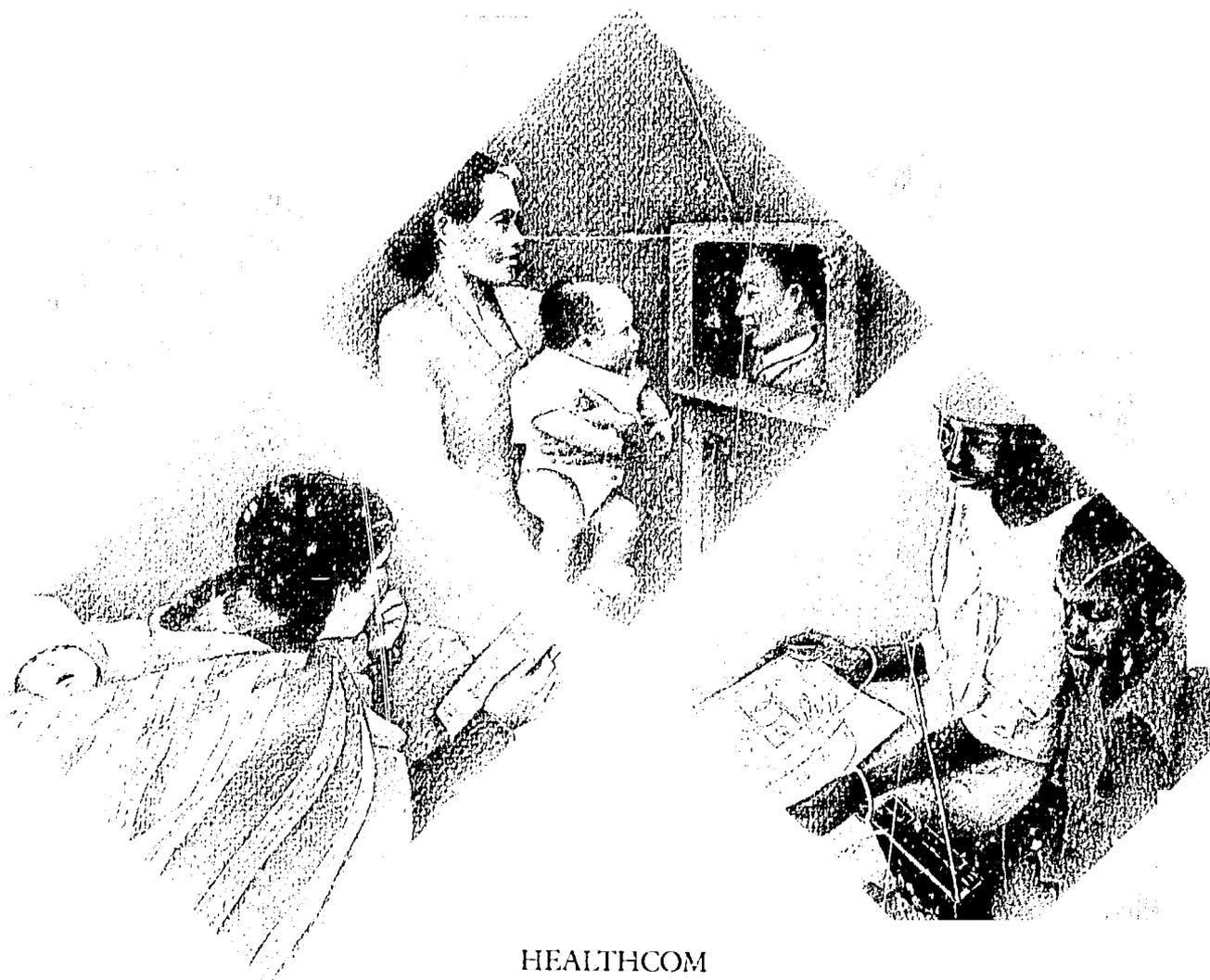


# COMMUNICATION



HEALTHCOM  
*a project of the*  
UNITED STATES  
AGENCY FOR  
INTERNATIONAL  
DEVELOPMENT



# FOR CHILD SURVIVAL

# COMMUNICATION FOR CHILD SURVIVAL

prepared by

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June 1988  
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The Annenberg School of Communications, University of Pennsylvania

Applied Communication Technology

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# CONTENTS

ACKNOWLEDGMENTS .....	viii
-----------------------	------

## PART I: OVERVIEW OF PUBLIC HEALTH COMMUNICATION

INTRODUCTION .....	2
CHAPTER 1: THE EVOLUTION OF PUBLIC HEALTH COMMUNICATION .....	5
The Past—Piecemeal Approaches .....	6
The Elements of Change .....	6
What is Public Health Communication? .....	7
CHAPTER 2: THE CONCEPTUAL FRAMEWORK—SOCIAL MARKETING, BEHAVIOR ANALYSIS, AND ANTHROPOLOGY .....	9
Social Marketing: The Organizing Principle .....	10
Behavior Analysis: Selecting Messages and Improving Instruction .....	12
Anthropology: Behavior in Context .....	15
A Winning Combination .....	16

## PART II: A METHODOLOGY FOR PUBLIC HEALTH COMMUNICATION

OVERVIEW: THE ANATOMY OF COMMUNICATION .....	18
CHAPTER 3: HEALTH PROBLEM ANALYSIS .....	21
Epidemiological Analysis .....	22
Behavior Analysis .....	23
Supplement: Behavior Profile— Honduras Diarrheal Disease Control Program .....	24
CHAPTER 4: DEVELOPMENTAL RESEARCH .....	27
The Research Agenda .....	28
Collecting Data .....	30
Setting Program Objectives .....	31
Supplement: Developmental Research Techniques .....	32

CHAPTER 5: STRATEGY DEVELOPMENT .....	39
Audience Segmentation .....	40
Product Strategy .....	41
Behavior Strategy .....	43
Distribution and Training Strategy .....	45
Messages and Creative Strategy .....	45
Media Channel Strategy .....	48
Institutional Delivery .....	48
Supplement: Using Mass Media .....	50
 CHAPTER 6: TESTING STRATEGIES AND MATERIALS .....	 53
Product Testing .....	54
Market Testing .....	55
Behavior Trials .....	55
Materials Pretesting .....	55
Management of Pretesting .....	56
 CHAPTER 7: WRITING THE OPERATIONAL PLAN .....	 57
Supplement: The Gambia Operational Plan .....	59
 CHAPTER 8: INTERVENTION .....	 61
Production .....	62
Distribution .....	62
Training .....	64
Supplement: Designing Effective Learning Strategies .....	67
 CHAPTER 9: MONITORING AND EVALUATION .....	 69
Monitoring .....	70
Midcourse Corrections .....	70
Evaluation .....	72
Difficult Choices .....	77
Supplement: Sample Plan for Program Monitoring .....	78

CHAPTER 10: MANAGEMENT AND INSTITUTIONALIZATION .....	81
Management by Cooperation .....	82
Key Skills Required .....	82
The Ministry of Health Activities .....	83
Other Management Models .....	84
Institutionalization .....	85
How to Measure Success .....	87

## LIST OF FIGURES

Figure 2-1: Social Marketing .....	12
Overview: The Anatomy of Communication .....	19
Figure 3-1: Diarrheal Disease Transmission and Control .....	22
Figure 3-2: Maternal Response Model .....	23
Figure 5-1: Behavior Evaluation Criteria .....	44
Figure 5-2: Message Phasing in the Honduras ORT Program—1981-1983 .....	46
Figure 5-3: Delivery System of the Honduras ORT Program .....	49

## ANNEX A: CASE STUDIES

ORT Communication Campaign: Egypt .....	90
Marketing Iodized Salt: Pakistan .....	91
Mass Media and Health Practices: Honduras .....	92
The Happy Baby Lottery: The Gambia .....	94
Man is Health: Tanzania .....	95
Nutrition Advertising Campaign: Tunisia .....	96

## ANNEX B: SAMPLE MATERIALS

Product Designs .....	100
Product Instructions and Records .....	103
Educational Materials .....	106
Promotional Effort .....	118
Logos, Signs, and Slogans .....	126
Motivational Materials .....	131
Interactive Media .....	134

## ANNEX C: SELECTED BIBLIOGRAPHY

Suggested Methodology References .....	140
MMHP and HEALTHCOM Project Documents .....	143

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In 1978 the Agency for International Development initiated the Mass Media and Health Practices (MMHP) Project (#931-1018) to apply state-of-the-art knowledge about communication and social marketing to selected child survival practices. The Academy for Educational Development was competitively contracted by A.I.D. to implement this project. From 1978 to 1985, MMHP, working with professionals in developing countries, devised a methodology for conducting public health education, which is referred to in this manual as public health communication. The original country programs emphasized the promotion of oral rehydration therapy (ORT). In 1985 A.I.D. expanded the project under the name Communication for Child Survival, or HEALTHCOM. The project's mandate was broadened to include up to 21 countries and a range of child survival technologies, in addition to ORT. HEALTHCOM's primary purpose today is to increase our understanding of how best to use modern communication, social marketing, and behavior analysis to improve existing child care practices, and thereby reduce infant mortality.

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PART I

OVERVIEW OF PUBLIC HEALTH  
COMMUNICATION

INTRODUCTION .....	2
CHAPTER 1: THE EVOLUTION OF PUBLIC HEALTH COMMUNICATION .....	5
CHAPTER 2: THE CONCEPTUAL FRAMEWORK .....	9

## INTRODUCTION

This manual presents a systematic public health communication methodology for child survival programs. It is meant for health and communication professionals who wish to use communication strategies to improve child health in the developing world.

The manual provides a detailed description of:

- **Public health** communication and its role in child survival programs.
- Three disciplines which have significantly influenced public health communication: **social marketing, behavior analysis, and anthropology.**
- Three stages of the methodology: **planning, intervention, and monitoring/evaluation.**
- Methods for assuring the continued application or “**institutionalization**” of a public health communication strategy.

The strategy as applied to child survival has been tested in U.S. Agency for International Development-sponsored projects in more than 10 countries. Examples used here are drawn largely from those countries in which the methodology was applied under two A.I.D. projects: the Mass Media and Health Practices Project (MMHP), and the Communication for Child Survival Project (HEALTHCOM). These projects have assisted national child survival programs, focusing on a range of health areas including oral rehydration therapy (ORT), immunizations, nutrition, breastfeeding, growth monitoring, and others.

Public health communication has made a significant contribution to improved child health when the methodology has been applied conscientiously. It has been effective largely because of its emphasis on the consumer, through preliminary research and field testing of products and practices. Although individual countries have unique cultures, special problems, and varying constraints, the general strategy as presented here has proved to be adaptable worldwide.

The goal of public health communication strategies is to bring about changes in health-related practices and, in turn, in actual health status. A few illustrations from results obtained during the recent past demonstrate the possibility of such success.

- **In Ecuador**, during 1985 and 1986, the National Child Survival Program (PREMI) conducted a series of mass mobilizations supported by extensive media efforts to immunize and weigh all children un-



*The goal of public health communication is to bring about changes in health-related practices, and in turn, in actual health status. (Ecuador)*

der five and distribute packets of oral rehydration salts (ORS). In less than a year by the end of the third phase, the program had delivered 1,200,000 vaccinations and had distributed more than a million ORS packets. Seventy-five percent of Ecuadorian mothers had an ORS packet in the home and the percentage who reported using it had increased from 38 percent to 53 percent.

- **In Honduras** mothers were taught to use a new oral rehydration solution called Litrosol. After two years of promotional radio broadcasting, 60 percent of rural women interviewed reported using the government's new ORS product; 35 percent of all cases were reported to have been treated with oral therapy. Mortality associated with diarrhea in children under five dropped from 40 percent to 24 percent in the target region during the two-year period.

- **In The Gambia**, after an intensive eight-month communication effort focusing on oral rehydration therapy, 66 percent of rural mothers in the intervention could recite the correct formula for a home-mixed formula using locally available bottles and bottle caps. After two years, 70 percent could recite the formula and 62 percent of mothers surveyed

reported treating recent cases of diarrhea with the solution.

- **In Swaziland**, a communication intervention helped reach mothers how to improve dietary management of diarrhea in the home. After eight months, the number of mothers who reported that children should be fed special foods after an episode of diarrhea increased from 16 to 44 percent.

- **In Egypt**, an aggressive social marketing campaign and face-to-face educational efforts by health personnel and pharmacists increased the reported use of ORT from 1 percent to 69 percent in less than a year. After two years, 90 percent of all physicians reported routinely prescribing ORS, and a study of death registrations in Alexandria suggested that during the diarrheal season, overall mortality in children under one year old dropped by about 30 percent between 1982 and 1984.

- **In Bangladesh**, the Oral Therapy Extension Program (OTEP) has since 1980 taught four million

mothers about ORT through intensive face-to-face instruction. An evaluation showed that 90 percent of the tested mothers were able to mix a safe and effective ORS solution several months after their original instruction.

- **In Indonesia**, the Nutrition Communication and Behavior Change Project used communication to strengthen the mother's role in child feeding. An evaluation showed that by 24 months of age, 40 percent of the project infants were better nourished than infants in the comparison group.

Public health communication cannot compensate for poor products or inadequate supplies or distribution. It cannot compensate for an inadequate understanding of behavior. It cannot solve all health care problems. What it can do, when systematically applied, is increase demand for products and services and teach correct use of those products and services, facilitate health-related behavior change, and contribute to improved health.

## THE EVOLUTION OF PUBLIC HEALTH COMMUNICATION

Public health communication has evolved from piecemeal strategies to a process relying on comprehensive research and planning focused on the consumer. Increased emphasis on primary care, new child health technologies, mass campaigns, development communication, and the principles of social marketing and behavior analysis have contributed to this development.

The goal of public health communication is to facilitate change in health-related practices and, in turn, health status. This often requires increasing the demand for specific products and services essential for improving child survival rates, and ensuring that consumers use those products appropriately.

*(Ecuador)*



## THE PAST— PIECEMEAL APPROACHES

Health education as traditionally practiced often suffered from a lack of comprehensive planning. Frequently, the education component of public health programs consisted of:

- lectures on community participation for health workers who were too overworked to teach clients or organize community groups;
- a few slick TV spots which pleased the ministers but provided little useful information to consumers;
- radio programs which advertised services that did not really exist or gave advice no one was inclined to follow;
- a poster, pretested with one neighboring mother because “she’s from a rural area.”
- a flipchart developed for group presentations that never took place because there was no money for the participants to travel—or because the flipchart got lost on its way to the health workers.

Too often we have pushed ill-conceived messages through weak communication channels at inappropriate audiences. Even more often we have employed education methods which, while effective in teaching individuals, have minimal impact upon the health status of large populations. At the root of both problems is an installment approach to health education—media promotions, training programs, and community events which may appear on the surface to be successful, yet fail to bring about sustained change in health-related practices.

The flaws in such efforts are not always easy to see because they are strategic. Program managers may have made inaccurate generalizations about the audience (their current practices, their needs, their preferences, their access to media). Planning of media activities may have been insufficient to assure messages reached an adequate number of people with necessary impact. Training of health workers may have been lacking because of resource constraints. There may have been little or no program monitoring or mid-course adjustments.

Moreover, health education has often been at the bottom of public health allocations, in terms of both human and financial resources. This is especially critical in developing countries where budgets are



*Today, health education puts a greater emphasis on actual behavior. Shown here is a training course in Indonesia for community volunteers.*

stretched thin. Lack of resources easily results in piecemeal strategies.

## MOVING TO DEVELOPMENT COMMUNICATION

Beginning in the 1970s, a number of development programs enlarged our view of how health education could and should be practiced, given the constraints commonly faced by those countries most in need of such programs.

In 1978 at Alma Ata, USSR, the World Health Organization (WHO) initiated a fundamental change in WHO programming from an emphasis on disease eradication to one stressing prevention and the needs of the rural poor. This **primary health care** strategy aimed at providing comprehensive basic services in maternal and child health, expanding activities in health education, and making increasing use of village health workers.

The practice of health education began shifting towards a greater emphasis on actual behavior as the health variable of most concern. Health educators combined traditional face-to-face instruction in formal school settings with mass media and nonformal education activities directed at adults. The field of **development communication** made several important contributions to health and population education programs, including systematic message design and testing and a renewed interest in radio.

A number of large-scale studies demonstrated effective ways to promote important health changes through communication programs. Tanzania, for ex-

ample, launched its **mass campaigns** on health and nutrition in the early 1970s. Two million people participated in 75,000 study groups organized around basic educational programs broadcast by radio. These campaigns, encouraging people to construct latrines, tend vegetable gardens, and improve their dietary and hygienic practices, demonstrated the power of integrated media activities to produce impressive short-term changes. They also demonstrated the need to follow up initial instructions with sustained reinforcement.

In 1969 Philip Kotler and his colleagues began publishing their ideas on how marketing theory could be applied to nonbusiness enterprises. The principles of **social marketing** were incorporated into a number of international health programs, particularly retail sales of contraceptives. At the same time several research studies in the United States and Europe applied the principles of behavior analysis to prevention programs for chronic diseases. The Stanford Heart Disease Prevention program, for example, demonstrated that risk factors for heart disease could be reduced significantly through a community education approach based on **behavior principles**.

More recently the child survival movement, supported by USAID, UNICEF, WHO, and many other national and international bodies, has encouraged the rapid adoption of **new health technologies** and practices (such as immunizations and oral rehydration therapy) among national populations.

All of these efforts have contributed to the evolution of a more comprehensive approach to health education. The challenge has been to develop systems which reflect how people learn and what works in the real world of minimally-trained and overworked staff, scant and unstable budgets, and varying health conditions.

Public health communication is a specialized discipline which has emerged during the past ten years. It can be broadly defined as the **systematic attempt to influence positively the health practices of large populations, using principles and methods of mass communication, instructional design, social marketing, behavior analysis, and medical anthropology**.

