focus on strategies to maintain learned behaviors. Identify supporting systems and work out timing of when to provide reinforcement to avoid "decay" of behaviors (often observed in programs after the first trials of new behavior). New projects should focus on a methodology for the design, monitoring, and evaluation of maintenance interventions.
- Develop "cheap but good" research methods which countries can use without donor support. Work done in breastfeeding, infant feeding, ORT, and other "technical areas" suggests that guidelines can be developed based on commonalities now identified across regions.
- Develop do-able and affordable strategies for regular monitoring and evaluation of communication activities. Large-scale KAP surveys (needed for statistical validity about impact) are not possible in most developing countries.
- Develop effective strategies for linking multi-subject interventions. Such interventions can benefit from multi-subject research, phased and linked messages, and so forth.

### **Develop Regional Approaches**

Despite the opinion of many health professionals, a number of interventions (breastfeeding, promotion of fortified salt, etc.) lend themselves to regional approaches in some circumstances. Future USAID interventions might identify such opportunities and develop and test prototypes.

## **Test Models to Develop Multiple Behavior Change Goals**

At present there is little experience in how to plan, develop, and implement integrated communication programs within Ministries of Health and other institutions that have broad mandates with multiple behavioral targets. These institutions need help in designing management plans that sequence multiple objectives (e.g., to change practices ranging from infant feeding, to safe sex, to effective use of ORT). Future USAID assistance might provide help in this area.

## **Developed Systems for Community Participation**

Many projects have successfully engaged community participation to promote nutrition; however, there are no tested "systems" for doing this. "Going to scale" (from smaller pilot or regional interventions to those at a national level) requires developing a methodology to stimulate community participation. Approaches might include tapping into a variety of networks, building coalitions, and so forth.

## **Fund More Comprehensive Evaluations**

A good deal has been learned from the NCP evaluations. Much more could be learned from comprehensive evaluations planned and conducted by multi-disciplinary teams. (As discussed above in the Evaluation section). Investment in such research holds the promise of large pay offs in terms of insights gained. The time is right for such evaluations; a number of critical issues/questions have been identified, which, if resolved, could move the state of the forward. These issues include the following:

- The relative effectiveness of different public/private management models;
- Elements required for successful large-scale community outreach;
- Impact of incorporating nutrition into integrated case management;
- Effects of more fine-tuned audience segmentation;
- Role of in-school nutrition education in a multi-channel communication effort;
- Effectiveness of different strategies to maintain motivation of community volunteers;
- Cost effectiveness of different communication approaches.

## **Advocacy**

To assist with essential advocacy efforts on behalf of nutrition, the time is right to develop and refine a broad range of technical arguments about the consequences of malnutrition and the cost-effectiveness of available interventions. We must find effective ways to incorporate these "arguments" in communications materials, training, and other advocacy activities for different audiences, to promote the role of nutrition in economic and human development.

As part of the above, but deserving special attention, we need to closely examine past and current nutrition interventions to identify those that are most cost-effective under different conditions.