The primary goal of public health communication is to facilitate change in health-related practices and, in

turn, health status. This often requires increasing the demand for the products and services required to improve child survival rates and also ensuring that once products are acquired, consumers will use those products in safe and effective ways. Principles of **demand creation** and **appropriate use** are fundamental to a successful child survival activity. They place the consumer in a pivotal role. They move the health initiative beyond the laboratory, beyond clinics and hospitals, into the homes and hands of those people who need a particular product or service, who will decide to seek it out, and who will adopt and use it properly. These principles focus primarily on the client of the health care system, who ultimately must change his or her practices.

Creating demand for child survival services initially means letting people know that important new services are available, or that new practices can assist them. It requires more than simple publicity about the existence of a product, or the benefit of a practice, however. Consumers must know the relative advantages of a new product or practice over more familiar ones. They must believe the product is easily available, relatively simple to use, and that it will meet needs which they themselves perceive as important. They must accept, eventually, that the new practice represents an improvement in their lives.



*An Indonesian mother gives ORS to her daughter. Consumers must believe a new product or practice meets needs they perceive as important.*

Demand creation also involves motivating new habits among caretakers who may believe firmly in traditional remedies, or who may have become fatalistic about locally pervasive health problems. It involves mobilizing communities to take enthusiastic, collective action in support of child survival initiatives. Such collective action raises a whole new arena of opportunities and obstacles for the communication planner.

In sum, effective demand creation is based upon products and services which respond to consumers' ideas of their own needs. The foundation of this process is accurate information about what consumers want, permitting the design of appropriate products, services, and media messages. Principles of social marketing aid the communication planner in this fundamental research effort and in promoting these products, services, and new practices.

Appropriate use is often an even more complex objective. We may be inclined to assume that if a consumer purchases a product, he or she will care enough to learn how to use it and, in fact, will use it properly. Field evidence shows that sales are a relatively poor basis upon which to predict either use or proper use, particularly with such products as ORS, growth charts, and contraceptives. Unlike consumer goods such as soft drinks or cosmetics, these products require considerable changes in customary practices,

new skills, and often require specific social sanction. "Use" may involve a number of different activities which appear simple but are in fact complex and difficult until familiar.

This realization has led planners to focus on the details of product and message development, and on an analysis of behaviors to be promoted. Public health communication must address complex learning requirements through systematic instructional design and teaching strategies emphasizing discrimination between correct and incorrect performance and providing continual reinforcement. The process of learning, moreover, can never be considered completed. Maintenance of new skills over time is as important as their initial acquisition. Principles of behavior analysis can help the communication professional define, motivate, and reinforce correct use.

Finally, public health communication can and should serve the supply as well as the demand side of child survival service delivery. With the concepts and techniques it has incorporated from marketing and from behavior analysis, public health communication can also make important contributions to strengthening the distribution of health products and services and to the training, supervision, and motivation of health personnel.

## THE CONCEPTUAL FRAMEWORK: SOCIAL MARKETING, BEHAVIOR ANALYSIS, AND ANTHROPOLOGY

Public health communication incorporates the theories and methods of several disciplines. Social marketing provides a framework for selecting and segmenting audiences and for promoting products and services. Behavior analysis supplies tools for investigating current practices, defining and teaching new practices, and motivating change. Anthropology reveals perceptions and values which underlie existing practices and which can help sanction new ones.

*(The Gambia)*



## SOCIAL MARKETING: THE ORGANIZING PRINCIPLE

In his book *Marketing for Nonprofit Organizations*, Philip Kotler defines social marketing as “the design, implementation, and control of programs seeking to increase the acceptability of a social idea or practice in a target group.”<sup>1</sup> Social marketing is not essentially different from commercial marketing; it relies on the same analytical techniques (market research, product development, pricing, accessibility, advertising, and promotion). Social marketing sells products and practices by appealing to people’s self-interest. However, it encourages changes in behavior which will benefit society as well as the individual.

In international health programs, social marketing may involve both the selling of a commodity and the selling of an idea or practice. In fact, social marketing almost always begins with promotion of a health-related attitude or belief. It builds upon that to make recommendations for a new product or service, and to provide instructions for effective use. The fact that little or no money changes hands in such marketing efforts—that what is exchanged may seem intangible but heavily value-laden—can make these programs considerably more challenging than conventional marketing.

Although socially beneficial products (such as condoms, birth control pills, and oral rehydration salts) are often subsidized, the actual selling process can be critical because it raises consumer motivation, stimulates entrepreneurial activity among wholesalers and retailers, increases the potential for long-term program self-sufficiency, and is a simple measure of program success. Marketing techniques are also essential to the “selling” of new practices. The consumer must make complicated trade-offs between old and new beliefs, and between familiar and unfamiliar practices, and make investments of time and effort to achieve results which can often only be verified over the long term, and which may produce unpleasant effects over the short term.

Socially beneficial products, or “social products,” are different from commercial ones in important ways:

<sup>1</sup>Kotler, Philip, and Alan R. Andreasen. *Marketing for Nonprofit Organizations*. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975. (revised edition in 1987 published as *Strategic Marketing for Nonprofit Organizations*.)



*The benefits of growth monitoring can be profound over the long term. Over the short term they may seem elusive. (Bangladesh)*

- Social products are often more complex to use than commercial ones.
- They are often more controversial.
- Their benefits are often less immediate.
- Distribution channels for social products are harder to utilize and control.
- The market for social products is difficult to analyze.
- Audiences for social products often have very limited resources.
- The measure of successful “sales” or adoption of social products is more stringent than for commercial ones.

These extra challenges mean that the research and the planning stages of a social marketing effort must be particularly sound.

### The Consumer as the Center

Social marketing relies upon a fundamental **consumer orientation**. The consumer, or user, is not only the primary audience, but the measure of whether activities are appropriate, desirable, and successful. The consumer is systematically consulted throughout the communication process, providing the data for key marketing decisions.

Before a new product is introduced, the first step is to research thoroughly the environmental and psychological factors which will affect an audience’s atti-

tude toward the product. The audience for almost every public health communication program will be comprised of various subgroups, each having unique views, values, and needs. Research therefore begins with **audience segmentation**—a process of identifying subgroups and determining which media are most prevalent and appropriate to each. Subgroups are usually determined by 1) demographic characteristics—age, sex, income, education, literacy, social class, family size, occupation, religion, race, or culture; 2) geographic characteristics—region, size of place, population density or mobility; or 3) psychographic or behavior characteristics—lifestyles, values, or stages of product “readiness.”

Child survival efforts put great weight on considerations of parents’ or caretakers’ income and product readiness. The primary audience generally consists of lower income populations—those most in need of health products and services. This group, however, may include individuals in various stages of product awareness, ranging from ignorance of the product, to unenthusiastic acquaintance with the product, to various levels of enthusiasm. Understanding the readiness stage of different audience segments is essential to positioning a product correctly.

### The Marketing Mix

Social marketing conceives of the consumer as the center of a process involving four variables: product, price, place, and promotion. A successful program is organized around a careful analysis of each variable and a strategy which considers how they will interact.

A proposed **product** (whether a commodity, idea, or health practice) must be defined in terms of the users’ beliefs, practices, and values. “Product position” is the term social marketing uses to describe the mental and market niche created for each promoted item to distinguish it from competing products or ideas. Extensive audience research guides the development of the product (its name and packaging, its tone and rationale) and the portrayal of the benefits it offers.

**Price** can refer to a monetary expenditure, an opportunity cost, a status loss, or a consumer’s time. The fact that a rural woman pays no money for a vaccination does not mean that it costs her nothing. Indeed, the day of travel, the inconvenience to family, or the risk of a child’s reaction may seem too costly relative to perceived benefits. The price of a particular product is never fixed; it varies according to the target audience segment, and often according to the individual.

### A “Place” for Everything

Although child survival products are usually part of public health promotions and are available at public health centers, sometimes these centers are not accessible enough or popular enough with local audiences to be effective as the only “place” where products are available.

In Egypt and Indonesia, audience research determined that pharmacies were important sources of both medicine and information to large portions of the population. Program planners therefore decided to promote retail sales of ORS, while also making it available at health centers. Pharmacists received special training in diarrheal disease management so that they could provide correct information to consumers whenever they distributed the packets. In Honduras, a program is underway to involve private pharmaceutical companies in the production and distribution of ORS through *pulperias*, or small general stores in rural areas. It is anticipated that these outlets will be the most popular with the rural population, and that the volume of ORS sold will satisfy private firms.

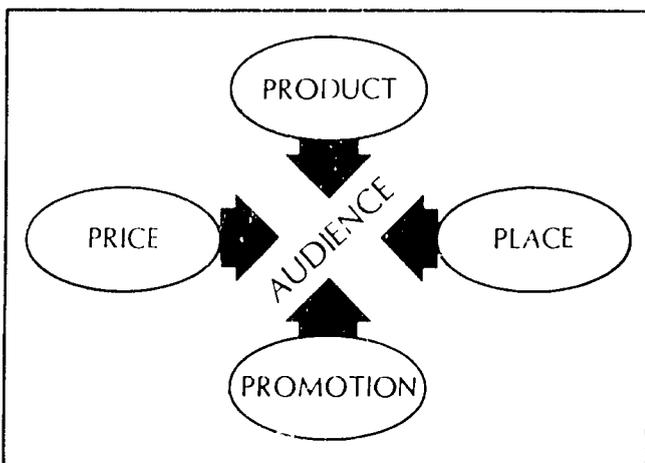
In Malawi, where malaria accounts for at least ten percent of hospital deaths, chloroquine has been available at both health centers and retail stores. But neither kind of outlet was accessible enough to most people. Program planners wondered whether they could “create” a new “place” for chloroquine distribution. Since traditional birth attendants (TBAs) are respected and active in most rural areas, planners decided to conduct a pilot study to train a group of them to distribute chloroquine and to instruct mothers in its use and in preventive measures which can be taken around the home, such as burning of cow dung and elimination of mosquito breeding sites. Results showed the TBAs would be highly effective in this role.

The concept of **place** refers to the channels through which products flow to users and the points at which they are offered. Product availability and distribution may involve not only retail and wholesale supply systems, but the efforts of health providers, volunteer workers, friends and neighbors. “Place” may be a store, a health center, or even a person—such as a traditional birth attendant who carries a sup-

ply of ORS. Child survival products and services are frequently not as readily available to users as competing and less appropriate products, because of weak public sector supply systems. An important planning task in a public health communication program is the choice of appropriate and powerful channels for bringing products to intended audiences. Every "place" has its "price" and the challenge is to reduce that price as much as possible.

In any social marketing activity, **promotion** requires more than simple advertising. It requires extensive consumer education to assure appropriate use of products. While public health communicators use marketing tools to increase the impact of promotional efforts, they must also draw from principles of instructional design to teach complicated consumer skills. Motivational strategies are also essential in encouraging adoption of new ideas and social products. Particularly in closely-knit rural areas, community activities can be effective promotional devices.

**FIGURE 2-1: SOCIAL MARKETING**



**Behavior analysis** also provides public health communication programs with a rigorous focus on the consumer. It acts as a sort of microscope to reveal what people are actually doing with regard to a particular health problem, and why. Behavior analysis is the study of environmental events, or determinants, that maintain or change behavior patterns. It offers systematic methods for observing and defining beha-

**A Successful Promotion—and a Proper Reward**

The national PREMI child survival campaigns in Ecuador combined vaccinations, distribution of ORS packets, and growth monitoring for children up to two years old. Each of the four campaigns required extensive nationwide promotions.

The highlight of the promotion was a vaccination diploma. Each mother whose child completed the three-vaccination cycle during the campaign received a diploma signed by the Ministry of Health. Calendars, posters, and TV and radio spots promoted the diploma, along with the message, "each child needs three visits for completing protection." Approximately 153,000 mothers received a diploma on the mobilization day. Some women came to the vaccination posts even though their children were already vaccinated, so that they could receive the diplomas they had earned.

Later, the diploma was refined to help motivate mothers to bring in their youngest children for vaccinations. Each mother received a gold star on the diploma if her child was fully vaccinated by the age of one.

vivors, for identifying behaviors which are conducive to change, and for bringing about and maintaining behavior change. Its principles have been successfully applied to a wide range of health issues including prevention of heart disease, use of seat belts, dietary management, smoking cessation, and, recently, diarrheal disease control.

Within the context of child survival, an individual caretaker—usually the mother—is faced with difficult choices between existing practices and new behavior. Recommended practices may require her to take a well child to a health center to be stuck with a needle and possibly become fitful all night; to remember the correct preparation of home oral rehydration solution; to remember when to introduce weaning foods and to determine which ones are best. She may have to determine whether her child is malnourished or just small. She may also discuss having fewer children with her husband who wants another male child. Each decision or response to a given situation is determined by a complex set of behavioral influences. Whether a new pattern of practice is easy or difficult

to adopt, it may not be easy to accept. Behavior analysis can help probe for the reasons that a given practice persists and determine how alternate behavior might be best introduced—how the behavior can be presented and encouraged, to ensure it is adopted and maintained over time.

### Analyzing Behavior Complexity

Not all health practices which sound promising in theory are practical in real life. In the first place, behavior is often more complex than it initially appears. What may at first seem to be a simple practice (such as mixing a package of ORS in a liter of water) often turns out to be a complex cluster of behaviors made up of many separate steps—some of which require new skills or engender costs to the individual. One of the most significant contributions of behavior analysis has been to focus our attention on the complexity and sequential nature of the behavior required of a target audience. It has also provided us with tools to break down practices into their component and observable parts, so that they can be more readily addressed in an instructional program. (See also Chapter 3.)

A change in behavior may require the target audience either to modify an existing pattern or to learn a new one. In either case, program designers need to



*The negative consequences of engaging in a practice are often more immediate than the positive ones. (Honduras)*

understand the full context in which a new practice or set of practices will occur:

- What are the environmental events which precede or stimulate the behavior—its *antecedents*? Are there any natural antecedents (such as a child's thirst when dehydrated) which could stimulate a new behavior (such as giving ORT)?
- What are the characteristics of the behavior itself? How simple or complex is it; how frequently must it be performed?
- What is the nature of the events which follow a behavior—its *consequences*? Are they readily apparent, rewarding or punishing, immediate or delayed? How will they affect the repetition of the behavior?

By breaking down health practices into these component parts, planners can gain a clearer idea of where along the chain of events to focus program messages most effectively.

### Selecting Target Behaviors

In general, the behavioral approach is to try to identify existing practices that are compatible with the new ones, to look for approximations to the new practices already existing in current behavior, and to evaluate the actual costs and benefits—both social and economic—of adopting new practices. Behavior analysis helps identify positive consequences which follow adoption of a new behavior and suggests ways to avoid or eliminate negative outcomes. It emphasizes that, while there are many means of shaping a new behavior pattern, positive consequences, or at least the avoidance of negative ones, are essential to its maintenance.

There are many reasons that it may be difficult to introduce a health practice to a given audience. Behavior analysis identifies six circumstances that may account for the absence of desirable behavior:

- Necessary skills or knowledge may be lacking.
- Information about when to practice the behavior may be lacking or incorrect.
- Necessary materials may be unavailable.
- Apparent positive consequences for engaging in the behavior may be lacking.
- There may be positive consequences for engaging in incompatible behavior. (For example, withholding of food during diarrhea may actually reduce

### What a Behavior Looks Like Under the Microscope

A brief example from the Honduras ORT program operational plan shows the degree of detail behavior analysis required in breaking down an apparently simple process into its discrete steps. Below is a list of steps involved in correct mixing of the local ORS packet.

#### Mixing Ability

- Identify a vessel one liter in size.
- Insure that the vessel is washed and free from foreign matter.
- Fill one liter container with the cleanest water possible.
- Open salt packet without spilling salts.
- Add the contents of one package, with minimal spillage, to the water.
- Add nothing else to the solution.
- Stir or shake.
- Do not boil the mixture.

Other elements in the Honduras behavior analysis included maternal diagnosis of diarrhea and dehydration, recognition and acceptance of ORS, knowledge of where to procure it, ORS administration, referral, and post-episode treatment—a total of over 100 separate steps.



the symptoms, whereas oral rehydration therapy may temporarily increase them.)

- There may be punishing consequences which discourage the desired behavior pattern. (A child may develop a fever after receiving an immunization.)

While the ease with which individuals might adopt a new practice is important in selecting target behaviors, it is also important to determine whether the frequency and persistence with which a new behavior must be practiced are realistic within a rural context. Some changes in behavior, clearly, would have greater effect than others. The potential health impact must be weighed against the likelihood of adoption.

Chapter 6 provides an example of how these criteria have been used to develop a practical “behavior evaluation checklist” to assist program planners in selecting priority target behaviors.

### Defining Effective Learning Strategies

The process of learning is not simply that of acquiring knowledge, but of mastering new skills and entire patterns of action. Behavior analysis stresses the importance of testing new behavior in real-life situations—much as marketers test new products—to identify problems that individuals may encounter in adopting them. It also emphasizes the need for careful instructional design in accurately teaching and reinforcing new practices. Critical behavior principles used in designing instructional programs include **modeling** of new behaviors; repeated **practice**; **discrimination** between correct and incorrect performance; and use of **positive reinforcement**. Chapter 8 describes in detail how the use of these principles in training programs can significantly increase their success.

### Aiding Effective Management

Health communication planners can use some of the same principles of analysis which help them understand the environment in which caretakers adopt new practices, to help them reflect on and influence the environment in which the public health communication professionals work. The program’s success will depend partly upon its measurable achievements in affecting a target group’s behavior, and in bringing about improvement in morbidity and mortality rates. These are the **immediate and positive outcomes** of the program. There will be other consequences of the communication efforts, however, including various

social, political, and financial costs. Managers should be aware of these different consequences, and utilize various behavioral principles—such as modeling of new behaviors, repeated practice, and positive reinforcement—at all professional levels. Just as **long-term maintenance** of new behaviors is the primary goal of communication activities, **institutionalization of the communication strategy** is the long-term management goal. (For further discussion, see Chapter 10.)

### THE RELEVANCE OF ANTHROPOLOGY

**Anthropology is the study of human beings, their cultures, and their relationships in society.** If behavior analysis provides a kind of microscope for human actions, anthropology can explain the cultural context in which these actions thrive.

Every successful public health program must consider the cultural context in which it operates—the prevailing perceptions, beliefs, and values, as well as practices. Through the observational techniques, key-informant interviews, and other approaches of ethnographic research, health communicators can look clearly at the traditions of their audiences and develop programs compatible with them.

We know that anthropology can help us understand cultures different from our own. We often fail to recognize the importance of being sensitive to beliefs and value systems when dealing with close neighbors, however. Anthropology, like social marketing and behavior analysis, reminds us that each audience is made up of subgroups having different characteristics—all of which determine how a promotional effort will be received.

All societies are in constant transition. In developing countries, the shifts are often more pronounced, and the contrasts more poignant. Societies may hold firmly to some aspects of the past while at the same time rushing to adopt new technologies and new behavior. Cultural differences, even within a small country, result in different beliefs and practices regarding a particular health issue. Moreover, individuals change at different rates. Studies of early adopters often mislead planners into believing that change is easy, while analysis of late adopters can lead to skepticism about the possibility of change.

Techniques of ethnographic research, including observations, interviews, and methods of evaluation, can provide valuable information about a culture's

perceptions, beliefs, and practices—and the meaning it attaches to them. **Ethnography** is the recording, reporting, and evaluation of culturally significant beliefs and behavior in particular social settings. Such research generally requires long periods of study and active participation in the day-to-day life of a group, community, or organization under investigation. Ethnographers work in the spoken language(s) of those they study and generally tend to place a greater emphasis on intensive observation and verbal interactions with knowledgeable members of the community (“informants”) than on documentaries or surveys.

Ethnographic data can provide a wealth of marketing information, but credible ethnographic research requires flexibility, patience, a certain amount of trial and error, and long, hard effort. Some programs may not be able to afford intensive, long-term ethnographic research. However, program planners

#### The Strength—and Importance—of Local Beliefs

Mothers in Honduras worry about *empacho*, a kind of diarrhea accompanied by cramps and a hardening of the stomach. They consider it quite distinct from other forms of diarrhea. The medical profession has no equivalent for the term, and considers *empacho* a fallacious local belief. Although communication specialists thought it would be a good idea to incorporate *empacho* in messages about Litrosol, the new ORS product, the Ministry of Health was reluctant to be associated with nonmedical terms.

At the end of the first phase of promotional broadcasts, monitoring showed that women in fact were not using Litrosol for cases they diagnosed as *empacho*—a good third of all cases of diarrhea. When asked why, mothers responded simply, “because you never said it was good for *empacho*.” Although the women consider *empacho* diarrhea, the term has such great importance that cases would not be treated unless Litrosol was identified as a remedy for that. The Ministry of Health and communication specialists worked out a compromise. They developed a series of spots which said “Litrosol is good for all diarrheas”—a simple addition which clarified the message and led to increased numbers of mothers using Litrosol, even for cases of *empacho*.

can benefit from tapping the professional expertise of anthropologists in conducting interviews with consumers and in designing research instruments. Moreover, the cultural and linguistic sensitivity that an anthropologist brings to the design of a survey or an intervention is itself valuable.

In addition, ethnographic literature is quite extensive for many parts of the world. These secondary data, gathered by anthropologists living in the program areas, can provide essential information on:

- the economic structures of households and families,
- male-female relationships,
- traditional beliefs about health and illness,
- specific health practices.

It is important to keep in mind that both ethnography and qualitative marketing research may be sub-

ject to a fundamental criticism: they depend heavily upon the individual expertise and experience of the persons doing the observing, interviewing, and analyzing.

Social marketing provides the framework upon which to build a solid health communication program. Behavior analysis focuses on actual health-related practices and helps identify areas of greatest opportunity for change. Anthropological investigation uncovers meaning in the observed practices and suggests mechanisms for linking new ideas to traditional values. Each discipline provides a significant contribution to program design. Used together they promise new levels of success in public health programming.

### A Healthy Mix of “Traditional” and “Modern”

A medical anthropologist conducted ethnographic research in Swaziland preliminary to a communication program in diarrheal disease control. He discovered that, although many Swazis may not understand biomedical germ theory, they have a number of traditional concepts regarding unseen agents causing disease. Some diseases are thought to be “in the air” (*tifo temoya*) and highly contagious; people are infected by “breathing” unseen agents into their bodies. Swazis believe in other environmental dangers as well: poisons and spells may make certain places unsafe, and some diseases may be contracted by simply walking past a location where traditional medicines have been mixed if the area has not subsequently been purified.

The anthropologist noted that in answering surveys, Swazis often refer to a modern “medical” explanation for a disease, yet go to a traditional healer in order to get a remedy for what is really viewed as a “native” illness. He

recommended that health education messages be designed to accommodate local beliefs without compromising public health objectives. For example, traditional diarrhea treatments are given to “return or maintain balance to the body,” reflecting the belief that a state of equilibrium is necessary for a person to be healthy. The public health communication strategy therefore promoted the water-sugar-salt ORS solution as “a way of restoring the balance of liquids to a child with diarrhea.”

After conducting a census of traditional healers in four rural areas, the anthropologist also recommended that a series of seminars for traditional healers be established in order to upgrade their skills and provide a forum for exchange of information. Program planners eventually enlisted the healers’ participation in their diarrheal disease program. The healers agreed to abandon a harmful traditional practice—giving purges to children with diarrhea—and became active promoters of ORT.

PART II

A METHODOLOGY FOR  
PUBLIC HEALTH COMMUNICATION

OVERVIEW: THE ANATOMY OF COMMUNICATION	19
CHAPTER 3: HEALTH PROBLEM ANALYSIS	24
CHAPTER 4: DEVELOPMENTAL RESEARCH	27
CHAPTER 5: STRATEGY DEVELOPMENT	39
CHAPTER 6: TESTING STRATEGIES AND MATERIALS	53
CHAPTER 7: WRITING THE OPERATIONAL PLAN	57
CHAPTER 8: INTERVENTION	61
CHAPTER 9: MONITORING AND EVALUATION	69
CHAPTER 10: MANAGEMENT AND INSTITUTIONALIZATION	81

## OVERVIEW—THE ANATOMY OF COMMUNICATION

Public health communication provides a strategy for planning and conducting long-term programs to produce specific, sustained behavior change in large target populations.

Broadly viewed, the strategy consists of three stages:

- PLANNING
- INTERVENTION
- MONITORING

Each of these stages involves a number of steps, described in detail in the chapters which follow. The strategy is not a linear one, however, but a cyclical one. Like the process of human learning itself, public health communication is an iterative process in which the results of experience feed back into and shape subsequent action: planning leads to interventions; monitoring of those interventions leads to subsequent changes in planning. Research into consumer needs

and responses shapes every stage of the communication effort, often requiring midcourse adjustments and re-thinking.

The basic individual steps of the public health communication methodology as described in this manual are:

- PLANNING
  - Health problem analysis
  - Developmental research
  - Strategy development
  - Testing materials and strategies
  - Writing an operational plan
- INTERVENTION
  - Production
  - Training
  - Distribution
- MONITORING AND EVALUATION

The cyclical nature of this process is illustrated in the Overview Figure on the following page.



*Consumers' needs, practices, preferences, and motivation are at the heart of the communication methodology. (Honduras)*

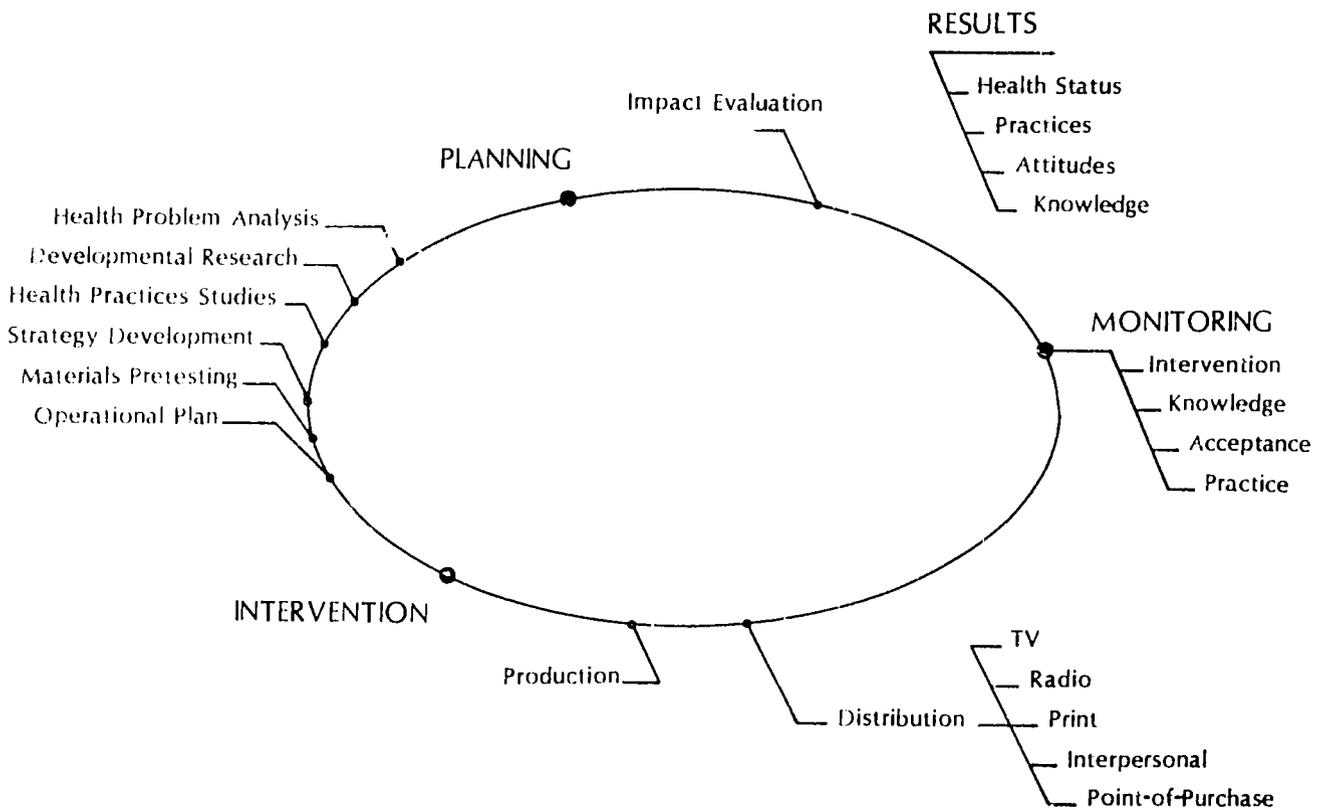
A child survival communication program is by nature a cooperative venture. The program's success will depend upon the involvement, interest, and support of ministries, health professionals, auxiliaries, private firms, the media, international donors, public officials, popular opinion leaders, and volunteers. The manual, in addition to explaining the various stages and steps of the methodology, also discusses elements of effective **program management**, based upon this cooperative approach.

Lastly, successful promotional efforts are only part of the public health communication challenge.

The other major question is, "Will the program survive?" **Institutionalizing a public health communication methodology** means leaving more than posters and radio spots, and promising more than two years of reduced infant mortality after a formal project has concluded.

The manual suggests ways programs can increase their chances of influencing the larger health bureaucracy and of assuring that the communication process becomes an integral part of the overall health delivery system.

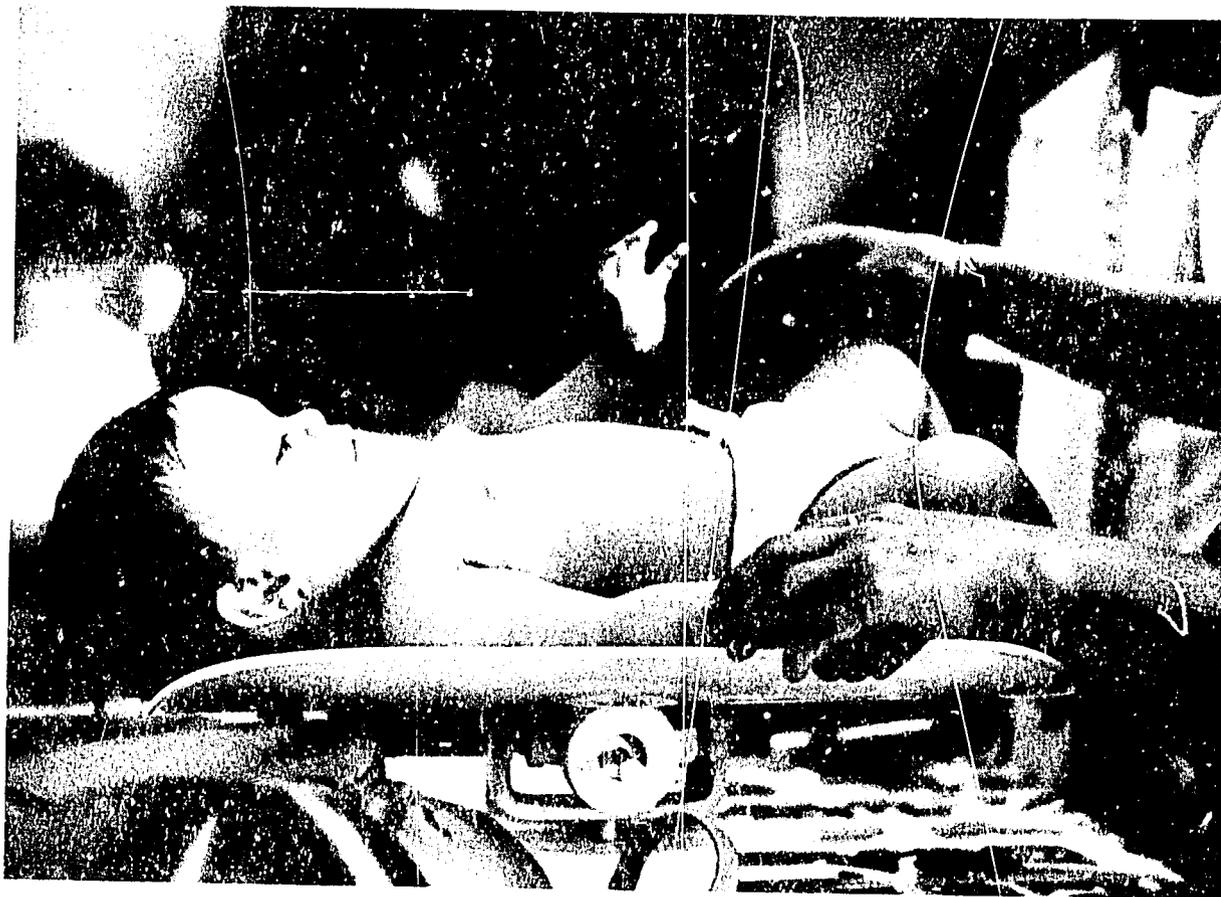
### OVERVIEW FIGURE: THE ANATOMY OF COMMUNICATION



## HEALTH PROBLEM ANALYSIS

The first stage of a health communication program is careful analysis of the health problem to be addressed. Planners assemble existing data and formulate epidemiological and behavioral models of the problem. They develop a detailed profile of new practices to be promoted.

*(Honduras)*



very primary health care objective (diarrheal disease control, immunizations, growth monitoring, and so forth) has a special set of clinical and epidemiological characteristics which define the limits and opportunities of a communication program. Research must precede any effective public health communication program. Some data are collected in surveillance studies and large random sample surveys; such research goes beyond the scope of this guide. However, public health communication planners must begin their own work with an examination of this basic research, so that they have a thorough understanding of each proposed technology—its limitations, its flexibility, its potential dangers, and its interaction with other health-related practices and beliefs of the intended audience.

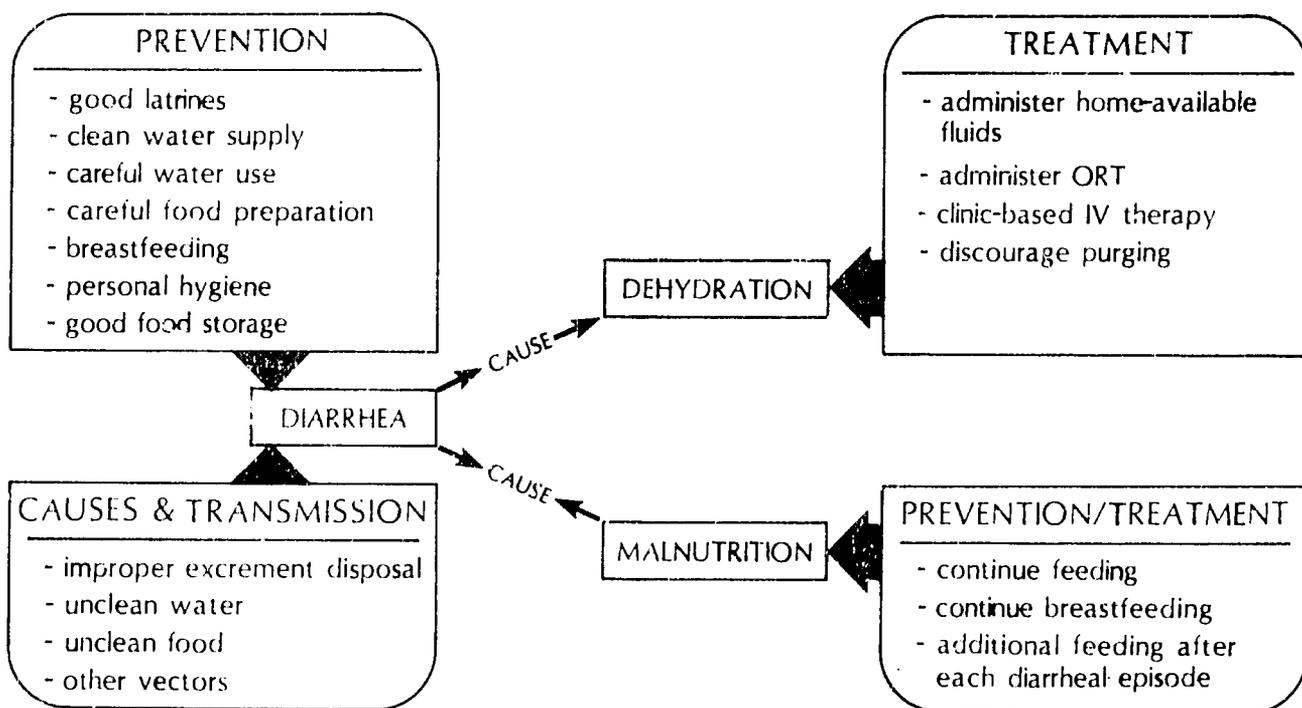
Planning begins with an epidemiological analysis of the targeted health problem. Information on the etiology and prevalence of the problem should be assembled and analyzed. Relevant questions to be answered include:

- What is the prevalence of the health problem in the community (mortality and morbidity rates)?
- Does prevalence differ between males and females? Among different socioeconomic groups? According to age?
- Does prevalence vary according to the seasons?
- Does prevalence vary according to different geographic areas?
- What segment of the population has had the highest report rates for the problem in the last year?
- What are the principal causes and risk factors associated with the health problem?

Planners should formulate a model of disease transmission, prevention, and treatment. Figure 3-1 illustrates such a model for diarrheal disease control.

In addition, communication planners should have a clear understanding of the **national policies** and program objectives pertaining to the target health issue. These will have major implications in the development of program strategies. For example, in a diarrheal disease program, planners must know what the national treatment norms are; whether ORS packets

FIGURE 3-1: DIARRHEAL DISEASE TRANSMISSION AND CONTROL



are to be promoted for home use or only in clinics; whether the private retail system is to be actively involved. A long-term public health communication program may have to respond periodically to adjustments in that policy, as well as to new information about the health problem itself. On the other hand, a communication program is often the catalyst for more explicit definition of national child survival policies. Since communication planners rely upon coherent and clearly stated health objectives, they sometimes have the opportunity to assist actively in the formulation of such policies.

Planning must also be based on a thorough analysis of the behavioral dimensions of the health problem.

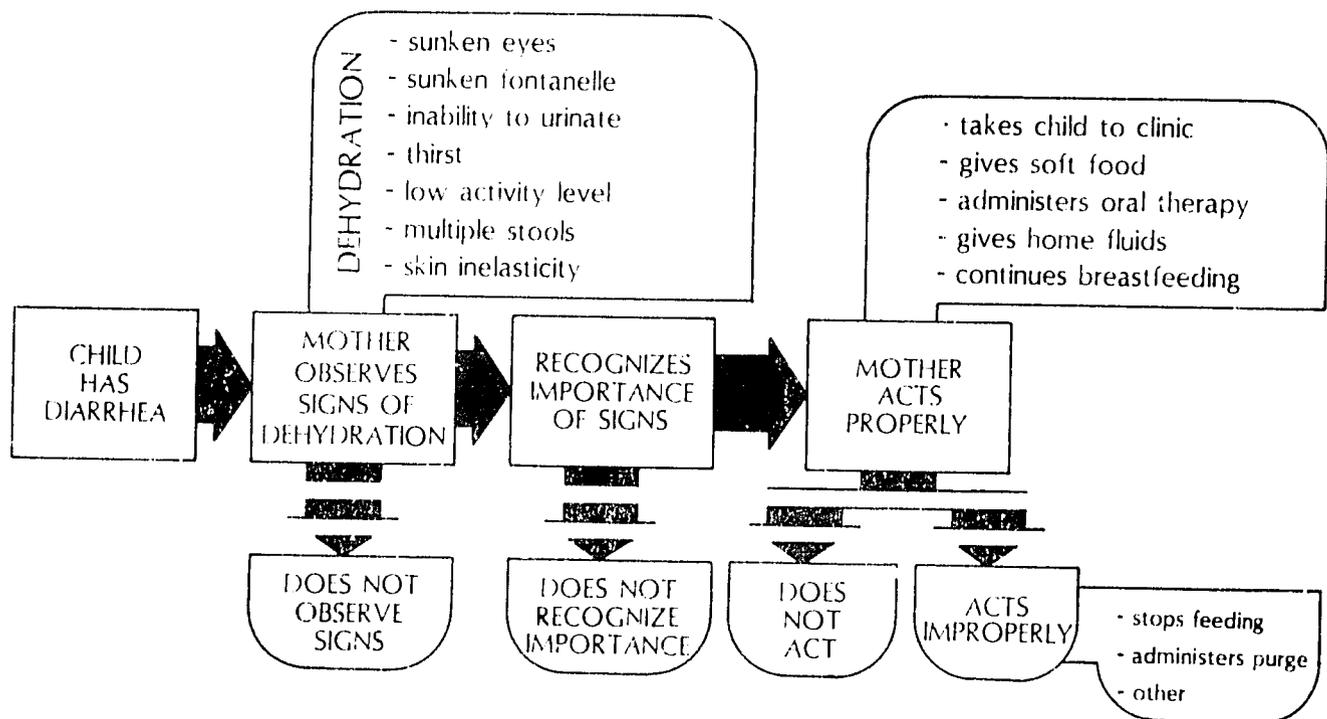
Communication planning for a diarrheal disease control program, for example, should begin with a model analyzing a mother's typical response to infant diarrhea. Figure 3-2 describes a possible response pattern of a rural mother to a given episode of diarrhea. How might such a mother define diarrhea, what signs might she observe, and what importance might she give to each one? Once she considers the episode im-

portant, what would she do to treat a given sign, and how effective, medically, might that treatment be? What are the costs and benefits to the mother of this behavior?

Next, planners must construct a detailed profile of the recommended behavior pattern, listing all of the discrete practices in the sequence in which they should ideally occur and the consequences of each behavior. Behavior analysis provides the tools to build this list with the necessary specificity. Those involved in advising the program at this stage might include a working group of medical clinicians, health educators, behavioral scientists, and community health workers—those familiar both with recommended national treatment norms and with existing community practices. The supplemental section at the end of this chapter provides an example of a profile for the treatment and prevention of infant diarrhea, developed for the Diarrheal Disease Control Program in Honduras.

The behavior profile provides a broad range of potential objectives for the communication program. Once these are established, however, planners must choose which practices the communication program can realistically address. The field research activities outlined in the following chapter guide this process of choice.

FIGURE 3-2: MATERNAL RESPONSE MODEL



The profile which follows shows the range of behaviors which were identified as part of the processes of preventing and treating infant diarrhea in Honduras. After this list was developed, communication planners weighed the importance of the different behaviors and selected those to be specifically targeted. National treatment norms and existing community practices will influence the “behavior profile” of a given health practice for a given target audience.

## TREATMENT BEHAVIORS CONSIDERED

### Diagnosis

1. Recognize that the child's stool is abnormal.
2. Confirm that the following pre-acute symptoms are present:
  - watery stool
  - listlessness
  - loss of appetite
  - more than three stools in a day
3. Confirm that the following acute symptoms are present:
  - sunken eyes
  - dry skin/mouth
  - diarrhea and vomiting
4. Confirm the following decision patterns:
  - if 2 is no and 3 is no, take no action;
  - if 2 is yes and 3 is no, use home-based ORT;
  - if 2 is yes and 3 is yes, go to hospital/clinic.

### Acceptance

5. Identify ORT packet as medicine for dehydration—not diarrhea.
6. Identify packet as capable of restoring appetite and activity.
7. Identify packet as incapable of reducing the number of watery stools.
8. Identify packet as capable of replacing essential fluids.
9. Identify rehydration medicine as better than purge, starvation, and folk remedies.
10. Identify the cost of the ORT packet in local currency.
11. State why expenditure and effort are worth it.

### Procurement

12. Name packet.
13. Identify packet visually.
14. Identify location(s) where packet can be obtained.
15. State that two packets should be purchased each time.
16. State how they will obtain packet.

### Mixing

17. Identify a one-liter vessel.
18. State that the vessel must be washed and free from foreign matter.
19. Fill one liter container to the top with cleanest available water.
20. Open the packet without spilling.
21. Add the contents of one packet with minimal spillage.
22. Add nothing else to solution.
23. Stir or shake.
24. Identify dissolved solution.
25. State that mixture should NOT be boiled.

### Administration

26. Use a small spoon to give the entire liter in small amounts.
27. Administer small amounts continuously through waking hours.
28. Continue to breastfeed while rehydrating.
29. If child vomits allow him/her to rest for a few minutes and start to give small amounts again slowly.
30. Feed child weaning food (*agua de arroz, plodas, atoles*) as soon as his/her appetite returns.
31. Never withhold food.
32. If diarrhea continues after first day, mix and give new solution for one more day, or until after diarrhea stops.

### Seeking Medical Help

33. If diarrhea continues for more than two days, seek medical help.
34. If vomiting occurs five or more times a day, seek medical help.
35. Give child ORT solution during trip to clinic if possible.

### Recovery Nutrition

36. Feed soft-boiled eggs every day for 10 days after appetite returns.
37. After appetite returns, offer more food than usual.
38. Offer supplementary food for as many days as child had diarrhea.

### PREVENTION BEHAVIORS CONSIDERED

#### Enabling Knowledge

1. Diarrhea is dangerous; it dries out the child and can kill.
2. Child/infant is different from adult and must receive special treatment.
3. Food can contain germs which are dangerous.
4. Water can contain germs which are dangerous.
5. Fecal matter contains germs which are dangerous.
6. Older food is more likely to contain germs.
7. Leaving food uncovered makes it easier for germs to get in.
8. Heat kills germs (*animalitos, bichos, lombrices...*)

#### Breast, Bottle, and Weaning Foods

9. Do not use ORS in infant formula.
10. Prepare infant formula correctly (series of behaviors).
11. Bottle feeding is dangerous unless all of the water used is boiled.
13. Bottle feeding is dangerous unless bottle and nipple are boiled before each use.
14. Breastfeed the infant as much as possible.
15. Breast milk is BEST and makes child stronger.
16. Breast milk is SAFER and reduces chance of illness.
17. A good mother will nurse her child at least four times a day.
18. A good mother will nurse her infant at least six times a day.
19. Infants should get only breast milk until they are six months old, then breast milk plus other foods until they are 18 months old.
20. Colostrum is like a vaccination for the infant (for *primera vacuna*).
21. Mothers need to eat well when they are breastfeeding.



*What appears to be a simple practice may in fact consist of a series of steps which present varying challenges to a given consumer. (Honduras)*

22. Increased amounts of food, particularly eggs, are good for breastfeeding mothers.
23. Do not feed *cujada* (soft cheese) to children if it has been stored for more than one day.
24. Do not feed beans to infants because they are hard to digest.

#### Food Preparation

25. Reheat tortillas before feeding them to infant/child.
26. Reheat frijoles before feeding them to infant/child.
27. Reheat soup and give to infant/child warm.
28. Reheat rice and give to child warm.
29. Heat cow's milk before giving it to infant/child if it has stood for more than 4 hours.
30. Wash fruit before giving it to infant/child.
31. Peel fruit before giving it to infant/child.

#### Food Storage

32. Keep boiled water in a covered jar.
33. Discard any tea which is left after child finishes.
34. Keep tortillas covered with a cloth when not eating.
35. Keep cooked frijoles covered when stored.
36. Keep soup covered when not eating.
37. Keep cooked rice covered when not eating.
38. Store cow's milk in a jar with a cover.
39. Store *cujada* (cheese) in a tightly covered container.

- 40. Keep drinking water covered.
- 41. Do not store infant food; make it fresh.

#### Personal Hygiene (mother)

- 42. Mother should wash her hands with soap before preparing food for infant/child.
- 43. Mother should wash her hands with clean water before preparing food for infant/child.
- 44. Mother should wash her hands before feeding infant/child.
- 45. Mother should wash her hands before serving food.
- 46. Mother should cut her fingernails once each week.
- 47. Mother should take the above precautions with older siblings if they feed the infant/child.
- 48. Mother should wash her breasts before feeding.
- 49. Increase volume of water used to wash hands.
- 50. Increase the frequency with which mother washes hands.
- 51. Always use soap to wash hands; it removes germs.
- 52. Wash hands after defecating.
- 53. Wash hands before doing anything with food.
- 54. Keep a separate bowl of chlorinated water to wash hands in.
- 55. Wash infant/child's hands before feeding.

#### Household Hygiene

- 56. Wash (with chlorine) container in which water is kept.
- 57. Wash (with soap) container in which water is kept.
- 58. Wash spoon used to cook beans with soap.
- 59. Wash pot used to cook beans with soap.
- 60. Keep infant's spoon separate from family utensils.
- 61. Store diapers in a covered spot out of children's reach.
- 62. Store diapers as soon as they are removed.
- 63. Build a corral for child as soon as he/she begins crawling and leave child there when not with mother.
- 64. Put a gate in the kitchen doorway to keep animals out.
- 65. Wash bedpan each morning with chlorinated or soapy water.
- 66. Mothers should have a special towel to use.
- 67. Bury excrement away from house and water.
- 68. Do not defecate near water source.
- 69. Encourage children to tell mothers when they have defecated.
- 70. Encourage children to wash hands after defecating.

## DEVELOPMENTAL RESEARCH

Developmental research ensures that public health communication programs are based on an understanding of target audiences. Research methods include sample surveys, intercept surveys, focus group discussions, in-depth interviews, ethnographic studies, and behavior observations. The results of developmental research aid program planners in establishing measurable objectives and realistic strategies for the communication program.

*(Honduras)*



# 4

Following the review of basic health-related data, the focus of investigation shifts to obtaining detailed information about the audience, health providers, the service delivery system, and potential communication channels.

Extensive preliminary research is vital for two reasons:

- The effectiveness of the public health communication program is founded on its **orientation to the consumer**. Successful interventions—educational messages and promotions of new products and services—are built on knowledge about consumers and their environment.
- The goal of the public health communication program is **change in health practices and in health status**. In order to determine whether the program accomplishes these goals, it must have baseline data for comparison.

Program managers are often anxious to move ahead quickly in launching actual communication interventions. However, experience suggests that careful research is directly related to effective message development. Three to six months should be anticipated for conducting developmental research and strategy design.

## THE RESEARCH AGENDA

Developmental research (also known as formative research, since the results are used to “form” programs) should gather the following kinds of information:

### Facts about the caretaker, or consumer:

What are current levels of knowledge, attitudes, and practices (KAP) of audience groups regarding the health problem?

What concepts and vocabulary do they use in discussing it?

What are their beliefs about the causes of the problem?

What are their current treatment practices?

Whom do they go to for advice about health problems?

What are the costs and benefits of engaging in the proposed health practice?

What factors might motivate mothers to adopt the new health practice?

### Facts about the provider:

What are current levels of knowledge among health personnel and other providers regarding treatment norms and procedures?

What are their actual practices?

What are current health education methods?

What are the current health education resources?

What factors might motivate health personnel to adopt new treatment or teaching practices?

### Facts about the service delivery system:

What are the number and types of facilities available to provide preventive and treatment measures?

How many and what kinds of personnel are available?

How many and what kinds of training institutions address the health problem?

### Information about media:

What is the national mass media structure?

What is the effective signal coverage of radio and TV stations?

What are typical costs for production and airtime, and how is broadcasting controlled?

What percent of the population owns radios and TVs?

What are the patterns of radio/TV use?

What are individual and household literacy rates?

Can the audience interpret two-dimensional pictures easily?

What are the language patterns?

What other means of communication are prevalent and powerful?

### Information about ministry and program policies:

What are the plans and priorities of relevant ministries?

What are the individual program policies and objectives?

What are national treatment norms?

### Information about background influences and constraints:

What might the public suspect is the hidden motive of the communicators?

How can resistance to the product or message be anticipated and prevented?

## STRATEGY IN ACTION

## Useful Pieces of Information

Developmental research has produced many significant findings for child survival programs across the world. The following discoveries are just a few of those useful pieces of information which have affected the direction of communication activities in African countries.

- Communication specialists thought they could depend upon radio as a major channel in Malawi, a small landlocked country in southeastern Africa. Research showed, however, that only 14 percent of the population reported owning radios and many of these radios were not in working order at the time of the interview.

Furthermore, the group which did have access to radios was not the same as the health communication program's primary target group. The program turned primarily to face-to-face communication as its major educational and promotional channel.

- Research in The Gambia revealed that only three percent of the population is literate and that many women are also pictorially illiterate. Communication specialists designed a flyer which was color coded and could be explained over the radio.

- An African country adopted the same water-sugar-salt ORS formula which had been successfully introduced in The Gambia. However, when researchers investigated audience practices, they discovered the size of the local soda bottle cap was having a significant negative effect on the ORS solution: the one-liter bottle had a screw-on cap which measured more than twice the amount of salt as the Gambian bottle cap. Women were thus mixing dangerous concentrations. Communication planners had to develop a series of messages to reeducate consumers to use a different formula.



*Developmental research in The Gambia consisted of a variety of studies based upon personal interviews, observations, focus groups, and other measurement methods. Audience segmentation was a crucial part of this research.*

What influences (social, economic) can encourage adoption?

What or who are the target audiences' sources of credible information?

What will be the reaction of civic leaders, political leaders, religious leaders, and technical experts to the messages?

Some of these data should already be available, and some should be collected as part of the health problem analysis. A large portion must still be collected as part of the program effort. Such broadbased research may require a number of months and considerable expertise. Research specialists should help determine the appropriate data collection techniques, design questionnaires, train interviewers, and perform data analysis. Sponsoring and cooperating ministries may have their own research units which will be willing to participate. Local universities and private firms, such as market research companies, may be willing to volunteer assistance or can be contracted to help with portions of the data collection. In the interest of institutionalizing the methodology, the research agenda and approaches should be adapted to local resources.

## COLLECTING DATA

The process of developmental research should involve a variety of techniques tailored to the kind of information being sought. Research methods are of two basic types:

**Quantitative techniques:** to count and measure—including a variety of surveys and publicly available indicators such as clinic records and sales data.

**Qualitative techniques:** to probe opinions, practices, and beliefs—including focus group discussions, in-depth interviews, ethnographic studies, and behavior observations.

The public health communication specialist should be acquainted with the range of research methods, and should develop a facility in one or more. Not only during this stage of developmental research, but later when products and messages are being tested, the communication specialist should be sensitive to the types of research methods which provide useful information. Brief descriptions of the most common research techniques are included in the supplemental section at the end of this chapter.

### A Developmental Research Package

What are the minimum essential elements of a developmental research program? One hypothetical package might include the following:

- **Ethnographic study:** in-depth interviews with 25 parents by an anthropologist to gather information about local concepts of disease causation and local vocabulary used to discuss the target health problem.

- **Audience survey:** a knowledge, attitude, and practices (KAP) survey of 200-300 individuals to provide quantitative data on KAP, local communication patterns including radio listenership and ownership, and literacy rates.

- **Health provider survey:** interviews with 25 health workers to determine current practices and treatment norms pertaining to the target health problem.

- **Behavior observation:** structured observation of interactions between health workers and mothers in two clinics to determine what factors might be affecting clinic attendance.

- **Focus group discussions:** discussions with six groups of mothers to probe attitudes towards and experiences with specific health problems or practices.



*Interviews and observations at health clinics can provide important developmental research information. (Indonesia)*

## SETTING PROGRAM OBJECTIVES

The results of developmental research, combined with those of the health problem analysis, allow program planners to establish measurable objectives for the communication program. These objectives must be quantifiable and consistent over the life of the program—impact evaluations will measure the program's success in reaching these goals. The following are a few examples of possible objectives for communication activities in support of a child survival program.

**Exposure:** X percent of the target audience will have heard a radio program, possess a growth chart, or have consulted with a specific service provider within X months of communication activities start-up.

**Knowledge:** X percent of the target audience will state that children need three doses to complete their vaccination series. X percent will state where to obtain ORS packets. X percent will demonstrate knowledge of the growth monitoring chart and state that when the curve begins to descend, the child needs special help and feeding.

**Trial:** X percent of the target audience will report having used ORS at some time to treat diarrhea. The vaccination card of the youngest child will show all of the necessary doses for complete vaccination coverage.

**Adoption:** X percent of the target audience will report treating their child's last episode of diarrhea with ORS.

**Outcome:** Morbidity and mortality due to the targeted health problem will be reduced by X percent among the target audience.

These objectives mark the progressive steps required to bring about a change in health-related behavior—the principal goal of a health communication program. The objectives are hierarchical, each building on the relative success of the previous one. A certain degree of **exposure** is necessary as a foundation for **knowledge**. **Knowledge** may in turn lead to **trial** of the new health behavior by a certain percent of the audience. First **trial** of the new practice will lead to actual **adoption** of that practice by a certain percent. Finally, all of these objectives lead to the larger goal of a public health program, which is a change in morbidity and mortality related to the targeted health problem.

### STRATEGY IN ACTION

#### Analyzing the Culprit

In one Latin American country public health officials tried to identify a series of prevention messages to reduce the incidence of diarrhea in rural areas. They considered two common foods, beans and tortillas, as possible sources for bacterial growth and contamination. The beans seemed like a more probable source—they are warm and moist, are left standing for many hours, and are constantly recontaminated as spoons and hands are dipped into the pot all day long.

Before committing to a “bean message,” however, a communication specialist, a behavior analyst, an anthropologist, and a physician reviewed other possibilities. The behaviorist asked the anthropologist to describe carefully the process for making tortillas. The anthropol-

ogist rose to the occasion and explained in excruciating detail every step. The physician started to get bored by the two social scientists analyzing a typical mother's behavior at such length. But suddenly he said, “What's this about using lime water—do you mean the fruit or calcium carbonate?” When he was told it was calcium carbonate, the physician said the lime might be adding just enough ph to the tortilla to make it an ideal growth medium for bacteria. Indeed, it turned out that a study just completed in another country showed that maize tortillas contain the same bacterial count as human feces within only hours of exposure under normal conditions. This discovery helped redirect the entire prevention campaign.

## SURVEYS

Surveys provide the most systematic means of sampling a large population's belief system. They allow researchers to determine the percent of people in a certain group who reportedly think or act in a specified way. Surveys can be either limited or comprehensive; they can be geared to particular program needs; and they can be efficient. Success in using surveys is dependent upon clearly defined research goals; careful sampling design; questionnaire development and testing; organization of the data collection and processing; and timely analysis and interpretation of results.

### Advantages of surveys:

- Provide quantifiable data on which to substantiate hypotheses;
- If the sampling frame is correct, it is the only research technique which allows valid projections to large numbers of the target audience.

### Disadvantages:

- More costly in terms of time and money than other research techniques;
- No capability of uncovering areas of information not specifically targeted by the researchers. Questions should be developed from qualitative research or a survey may totally miss areas of concern;
- All responses indicate "reported behaviors," not actual behaviors. The interviewee is more likely to answer the way he/she believes the interviewer wants. Moreover the greater exposure to a communication campaign, the more likely the respondent is to report having adopted the desired behavior. Capturing reliable self-reports on attitudes and behaviors requires sophisticated survey design and measurement techniques.

### Approximate time required:

- Two to six weeks to design and pretest the instrument (depending on the objective of the research);
- Two to six weeks to gather data (depending on the size of the survey);

- Two to six weeks to code and analyze data;
- Total time to completion—six to eighteen weeks;

### Resources needed:

- Trained interviewers;
- Good sampling methods;
- Questionnaires;
- Data Analysis.

## FOCUS GROUP INTERVIEWS

Focus group interviews bring together eight to ten respondents typical of the intended target audience. A trained interviewer uses a prepared list of probing questions to collect information on vocabulary, attitudes, and concepts related to the selected health problem. These questions should be designed so as to reveal no bias on the part of the interviewer, but rather to elicit as much detail and diversity from the group as possible. In many countries, focus groups have proved to be an efficient method to analyze commonly-held or traditional beliefs which might not emerge in individual interviews and cannot be anticipated in surveys.

Subgroups within the target audience should be represented. For example, when a group of mothers with young children tests ORT messages, a researcher should be certain to include women who are first-time mothers along with those having two, three, or more children and therefore more experienced in maternal care. If one subgroup might be expected to inhibit discussion, for example if new mothers would tend to defer to the "expertise" of more seasoned parents, then these two groups should be interviewed separately.

A session lasts between 60 and 90 minutes. A moderator follows a discussion outline to keep the session focused on topics of concern. At the same time, the moderator encourages participants to talk freely and spontaneously, probing any relevant new topics that emerge during discussion. The moderator must emphasize that there are no "right" or "wrong" answers to questions raised in the group.

Although the moderator does not need to be an expert in the subject matter, certain "process" skills are

important. He or she must build rapport with the group and be able to ask questions and receive answers without influencing respondents' reactions.

Ideally, respondents are recruited ahead of time and do not know each other. They should be assured that their reactions will be kept strictly confidential. Individuals are sometimes offered an "incentive," most often monetary, to participate.

The number of focus groups that should be conducted to gather views on a particular subject varies. Ideally, researchers should conduct focus groups with different clusters of a single audience segment until no new information is forthcoming. However, the number also depends on the needs and resources of the specific program. If target audience perceptions appear to be similar across groups, three to four groups are usually sufficient.

#### Advantages of focus groups:

- The group atmosphere may stimulate more in-depth discussion than individual interviews do;
- Insights can be obtained relatively quickly.

#### Disadvantages:

- Focus groups should not be used when quantitative data are needed (such as a measurement of choices between two concepts);
- The qualitative nature of the data and the small sample sizes do not provide a clear basis for comparing the results of different groups.



*Focus group discussions must be carefully structured and yet have an atmosphere of openness to encourage the exchange of ideas. Here, a focus group discussion in Malawi begins with songs.*

**Approximate time required:**

- About two weeks for designing the study;
- Two to six days to conduct groups;
- Five days to analyze interviews and write report;
- Total time, from planning to completion of report—up to three or four weeks.

**Resources needed:**

- Discussion outline;
- Trained moderator familiar with appropriate regional dialect;
- Observer to record group reactions as they occur;
- Respondents typical of the target audience;
- Comfortable meeting place for conducting interviews;
- Tape recorder and blank audiotape.

If a meeting room isn't available, the researcher should find a space which is relatively quiet and free from distraction. The observer can sit in the same room with the respondents, placed behind them and out of their line of sight, quietly taking notes. Participants will quickly get used to this presence.

**CENTRAL LOCATION INTERCEPT INTERVIEWS**

Central location intercept interviews or other small sample surveys are based on results of other research efforts. They help substantiate hypotheses.

Intercept interviews are based on "chance encounters." An interviewer goes to a place frequented by members of an intended target audience. Randomly selected individuals are asked specific screening questions to determine whether they fit the criteria of the target audience. The interviewer then invites them to participate in the study. The interview is conducted in a quiet area at the site.

Since a highly trafficked area can lead to a relatively large number of interviews in a reasonably short period of time, the central location intercept method can be

quite cost-effective on a per-interview basis. The kinds of questions asked at central location intercept studies are highly structured and may require both open-ended responses and closed-ended responses. Interviews typically last 10 to 30 minutes depending upon the extent of the information covered.

Researchers should select the central locations *most relevant* to their target audiences in determining sites for this technique. Message-testing for ORT or immunization promotion might take place at a clinic, while family planning intercepts might be conducted at a pharmacy or general market area. If the area is under some kind of formal management, the interviewer should obtain permission in advance.

Although central location intercept interviews (unlike focus groups) provide quantitative data, the respondents interviewed may not be representative of the entire target population. Planners should be aware of the limitation of these data. Nevertheless, a group of between 100-200 respondents for each discrete test will provide a solid set of insights for fine tuning of messages or products.

**Advantages of intercept interviews:**

- The opportunity to obtain a large number of interviews;
- The flexibility of choosing a variety of central locations, as needed;
- The use of highly structured questions to allow quick analysis of results.

**Disadvantages:**

- No capability of gathering a large number of spontaneous and statistically representative responses;
- The unsuitability of certain sensitive or emotion-laden subjects;
- The time limitations placed on each interview.

**Approximate time required:**

- Three weeks to design questionnaire and arrange interviews;

- Number of days required for field work varies depending upon length of interview, number of interviewers, and traffic in central location; average should be about four days.

- Total time required—four to five weeks.

#### Resources needed:

- Structured questionnaire;
- Trained interviewers familiar with appropriate regional dialect;
- Access to central location frequented by individuals typical of target audience;
- Interviewing area.

### INDIVIDUAL IN-DEPTH INTERVIEWS

Individual in-depth interviews build on information gathered during other research efforts, to probe deeper into individual attitudes and concerns. They are useful when sensitive topics are addressed, when issues must be probed deeply, when individual rather than group responses are needed, or when it will prove difficult to gather respondents for a group meeting. They are often conducted along with health practice observations.

These interviews can be conducted in any quiet spot where both interviewer and respondent can concentrate. Home interviews may be appropriate for nursing mothers or mothers with young children.

The interviews should be conducted by an experienced interviewer, or someone who is at least well-acquainted with the discussion outline. Sensitivity to respondents' feelings and a complete understanding of the material are essential. Interviews last anywhere from 30 to 90 minutes, depending upon the depth of coverage required.

Like focus groups, in-depth interviews provide qualitative insights. The sample size is usually small, although 20 to 30 interviews should be a minimum. This limited sample size means that while the data can assist planners in making decisions, findings should not be used to generalize to the broader population.

#### Advantages of the individual in-depth interview:

- The opportunity to probe individual respondents in depth;
- The opportunity to discuss sensitive or emotion-laden topics without scrutiny from others;
- The opportunity to interview hard-to-reach audiences by going to their own homes or own choice of locations.

#### Disadvantages:

- Such interviews may be time-consuming to arrange, conduct, and analyze;
- The information obtained cannot be used to make broad generalizations.

#### Approximate time required:

- Three weeks to design questionnaire and arrange interviews;
- Number of days required to conduct interviews varies depending upon availability of respondents;
- Five to 10 days to analyze interviews and write report;
- Total time, from planning to completion of report—up to four to six weeks.

### ETHNOGRAPHIC STUDIES

Ethnographic studies combine anthropological techniques to analyze how specific health practices relate to the larger cultural context. They require several months and a trained ethnographer, but provide invaluable information about the importance of health practices and beliefs in the larger social system.

#### Common Techniques:

An ethnographic study may employ several or all of the following approaches:

- **Participant observation**—The researcher participates in the daily life of the community(ies) he or she is studying—observing what is happening, listening to what people talk about, asking questions in various ways

over a period of time. Participant observation is the most typical anthropological research technique. It requires study over a period of time—at least six weeks.

- **Direct observation**—The researcher observes, but does not “participate” in an event. The product is a narrative description of certain activities.

- **Informal conversations**—The researcher takes advantage of any opportunity to converse informally either individually or in small groups with members of the community being studied.

- **Directed interviews (in-depth)**—The researcher conducts open-ended interviews with “key informants” (selected persons in the community) over a peri-



*Ethnographic studies help planners understand how health practices relate to the larger cultural context. (Honduras)*

od of time. The interviewer follows a general list of questions, which may evolve over the course of the study.

#### Methods of Record Keeping:

In an ethnographic study, the researcher maintains three types of information: a daily diary, abbreviated field notes, and expanded field notes.

- **Daily diary**—In one notebook, the researcher describes briefly what he or she does every day of the study, also noting special events that take place in the community. This is basically a description of the work schedule of the research.

- **Abbreviated field notes**—The researcher keeps notes during visits to homes of key informants. This information is very simple, sometimes only key words, which can be written without affecting the conversation.

- **Expanded field notes**—The same day of the observation, the researcher expands the notes taken during that day's visits. The expanded field notes include the researcher's personal impressions of what happened during the conversation. These notes are then xeroxed and divided into a series of files for further review and analysis—the community file, the family file, and the topic file.

#### Advantages of ethnographic studies:

- Opportunity to compare actual and reported behaviors;
- Opportunity to observe the cultural context of a behavior or series of behaviors;
- Capacity to follow families and groups over a period of time.

#### Disadvantages:

- Takes a long period of time;
- Analysis of data can be affected by the bias of the researcher who has spent long periods of time and may have become emotionally involved with the people he or she is studying;
- Not as systematic as other techniques.

**Resources needed:**

- Discussion outline or questionnaire;
- Trained interviewer familiar with appropriate regional dialect;
- Quiet room or area;
- Tape recorder and blank audiotape (optional).

**BEHAVIOR OBSERVATIONS**

Behavior observations help communication planners identify the antecedents and consequences of both current and recommended behaviors. They help planners understand why particular practices exist or do not exist, and identify current practices which may serve as the bases for new ones. They also help analyze and describe the desired new behavior. Sometimes planners do not initially understand all of the steps involved in carrying out a new practice. Behavior observation can help define that sequence.

**Basic Techniques:**

There are four basic types of behavior assessment techniques:

- **Frequency recording**—The observer simply counts each occurrence of a particular action during a predefined time period. This provides a record of the rate at which an event or practice takes place (e.g., number of patients entering a clinic or number of ORS administrations in a day).
- **Duration recording**—The observer measures the length of time that the behavior occurs during a predefined observation period. This can be a more refined measure than frequency. For example, a mother may give ORS many times during the day, but only for ten seconds (one teaspoonful) at any one feeding. In this situation both frequency and duration of ORS administration are relevant. Duration can only be assessed if the behavior has an easily determined beginning and end.
- **Behavioral products**—The observer counts the “physical” products, or effects of a target behavior—such as the weight of a child or the number of medications recorded on clinic records—usually at the end of a

predetermined time period. This technique is helpful when other methods may interfere with the behavior under observation or when it is too difficult or time-consuming to observe behavior directly.

- **Narrative recording**—The observer writes a narrative describing in sequence all of the practices observed in relation to a particular behavior. Observations can be organized into a three-column chart (ABC chart) showing events occurring prior to the behavior (antecedents), the subject’s response (behavior), and the events that follow that behavior (consequences). This technique helps specify the conditions within which a behavior occurs, including both stimuli and possible reinforcements. It is useful when observers are unfamiliar with the subject or when two observers cannot agree on the instance of the behavior. Narrative recording provides a good basis for developing hypotheses which are then tested in other ways.

**Methods of Timing:**

The above techniques can be applied within three schedules of measures—interval recording, momentary time sampling, and continuous recording.

- **Interval recording**—The observer divides the total observation period (e.g., 1/2 hour) into a number of equal time intervals, usually ranging from five seconds to one to two minutes. He or she then notes whether or not the defined behavior(s) occurs in each interval. Interval length should be such that the behavior typically occurs only once in each interval.
- **Momentary time sampling**—The observer takes brief “snapshot” observations throughout the designated time period. These snapshots can be evenly spaced or random. For example, momentary time sampling on an hourly basis checking how many women are standing in line outside of clinics can provide a reliable daily average.
- **Continuous**—The observer applies the technique during a continuous period of observation.

In choosing the best procedure for an observation, communication planners must take into consideration who is going to conduct the observation, what will be recorded, and when and how often it is to be recorded.

The rule of thumb is: if the behavior occurs fairly infrequently (less than several times a day), record each instance. If the behavior occurs very frequently (many times each day), take a sample. If the quality of a practice hinges upon how long it lasts, record its duration.

**Advantages of behavioral observations:**

- Opportunity to observe actual, not just reported, behavior;
- Opportunity to observe antecedents—what triggers a behavior; to observe the consequences—or outcomes—of a behavior; to observe the effect of these consequences on subsequent behavior.
- Can be combined with other types of qualitative research such as an ethnographic study to reveal the cultural context in which particular practices occur.

**Disadvantages:**

- Observer's presence may affect or change behaviors.

- Sample is usually small, so conclusions must be interpreted with caution.

**Approximate time required:**

- Two weeks to design and pretest instrument;
- One to six weeks to conduct observations. Observation period could last from several hours to several days depending on the behavior(s);
- Two weeks to analyze data;
- Total time to completion—five to eight weeks.

**Resources needed:**

- Observation instrument;
- Trained observer;
- “Normal” setting.

## STRATEGY DEVELOPMENT

Principles of social marketing guide the development of a series of comprehensive and interrelated program strategies, in support of the established program objectives.

*(Honduras)*



The results of the developmental research provide the basis for designing a series of distinct but interrelated communication strategies. These strategies support the program's specific, measurable objectives. Although they are comprehensive, planners will modify and refine these guidelines after pretesting materials and messages.

The basic strategic plans should include the following:

- Audience segmentation
- Product strategy
- Behavior strategy
- Distribution and training strategy
- Message and creative strategy
- Media channels strategy
- Structure for institutional delivery
- Monitoring and program modification.

The principles of social marketing (product, price, promotion, and place) are particularly useful in designing these outlines. (See Chapter 2.) Each plan must reflect the social, economic, cultural, and psychological realities of the environment in which it will operate.

## AUDIENCE SEGMENTATION

Even in a small, seemingly homogeneous country, there really is no "general audience." A uniform communication program would inevitably speak to some groups, offend others, and be incomprehensible to yet others. Communication planners must use the results of demographic, socioeconomic, and epidemiological research to determine:

- The **primary target audience** for the health promotion—those who the program hopes will actually perform the new health practices;
- The **secondary audiences** for the program—those who influence the primary audiences (e.g., health care providers, family and friends, and popular public figures);
- The **tertiary audience**—decision-makers, financial supporters, and other influential people who can make the program a success.

### STRATEGY IN ACTION

#### When a Secondary Audience Should be a Primary Target Group

Although oral rehydration therapy has been in use in Mexico for over 30 years, diarrheal diseases still kill about 30,000 children under five years of age every year in that country. A recent national survey observed that an average of only 13 percent of children with diarrhea were treated with oral rehydration therapy.

In many developing countries ORS is a very powerful therapy precisely because it can be administered by women in their own homes. Women are the primary target audience for ORS promotion. In Mexico, though, the primary obstacle to adoption of oral rehydration therapy is reluctance of physicians and other health care providers to recognize its importance and efficacy. Mothers listen to their physicians. In this case, a **secondary audience** has been exerting a powerful negative influence upon the **primary audience**.

To address this problem, a clinical training course was designed to overcome the resistance behind professional acceptance of oral rehydration therapy. The training not only provided participants with the latest information about clinical management of diarrhea, but gave them instructions on how to set up oral rehydration units in their hospitals.

This training program preceded a national launch of a new ORS product. Mothers will be one of the **primary audiences** in this new promotional effort.



*A 23-minute video tape on ORT is helping train medical students in Latin America. (Mexico)*

## Determining Audience Segments

In child survival programs, the **primary audience** generally consists of caretakers—mothers, grandmothers, and sometimes older siblings. However, in an area where service providers have limited knowledge, acceptance of, and skills in the new practices, planners may want to consider professional health workers, pharmacists, or other opinion leaders as the primary audience for the first stage of the program.

Since the range of caretakers can be broad, planners usually segment this audience into smaller sub-audiences. For example, urban mothers may need a different communication strategy and different educational materials than rural mothers. Given limited time and resources, planners must designate the audience segment most critical to program success. This may be a geographic or socioeconomic group considered at highest risk, one with low access to health care services, one which can be most effectively reached with limited resources or an existing outreach system, or the segment which is most disposed to initial adoption of new behaviors.

**Secondary audiences** are those who can be motivated to teach, support, and reinforce the practices and beliefs of the primary audience. Few communication programs are successful if they ignore the potential of these groups. Moreover, the politics of a given program may mean considerable effort must go into a promotional effort directed at the **tertiary audience**.

Different child survival technologies require quite different primary and secondary audiences. For example, the developmental investigation for a breastfeeding program may indicate that most rural mothers are breastfeeding and that the trend away from that practice is mostly in urban areas. The communication component would, therefore, consider its primary audience urban women from 18-40, particularly those living in marginal urban areas. The secondary audience might be their husbands, their employers, or neighbors. However, in that same country, diarrheal disease mortality might be highest in rural areas, especially in one geographical area. The primary audience for the ORT communication component would be rural women. The secondary audience might be traditional healers or older women with experience and influence.

## Implications for Planning

Audience segmentation allows planners to quantify particular target groups to determine the amount of products, services, and educational materials which



*The opinions of a secondary audience can have an important influence upon the actual consumers. (Honduras)*

will be needed in a period of time. Most importantly, it is the basis for developing both **products** and **promotional messages**.

Audience segmentation is also the first step in gauging **market potential** for a new product. A large market may be good news to retail salespersons who will distribute the product. It may be bad news to the public health authorities if the **service delivery system** cannot meet potential demands. The selection of a primary target audience should go hand in hand with a realistic assessment of the service delivery system. In child survival programs, demand creation must be guided by the ability of the health system to deliver services in order to avoid alienation of consumers.

## PRODUCT STRATEGY

As pointed out in Chapter 2, the **product** in a child survival communication program may be a commodity, an idea, or a health practice.

Of all the child survival technologies, ORS is the most conventional commodity, and may range from expensively packaged tablets to low-cost home solutions. Other products in a diarrheal disease program—such as the **practice** of giving liquids and not withholding food or administering purges—require careful definition. The products in a vaccination pro-

gram include the vaccine itself, the immunization card, and the **belief** that vaccinations can prevent potentially fatal illnesses. The product in a breastfeeding program is readily available, and yet one of the hardest to promote. To many women in the Third World, breast milk is a second-class product in comparison to infant formulas.

The **product strategy** uses developmental research to determine what the specific products should be in relation to a given health problem and a given audience. It then defines, positions, and prices these products in ways which are in harmony with the users' beliefs, practices, and values. Analysis of the primary audience subgroups may indicate that one product will not be suitable for everyone. The alternative is a **product mix**, for example two different ORS brands set at different prices and "positioned" differently.

### Positioning the Product

Every commodity has physical attributes. It has a package, a name, color, size, and so forth. Even a product which has no size and color, however, can be linked with certain benefits, a clear rationale, and cul-

tural and psychological appeal. The communication planners must decide what "position," or special niche, this product should hold in the mind of the consumer. This requires promotional messages which:

- establish a product personality that stands out;
- feature the most compelling benefit—that which the user most wants.

In many cases, the "product" for a child survival program is already established and ways must be found to make it more acceptable to the user. For example, some immunizations produce reactions, but communication efforts can teach specific skills for treating those reactions and help parents understand why the reactions occur.

### Refining the Price

The monetary cost of a commodity is influenced by:

- the intended portion of program costs that income must cover;

## Finding the Right "Niche" for a New Product

Imaginative planners can find literally dozens of ways to "position" new products so that they appear attractive and address needs that consumers consider important. ORS, for example, has been promoted in different countries based on a wide range of local concerns.

Communication specialists had to be inventive in Honduras because the target audience did not have a concept of dehydration. Since tonics are widespread and popular, planners decided to position Litrosol, the new product, as a "tonic to restore appetite and energy" during diarrhea.

"Dryness" due to diarrhea proved to be a common concept in The Gambia. Public health officials, however, also wanted to discourage certain practices such as withholding food during diarrheal episodes. The campaign therefore concentrated on nutrition as well as oral rehy-

dration. It promoted these different practices under the theme, "a diet for diarrhea."

In Swaziland, communication specialists launched a similar campaign under the theme, "Arm Yourself Swazis!" encouraging an aggressive attitude toward the killers, diarrhea and malnutrition.

Indonesians have a complex system for describing diarrhea and dehydration which proved useful as the basis for an economical promotion of ORS. Given the high number of packets required to treat *all* episodes of diarrhea, planners decided to recommend use at a point in the episode which minimizes both risk to a child and the number of packets required nationally. A three-tiered approach was developed: planners are promoting home fluids for "beginning diarrhea," ORS products for "diarrhea plus weakness," and treatment at a health facility for "moderate to severe dehydration."

- consumers' ability to pay;
- the profit margins required to maintain the interest of distributors;
- the price of similar consumer products;
- government regulations about profit margins and price controls.

In developing countries the primary audience may have *no* money for health care. Often a marketing strategy has to support a low-priced or free product, distributed through public health systems and community volunteers, while charging a higher price for a product distributed through pharmacies.

Even the product or service available at a public health center, however, has a price. Audience research reveals the **level of investment**—in terms of distance traveled, time and effort, and so forth—associated with that product. The product strategy must determine which factors it may be possible to change. Promotional messages must then make the price seem acceptable to the user.

Ethnographic research helps planners refine the “ideal behavior” list created as part of the health problem analysis (described in Chapter 3). Findings may indicate, for example, that certain local practices are particularly harmful and should be targeted in campaign messages. Other practices may be easily adapted to conform with important steps in the preventive or treatment categories. At this stage, planners should rigorously limit the number of new behavior steps they consider essential to the performance of the “recommended practice.”

Behavior analysis again provides the tools for selecting these steps in a systematic fashion. An interdisciplinary team of a physician, communication specialist, and behavior analyst should weigh the specific steps established in the detailed profile against such considerations as the health impact of the practice, the complexity of the behavior, its frequency, persistence, and other factors. Figure 5-1 shows an evaluation checklist which can help determine which behaviors are the highest priorities for promotion. Each recommended step is rated from 0 to 5 in nine different categories. Those discrete behaviors with the highest total scores are those which should be considered most critical to the target audience's adoption of the new health practice.

### New Ways to “Position” an Old Practice

How does a communication program promote a practice which is viewed by many women as behavior which is unglamorous and backwards? Two countries successfully demonstrated different ways to “position” breastfeeding as a worthwhile, even beautiful practice.

In Brazil, popular female movie stars volunteered their time to give testimonials on television, explaining the importance of breastfeeding. Their support gave breastfeeding new glamour and value.

Communication planners in Honduras began with a simple flyer depicting a rural woman breastfeeding. It was Valentine's Day, and they spontaneously added a little red heart to the picture. Then they decided to add a halo to the woman's head. When they pretested the flyer, the red heart was fine, but the halo offended some Protestants who thought it was a Catholic program. So the designers replaced the halo with a laurel wreath, and added a long-stem rose. The poster was wildly successful. Monitoring showed that women made up stories about how a husband or boyfriend had given the woman a rose because she was such a wonderful, loving mother.

## Madre que pecho da



**¡Es Madre de Verdad...!**

Programa de Salud Pública y S. Dirección de Educación - Unidad Técnica de Diseño Gráfico

**FIGURE 5-1: BEHAVIOR EVALUATION CRITERIA****Health Impact of the Behavior**

- 0 No impact on health problem
- 2. Some impact
- 3. Significant impact
- 4. Very significant impact
- 5. Eliminates the health problem

**Positive Consequences of the Behavior**

- 0 None which mother could perceive
- 1. Little perceptible consequences
- 2. Some consequences
- 3. Significant consequences
- 4. Very significant consequences
- 5. Major perceptible consequences

**Cost of Engaging in the Behaviors**

- 0 Requires unavailable resources or demands unrealistic effort
- 1. Requires very significant resources or effort expenditure
- 2. Requires significant resources or effort
- 3. Requires some resources or effort
- 4. Requires few resources or little effort
- 5. Requires only existing resources

**Compatibility with Existing Practices**

- 0 Totally incompatible
- 1. Very significant incompatibility
- 2. Significant incompatibility
- 3. Some incompatibility
- 4. Little incompatibility
- 5. Already widely practiced

**Approximations Available**

- 0 Nothing like this is done now
- 1. An existing practice is slightly similar
- 2. An existing practice is somewhat similar
- 3. An existing practice is similar
- 4. Several existing practices are similar
- 5. Several existing practices are very similar

**Complexity of the Behavior:**

- 0 Unrealistically complex
- 1. Involves a great many elements
- 2. Involves many elements
- 3. Involves several elements
- 4. Involves few elements
- 5. Involves one element

**Frequency of Behavior**

- 0 Must be done at unrealistically high rate to achieve any benefit
- 1. Must be done hourly
- 2. Must be done several times each day
- 3. Must be done daily
- 4. May be done every few days
- 5. May be done occasionally and still have significant value

**Persistence**

- 0 Requires compliance over an unrealistically long period of time
- 1. Requires compliance over a very substantial period of time
- 2. Requires compliance for a week or more
- 3. Requires compliance for several days
- 4. Requires compliance for a day
- 5. Can be accomplished in a brief time

**Observability**

- 0 Cannot be observed by an outsider
- 1. Is very difficult to observe
- 2. Is difficult to observe
- 3. Is observable
- 4. Is readily observed
- 5. Cannot be missed

## DISTRIBUTION AND TRAINING STRATEGY

Poor accessibility is often a major hurdle for child survival programs. The distribution strategy should determine what the appropriate and powerful channels will be for making commodities and services available to the consumer. It should also define the role of the public sector, wholesale networks, private retail outlets if appropriate, and professional health providers and volunteers.

The point or system of distribution is usually the point for training and support as well. The training strategy should establish who will be trained: physicians, pharmacists, health center workers, traditional healers, small store owners, or local volunteers. It should establish details about numbers to be trained, schedules and materials, and hierarchy (if relevant) of trainees training other groups. The training strategy should establish a link between those who design products and communication materials, and those who design and conduct training, to make sure both groups promote the same messages. It must also reflect the ministry of health training norms and activities.

### MESSAGE STRATEGY

The **message strategy** lays out in detail what will be said to different audience segments about the different products. It establishes common themes which tie together all aspects of the promotion. It grows directly out of the program objectives and the product "position." To compete in the marketplace, messages must excite the eye and ear; they should generate trust; and they should appeal to both the heart and the head. The message strategy usually defines the following elements:

#### Content

Health objectives and target behaviors are translated into vocabulary and phrases of the primary audience. For example:

- A **communication objective** for an immunization program might be, "X percent of the target audience will state that a child needs three vaccinations to complete the series."

### STRATEGIC ACTION

#### Distribution Networks That Work

An important aspect of the communication strategy's consumer orientation is its search for distribution systems that fit the consumer's preferences and the community's traditions. Every country presents different possibilities:

- Indonesia has a rich tradition of volunteers, or *kader*. The Ministry of Health has trained *kader*, primarily women, in nutrition education, family planning, and so forth. It was logical that they also use such a network to bring oral rehydration packets and information to rural women. *Kader anak sehat*, or "child health volunteers," are selected by village chiefs from among the literate members of their communities. Some are selected because they have already received training in nutrition or family planning, or because they are members of the Women's Welfare Organization (PKK), another important women's network.
- Part of the diarrheal disease control strategy in The Gambia was to train local women, approximately one for every three villages, to provide face-to-face instruction to others in the home-mixed oral rehydration therapy. The women were chosen by village chiefs. Most were older, respected members of the community. Some were traditional birth attendants. They became known as "red flag volunteers," because of the red "happy baby" flag which identified their homes.
- In Honduras, communication planners identified local mayors as an important source for community information. Early in the program, mayors were given supplies of ORS and trained to provide instruction in diarrheal disease management. The arrangement appeared to be working well; however, health professionals objected and the mayors' role was eventually discontinued.

- The promotional message might be "Three of the 'three-some' (local vocabulary for the DPT vaccination) keeps your baby healthy. Remember, it takes 'three for three' to complete the whole series your child needs to be protected."

All of the communication channels—mass media, print, and interpersonal—must deliver this same message.

**Appeal**

Product appeal might be emotional or rational, educational or motivational, hard sell or soft sell, scientific or traditional. The basis of appeal should vary according to target health technology and target audience. For example, ORS might be promoted to rural women as the most recent scientific breakthrough in modern medicine, while breastfeeding might be promoted with an appeal to traditional ways and the theme, “our mothers knew best.”

**Image**

The product might project a rural or urban image, a modern or traditional one, sophisticated or folksy, and so forth.

**Mood/tone**

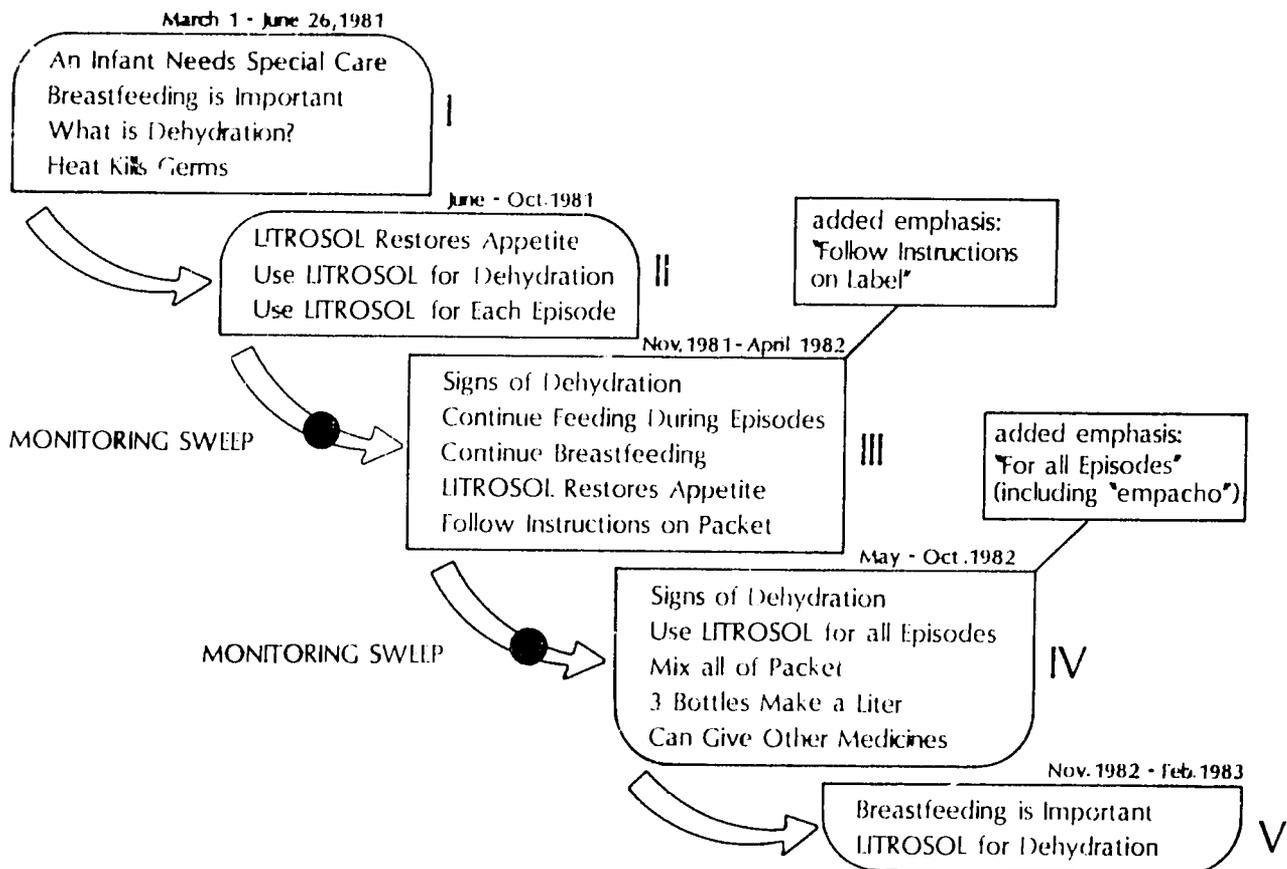
The tone of the promotion might be humorous, serious, family-oriented, scientific, and so forth.

**Message phasing**

All messages cannot be delivered simultaneously. Planners must rank messages based on communication objectives, and select those first which are essential to basic comprehension and successful first trial of behavior. An example of message phasing for a growth monitoring program might be:

- **Phase I—Informing and creating awareness:** “Children grow at different rates, but like plants they need to grow steadily. Growth monitoring helps you know if your children are growing.” (Activity—training of service providers in better skills related to weighing, registering weight on the growth charts, and training mothers to understand the chart. Time required—three to six months.)

**FIGURE 5-2: MESSAGE PHASING IN THE HONDURAS ORT PROGRAM--1981-1983**



- **Phase II—Motivating behavior:** “Obtain your Growth Monitoring Chart at the Health Center. Seek assistance from service providers if the growth curve begins to descend.” (Time required—three to six months.)

- **Phase III—Reinforcing behavior:** “Take your child to the health center for growth monitoring each month through age two.” (Activity—refine messages and reinforce correct performance, based on monitoring information. Time required—three to six months.)

### Source of Information

Every health technology needs a credible “sponsor.” The source or sponsor of information may be a

real person—an actor/actress, religious leader, political leader, or other well-respected person or institution. It may be a fictitious person—Dr. Healthy, Mrs. Loving-mother, or Nurse Cares-a-lot. It may be a caricature such as a comic book character. Various potential sponsors should be tested for acceptability with the target audience.

### Message integration

Many national programs integrate several child survival technologies under a single theme. The promotional strategy must devise an umbrella concept to tie the programs together (such as “Young babies need special care”). It is especially important that this theme grow out of the cultural context of the primary audience.

### Would You Trust This Source?

The “sponsors” of child survival programs are sometimes movie stars, sometimes the wives of presidents, sometimes rock singers—but not always. Sometimes they aren’t even real; and sometimes they aren’t even human.

- **PREMI**, the national five-year child survival program in Ecuador, adopted a logo showing two young children, a boy and a girl. Mothers selected the drawing in focus groups. Later, research showed that mothers continued to be reluctant to subject their “defenseless” babies under one year old to the trauma of vaccination. Communication planners decided to add a third child to the logo: a little one year old boy. Mothers named him Carliman, or Carlitos. The name Carliman (pronounced Karl-ee-man) plays on the vowel sounds of HE-Man, a popular cartoon character. Carlitos is now the hero of the campaign, and of numerous comic strips describing his feats.



- **Dr. Salustiano** (or **Dr. Healthy**) was a deep-voiced fictional radio character in Honduras with a homely image. The caring voice of the actor who played Dr. Salustiano made him an instant hit. Within a year, local pharmaceutical firms used the same actor to promote their drugs. After a lull in the campaign, the director general of health held a press conference and a reporter asked, “When will the Ministry of Health reinstate Dr. Salustiano?” The director general replied casually, “Oh, someday he’ll come back.” But the reporter responded, “Dr. Salustiano is an important figure in Honduras and the public demands that he return to give us helpful advice.”

- **La bolsa**, according to traditional Honduran beliefs, is a bag which rests in the lower middle abdomen and contains worms. When a person eats greasy or spoiled foods, the worms leave their bag and cause diarrhea. There is no medical foundation for this belief, and the Ministry of Health did not want it encouraged. Communication specialists decided to make use of the local belief in a comic way, without ridiculing it. *Lombrecio* and *Lombrolofo*, two charming worms, were introduced in a radio spot in which they talked to each other about life in the bag. They described the things they hate most: clean food, boiled water, and so forth. The Ministry of Health was satisfied. The audience loved them.

## MEDIA CHANNEL STRATEGY

The **media channel strategy**, also called the **media mix**, is based on research about channel prevalence and preference among the target audience. It describes the combination of all channels—interpersonal contacts, radio, television, posters, flyers, newspapers, billboards, and so forth—which will deliver program messages.

Media mix is based on:

- Reach and frequency of each medium or channel;
- Impact of each medium or channel;
- Relative cost of each medium or channel.

“Reach” is the number of those in the target audience who see or hear a message during an established period of time. “Frequency” is the average number of times the target audience hears or sees a specific message during that period of time. Although private sector broadcasting is more expensive than donated government station time, it may be cost-effective to pay for time on those stations and programs which have greater reach and frequency.

A channel may have tremendous impact upon one audience group without having a high frequency or reach beyond a prescribed area. Planners may supplement media having the necessary reach and frequency with channels they consider especially culturally appropriate—such as puppet shows, local fairs, and so forth. The communication planner must consider the following elements in determining the media mix:

- Which channels will be used for each message;
- What particular roles each medium will play—outreach, coverage, reminder, instruction, credibility source, and so forth;
- The intensity required for each channel;
- How different channels will be integrated and be mutually supportive. How radio broadcasting can support service providers or print materials. How print materials can be most useful to providers and other opinion leaders. How interpersonal contact can build on and provide credibility for mass media and print materials.
- How messages will be scheduled to reflect seasonal characteristics of the health issue (diarrhea messages during peak diarrhea season, immunization messages during “immunization weeks”).



*A communication medium may have tremendous impact upon one audience without having a high frequency or reach beyond a prescribed area. (Ecuador)*

The channel strategy should include a schedule for all broadcasting. It should describe the distribution plan for the print and mass media materials. Figure 5-3 illustrates how each of the communication channels (broadcast, health workers, print materials, and opinion leaders) in a Honduras communication program interacted to deliver not only messages but Litrosol (the ORT product).

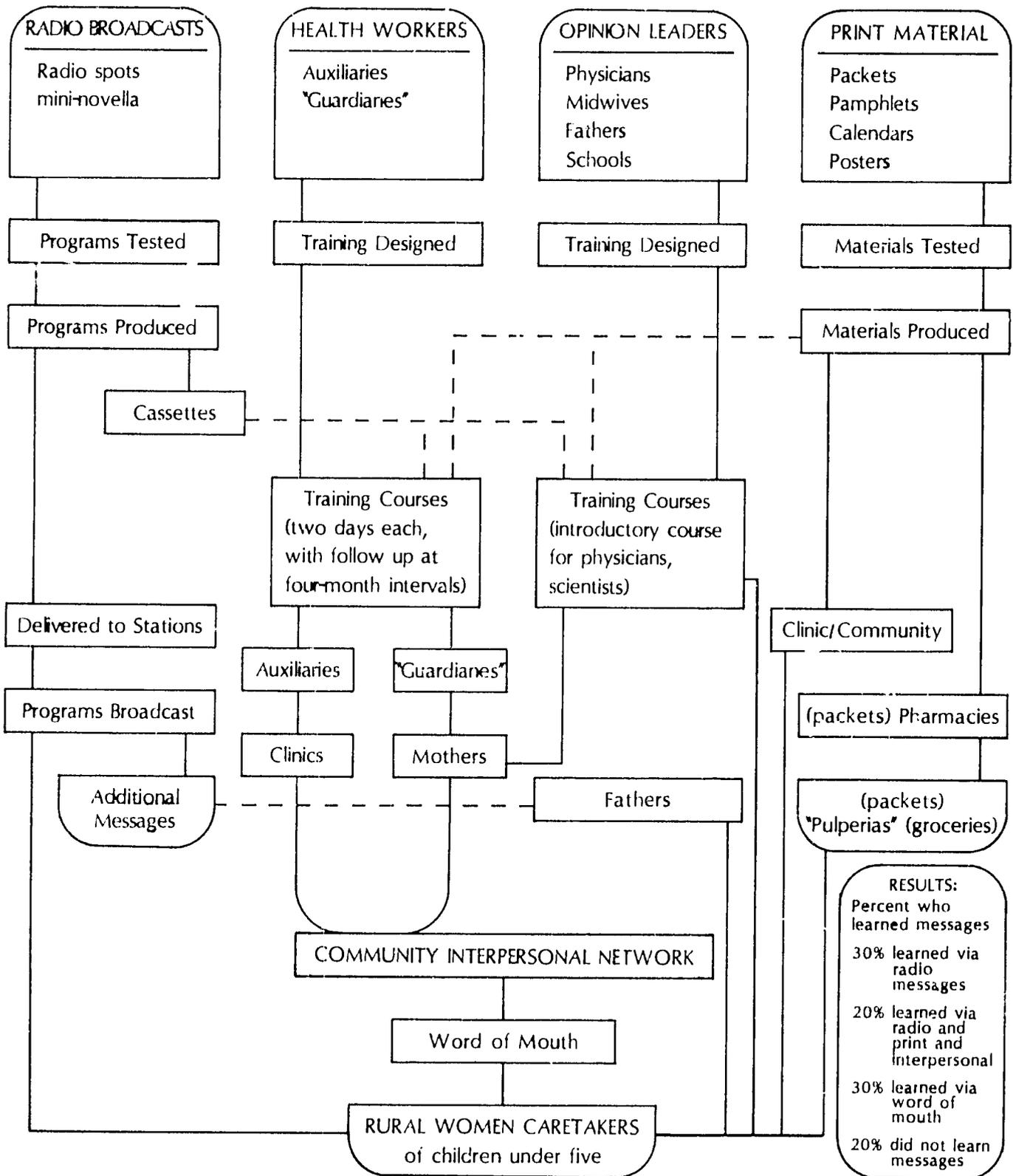
## INSTITUTIONAL DELIVERY

The **institutional delivery strategy** determines who, or what group, will be responsible for each activity. An implementing agency must guide the public health communication process through its various stages. This agency may be either a private or public sector institution. Often public and private sector groups work together providing guidance and expertise. Effective institutional delivery may involve:

- Contracting private sector advertising and marketing firms to review strategies, carry out research, testing, or media placement;
- Inviting local private voluntary organizations to develop message strategies and deliver products, materials, and messages;
- Integrating public and private efforts under a single umbrella, allowing each institution to proceed independently but consistently with the overall plan.

(See also Chapter 10, “Management and Institutionalization,” for further illustrations of management models.)

FIGURE 5-3: DELIVERY SYSTEM OF THE HONDURAS ORT PROGRAM



## BROADCAST MEDIA

Television and radio broadcasting are central to a public health communication program. They have extensive reach and popularity. Broadcasting can continue throughout a communication activity, into every village, while contact with health care workers and community facilities will be less frequent and less intense.

Television coverage is now extensive in many developing countries. Even in countries in which the vast majority of people do not have access to television, programming can help ensure that health professionals and decision-makers understand and support a large-scale national program.

Radio broadcasts usually reach a larger percent of the total population at lower cost. Typical programming varies greatly from one country to another. Latin America and many parts of Asia have multiple commercial channels. There, radio is largely an entertainment medium. Both news programs and commercials, however, heavily influence popular opinions. Most African broadcasting is controlled by government-operated stations. Programming is primarily geared to national development and education and reaches large percentages of the population—both urban and rural.

### Open broadcast radio and television can:

- **Reach everyone** who has a receiver. Receivers do not discriminate according to race, ethnicity, or sex. While individual ownership may vary significantly from one geographic area to another, the cumulative impact of broadcast media on the traditional rural information system is extraordinarily high.
- **Teach specific cognitive skills** such as basic numeracy, language arts, and new health skills such as mixing oral rehydration solutions.
- **Model new behavior.** Television, particularly, has the power to demonstrate complex instructions.
- **Reinforce and remind people** of critical information previously taught by service providers, or provided in printed material.
- **Inform large numbers of people** of seasonal and even daily variations in critical aspects of the project, such as an immunization campaign, availability of a new product or educational material, cost of a new product.



*Women in Ecuador had the opportunity to participate in seven-week child survival courses broadcast over the radio.*

- **Stimulate popular support** by creating an atmosphere of enthusiasm, encouraging people to feel part of large and important new programs.
- **Link rural people from distant areas** and permit direct exchange of experience building upon their basic trust of others like themselves.
- **Transmit people's concerns** directly and persuasively to decision-makers, thereby increasing the relevance of national and regional policy-making.
- **Increase the community acceptance of primary health care workers** in rural areas and offer reinforcement and praise.
- **Motivate and provide continuing support** to isolated service providers.
- **Provide in-school programming.** If health subjects are part of a primary or secondary school curriculum and teachers are familiar with the use of radio in a classroom situation, specially designed, low-cost programs can be powerful teaching aids.
- **Motivate ad hoc listening groups.** Selected health workers provided with inexpensive tape recorders and a series of taped radio programs can help motivate village learning groups.

## GRAPHIC AND PRINT MEDIA

**Graphic/Print Media** are supportive communication tools, adding depth and range to an informative message. Printed materials allow the viewer/reader to assimilate information slowly, to consider it at greater length, to place it more clearly within his/her own personal psycho-social environment, and to refer to it over time.

Common materials include photonovels, posters, handbills, flyers, instructional labels, and point-of-purchase displays at local pharmacies and rural stores. Different types of print material, if well designed, can perform different roles. For example:

**Village flipcharts, simple flyers, and handbills** can:

- Reinforce aspects of the message contained in a radio program and study guide unit;
- Serve as regular reminders of specific detailed information;
- Illustrate the theme of a program through three or four large photos, maps, or drawings;
- Provide a focus for discussion;
- Show aspects of the program subject that people may have heard about but have never actually seen.

**Point-of-purchase materials** have traditionally been used by the commercial sector to:

- Give the product a visual identity;
- Attract consumers' attention within the store to purchase a new product;
- Provide basic information on product use.

**Health worker study guides** can:

- Repeat the message of the program in succinct form;
- Provide a short body of written material (400 to 500 words a unit) to be read aloud, normally by the leader;
- Provide a copy of the discussion questions for each member;
- Provide something for each member to take away and read (or have read to them) between meetings and

after the program—a reference book and symbol of membership of a massive study program.

**Photonovels and Comic Books** can be popular vehicles for discussing serious health problems and promoting specific health behaviors. They are especially appropriate for semi-literate audiences in countries where these media are common sources of entertainment. Wall posters and handbills printed on inexpensive paper and distributed regularly through local commercial channels can serve the same purpose. Postcards have also served this function in several innovative projects.

## INTERPERSONAL CONTACTS

Personal contact with health workers, volunteers, or some knowledgeable or influential individual in the community is critical to the success of any communication campaign. For a detailed discussion of the role and importance of person-to-person communication, see Chapter 8.



*Health centers are convenient distribution sources for health-related print materials. (Honduras)*

## TRADITIONAL MEDIA

Local drama groups and musicians are often powerful vehicles for the sharing of health-related messages. Some countries have used traveling health fairs with puppet shows, musical acts, distribution of printed materials, and appearances by local celebrities. Such fairs may travel from village to village, stimulating interest in national and local programs.

## PROMOTIONAL ACTIVITIES

Promotional activities may include a wide range of events and items, from free samples of products to national lotteries and other contests. Buttons, simple prizes, and even cash awards can be distributed to early adopters of new health practices. These rewards provide motivation for more reluctant members of the commu-

nity. Early research helps determine which of these and other ideas are most appropriate in a given setting. In urban settings, a telephone hotline might be established to provide specialized information and answer specific questions. Random telephone calling can reinforce some behaviors. (Every week a certain percentage of a given area might receive phone calls, reminding them of some selected health issue or target practice.) Resource centers can be set up temporarily in stores and serve as distribution points for information and advice as well as places where people can go to get questions answered.

While all of these creative approaches can add color and impact to a program, they are of course no substitute for sound research into current and promoted behaviors and into the constraints faced by people being asked to change. The best promotional ideas will not compensate for unrealistic advice or poorly constructed messages.



*A group of participants in the Ecuador child survival radio course at their graduation ceremony. Printed certificates and recognition by family, neighbors, and community leaders can be important motivating factors.*

## TESTING MATERIALS AND STRATEGIES

Communication planners should field test new products, delivery strategies, behaviors, and educational materials before introducing them on a large scale. Testing will show if new products and materials are attractive and acceptable to consumers and if new strategies really work. Costly mistakes can be avoided.

*(The Gambia)*



A new stage of program development begins with the testing of program strategies and materials. A great deal may be learned by conducting field tests of new products (**product testing**), delivery strategies (**market testing**), and behaviors (**behavior trials**). **Materials pretesting** is essential for such items as ORS packet labels, growth charts, vaccination cards, or promotional and educational materials such as flyers, flipcharts, and radio programs.

These "rehearsals" may seem to slow down the intervention and to be an unwanted expense in terms of time, money, and effort. However, skipping them may later result in much greater losses of effort if an untested product or strategy is a failure on a large scale. To be effective, a test must be systematic—founded upon clear goals, carefully monitored, and consistently analyzed. Field testing should occur throughout the life of a project whenever new products or educational materials are introduced or new training programs initiated.

## PRODUCT TESTING

Product testing has always played a major role in commercial marketing. It has only recently been applied to public health issues such as child spacing and ORT. Applications to such technologies as immunization, growth monitoring, and nutrition are even more innovative.

Product testing provides management with feedback on the probability of new products being accepted in the marketplace. It is especially critical when:

- Decision-makers are highly uncertain about a product;
- The wrong decision will be extremely costly;
- Product performance is crucial to long-term consumer acceptance;
- Competition is strong and product improvements give an important edge.

Product testing can take place in homes, stores, clinics, or other central locations. It involves observing small numbers of potential consumers actually using the product and then probing their reactions. Consumers are often asked to test alternative products or alternative packaging and names for the same product and to select the one which they prefer. Another strategy is to leave a sample of the product with the consumer and then measure usage rates over time to

### Subtle Changes Can Make a Difference

Careful pretesting of the new ORS product in Honduras led to a package label with four boxes showing the four steps for correct mixing. Small numbers placed on the top exterior of each box showed the correct order of the steps. An expatriate artist, however, decided that the numbers would be graphically more interesting if they were larger and placed inside the boxes. Retesting showed that this subtle change made a tremendous difference to the target audience. Now they interpreted the numbers not as an indication of sequence, but as an indication of volume and amount—so that one cup of water was to be added to the bottle; two corners were to be torn off the packet; three packets were to be emptied into the bottle; and the bottle was to be shaken four times. This would have produced a lethal ORS solution. Program planners went back to the original design.



predict long-term patterns. This extended usage test generally requires that all major brands of a product be made available along with the new one.

#### Market Testing in the Field

**Market testing** goes beyond investigations of individual products. It is the systematic testing of strategies and systems in actual field situations. The marketplace essentially becomes a laboratory for examining the various interdependent elements of communication and product promotion.

A traditional market test promotes a product in a limited area to see how consumers respond. Marketers usually use sales as the measure of a test's success. Public health communication programs, however, also look at such issues as management control and correct usage.

**Behavior trial** is a small-scale field test of a new behavior to help determine its viability as an intervention on a larger scale. The behavior trial helps determine consumers' abilities to use products correctly. Similar tests also measure the success of pilot training programs. In both cases, the behavior trial investigates a target group's correct performance of discrete practices. This type of study can help:

- analyze those parts of the desired behavior which are, and are not, readily adopted;
- identify material or behavioral barriers to the adoption of the new practices;
- identify what works best to reinforce learning of the new behavior.
- refine teaching and reinforcement strategies for the desired behavior.

(For further discussion of training and behavior analysis, see Chapter 8.)

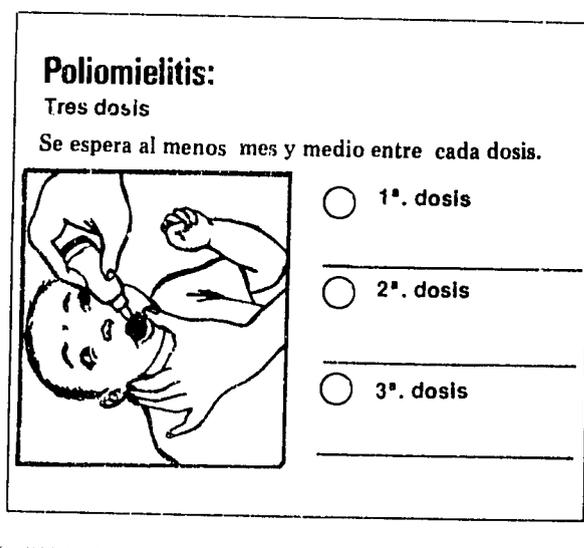
#### Pretesting of Informational and Educational Materials

Informational and educational materials should be pretested with representatives of the target audience. Criteria should include attractiveness, understandability, acceptability, capacity for inclining an audience to identify with the topic, and overall per-

#### When a Product Isn't Serving Its Purpose

Observation and in-depth interviews in rural clinics in Honduras revealed that many mothers were bringing in children for vaccinations who had already completed the required series. The women, most of whom were not literate, could not read the vaccination card, a complicated cross-hatch of tiny script which the nurses sometimes filled out with roman numerals. These mothers had frequently walked miles to the health center, and were then chastised by the nurses.

Interviews showed, however, that mothers did for the most part associate a particular vaccination with the place where it was applied—polio orally, measles deeply in the arm, tuberculosis more superficially in the arm, and DPT in the hip. Communication specialists designed a new immunization card that graphically depicted each immunization and the number needed to complete the series. The new card also became the basis for a new message strategy.



suasiveness of messages. Planners usually present alternative materials and participants are asked to select the one which is most in line with those criteria.

Methods for pretesting and evaluating materials include gatekeeper review, readability/visual literacy tests, self-administered questionnaires, central location intercept interviews, individual in-depth interviews, and focus group interviews.

## MANAGEMENT OF PRETESTING

Just as the actual process of pretesting is critical, so too is management's attitude to this process. The point, after all, is to discover possible weaknesses in products, or to detect the potential failure of a training program. Those who have been committed to creating these products and building these programs may easily be discouraged by such an activity if it is not handled appropriately.

Management must involve materials and program designers in much as possible in the pretesting procedure, so that it is viewed as part of the creative process. For the same reason, pretesting should begin as early as possible. The prospect of a "rehearsal" should be

used as a basis upon which to encourage innovation—a stage which allows changes and even "mistakes" to be productive. It should be used to help inspire confidence in both technical people and government officials, as a chance to improve products before incurring the costs of final production or distribution.

The pretest is another opportunity to reinforce a "learning group" atmosphere. Those artistic or technical professionals who transform the results of research into materials or programs are brought into the decision-making process, and interact with their colleagues in research and management. The pretest is a special opportunity, and challenge, to keep the long-term goals of the program uppermost in mind.

### STRATEGY IN ACTION

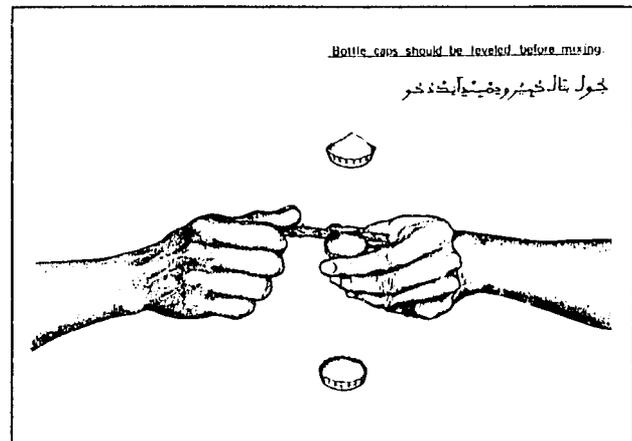
#### One Observation is Worth a Thousand Theories

"Mixing trials," observations of individuals actually going through all the steps of preparing oral rehydration solutions, are the most effective tests of whether people are really learning to perform a new behavior correctly. Sometimes these observations can lead to changes in the product itself or in the instructions given to an audience.

In The Gambia, mixing trials of the home-mixed water-sugar-salt solution demonstrated that rural women frequently filled the bottle caps (used to measure the salt) too full. This could result in potentially dangerous solutions. The product testers discussed this problem with mothers in focus groups. The mothers came up with the idea of using a "chew stick"—a local toothbrush—to level the measurement. Subsequent campaign messages incorporated this new step.

In one Latin American country, observation trials of nurses mixing ORS revealed that as much as 20 percent of the salts were being spilled, since the bottle neck was so narrow. Product testers became alarmed and decided to extend the trials to include rural women and see whether the problem would become even more serious. In these trials, rural women spilled less than 1 percent of the salts. But when the nurses saw that the mothers could

perform this task better than they, they were too embarrassed to continue demonstrating the procedure. Program planners invented a simple funnel that the nurses could use during demonstrations. The funnels, however, were never recommended to mothers.



*The Gambia "chew-stick" instructional flyer, based on an idea suggested by mothers in focus groups.*

## WRITING THE OPERATIONAL PLAN

Following the testing of materials and strategies, planners finalize the operational plan. The plan is a management tool; the efforts of a working group to refine, coordinate, and outline the elements of this plan build consensus and cooperative "ownership" of the program.

*(Honduras)*



The **operational plan**, which usually covers a year or more, serves not only as a guide for program planners but also as a record of the program objectives and strategies, which can be referred to and modified as necessary.

The plan is also a management tool. It should be the work of a group of people—the learning and working group—whose expertise and cooperation are vital to the program. The actual writing of the plan should be a consensus-building task. To a great extent, those who are involved in its production will have “ownership” of the program, and will be committed to its success. The greater the number of people who feel a part of this decision-making process, the greater the chances of success will be.

For the operational plan to be useful as a program guide and a record of schedules and schemes for coordinating different strategies, it must be a written document. The fact that this plan is written, however, and is the creation of a group rather than a single individual, also gives it a certain impersonal status. It is an object which can be discussed and changed, as agreed to by the group, with minimum loss of face to any member.

The operational plan should include:

- **Principal research findings:** summary of existing data and results of the developmental investigation, including points needing further research.
- **Behavior analysis:** a detailed description of the health practices selected for attention through the behavior analysis process.
- **Program objectives:** a statement of specific, realistic, measurable, communication objectives.
- **Audience segmentation:** a description of the primary and secondary audiences.
- **Product strategy:** descriptions and plans for procurement, pricing, and distribution of products and services.
- **Creative strategy:** stating the key messages, their sequencing, and the overall tone for the campaign.
- **Promotional plan:** outlining the media mix, relationships between different communication channels, and distribution plans for promotional materials.



*The writing of the operational plan should be a consensus-building task. (Honduras)*

- **Training plan** identifying health workers to be trained and outlining a general curriculum and methodology.
- **Monitoring plan** including feasibility tests and other techniques to refine program strategy and assess any changes over time.\*
- **Management plan** proposing the responsibilities of all collaborating institutions and the implementation timetable.\* \*
- **Evaluation plan** to assess changes in behavior as well as in rates of morbidity and mortality.\*
- A plan for **institutionalizing** the health education methodology.\* \*
- **Budget.**

Figure 7-1 provides an outline of the plan for the ORT program in The Gambia. The plan shows principal campaign themes, a schedule for training, a mass media channel strategy, and message phases.

\* See Chapter 9.

\* \* See Chapter 10.

INTERVENTION PHASES		PHASE I	PHASE II
SEASONS & RELATED HEALTH PROBLEMS		DRY SEASON short, intense bouts of dehydration	WET SEASON prolonged, less intense bouts, interaction with malnutrition
1982 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT			
INTERVENTIONS		DEHYDRATION MALNUTRITION	CORRECT USE OF WATER-SUGAR-SALT- SOLUTION
PRINCIPAL CAMPAIGN THEMES		Danger of dehydration  Special diet for diarrhea  Introduction of water-sugar-salt solution	Mixing and administration of water-sugar-salt solution  Continued feeding during and after diarrhea bouts  Identification of "Red Flag Volunteers"
TRAINING & HEALTH WORKER ACTIVITIES	FOR: NURSE-MIDWIVES DRESSER/DISPENSERS COMMUNITY HEALTH NURSES HEALTH INSPECTORS LEPROSY INSPECTORS	Training for:  150 health center workers 650 "Red Flag Volunteers"  Seminar for physicians	HAPPY BABY LOTTERY  Water-sugar-salt mixing contests held in 72 villages  (1,440 contestants)  (10,000 observers)
DEVELOPMENT OF PRINT MATERIALS	ITEMS: POSTERS FLYERS HEALTH WORKER MANUALS VOLUNTEER RED FLAGS LOTTERY PRIZES	Distribution of:  150 diarrhea management posters;  1500 special diet posters;  650 Red Flags	150,000 water-sugar-salt mixing flyers distributed as lottery tickets
RADIO BROADCASTING	ITEMS: MAGAZINE PROGRAMS MINI PROGRAMS SHORT SPOTS	Broadcasting of 9 radio programs	Broadcasting of 29 lottery radio programs  (30-40 broadcasts per week)
			(continued)

PHASE III	PHASE IV	PHASE V	
DRY SEASON short, intense bouts of dehydration	WET SEASON prolonged, less intense bouts, interaction with malnutrition	DRY SEASON short, intense bouts of dehydration	
1983 NOV DEC JAN FEB MAR APR		1984 MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR	
CORRECT USE (cont.)	FEEDING CAMPAIGN	DIARRHEA PREVENTION	
Signs of dehydration Diarrhea is especially dangerous during dry season Rapid administration of water-sugar-salt solution Clean up feces in family compound	Continue feeding during diarrhea  Feed energy-rich "power foods" when child is recovering from diarrhea  Reinforcement of water-sugar-salt message	Prevention of diarrhea  Protection of wells  Handwashing with soap  Clean up feces in compound	TOTAL OUTPUTS
MID-CAMPAIGN EVALUATION	Retraining activities for 95 health workers	Training for 45 health workers	1000 PERSONNEL TRAINED
DEVELOPMENT OF FEEDING MESSAGES	Distribution of: 1000 feeding posters; 50,000 feeding flyers	Distribution of 1,000 posters (teaching aids on hand washing)	250,000 PRINTED ITEMS DISTRIBUTED
Broadcasting of 14 radio programs	Broadcasting of 8 new radio programs	Broadcasting of 13 radio programs	1,000 RADIO BROADCASTS

## INTERVENTION

Intervention begins with the actual use of communication materials by the program. The materials produced should be of the highest quality possible, given available resources. Materials are distributed to the public via integrated channels selected to achieve maximum reach and frequency. Planners should carefully consider the potential of face-to-face communication, and provide training for those who will interact with consumers.

*(Ecuador)*



## PRODUCTION

roduction of media materials should be as professional as resources allow. Assurances of quality of course go back long before production itself to basic research, design, and product testing. The production step, however, opens new management alternatives which require careful evaluation.

Generally, the unit which manages a public health communication program is not trained in media production. While the health education unit of a ministry, for example, may have on its staff talented graphic artists who can prepare appropriate copy, actual production—of posters, training materials, radio and TV spots—is best left to professionals occupied solely with this work.

Most governments operate their own printing offices. Some have centralized media production units which serve several ministries. Government broadcast institutions should always be involved in the planning and production of materials they will eventually be asked to disseminate.

If resources and government policy permit, the project may decide to contract local design and production firms to increase efficiency and ensure excellence. In the long run, this route may sometimes also be the most economical. While private advertising and media production firms are generally costly, they are often willing to cut prices or contribute services on behalf of programs such as child survival. Competitive bidding on individual projects, to whatever extent possible, improves the likelihood of quality.

In the **distribution** phase of the intervention, a number of the major strategies outlined in Chapter 5 are synchronized, ensuring that schedules are met and that promotional activities mesh with product development, distribution, and training. The groundwork has already been laid. The chief tasks now are coordination and management.

### Media Activities

Strategic **timing of media activities** (TV and radio spots, magazine and newspaper materials, health center handouts, and so forth) remains a challenge throughout the promotion. The administrative group must:



*The heart of the intervention is coordination between the “product strategy” which delivers goods and services, and the “promotion strategy” which creates a demand for them. (Honduras)*

- Produce individual materials in sufficient quantities for distribution to the various broadcast stations, publications, health centers, or other dissemination networks.
- Deliver the material to the media with detailed instructions as to what days and at what times the material is to run or be disseminated.

Coordination of the **media mix**, so that different events (broadcast, print, and interpersonal) reinforce each other, is a logistical challenge which now is carried out according to details projected in the promotional plan. It will be tested by various environmental and political constraints which should have been uncovered, to a great extent, during the process of developmental research.

### Products and Services

The communication program, of course, is not only a media event. Distribution also pertains to **products and services**. The heart of the intervention is coordination between the “product strategy” and the timing of the “promotion strategy” designed to **create a demand** for those health technologies. The success of this timing will become evident in any number of specific ways, for example:

- When a mother goes to a chemist to buy chloroquine for her feverish child, will the pharmacist be ready to tell her anything about how to use it?

- When the radio spot comes on explaining to nonliterate mothers how to interpret the instructional flyer on water-sugar-salt therapy, will the women have flyers to look at?

- When the volunteer mother puts up a sign on her door indicating she has ORS packets, will anyone know what the sign means?

- When a mother goes to a health center to get a last DPT vaccination for her child, will the health center worker refuse to give it because the child is slightly feverish?

In each instance above, elements of both a promotion strategy and a product strategy must be activated

for the caretaker to have access to the health product or service. “Either/or” does not spell success—it spells frustration. The program should ensure that the two strategies are coordinated.

### Interpersonal Support

Often the gap which separates the **promotion** and the **products and services** can be filled by face-to-face communication. Both as promoters creating demand, and as service providers filling demand, people can provide the necessary links between caretakers and health technologies.

This is particularly true in countries where the “mass media” reach only a percentage of the masses. Sometimes those excluded from the impact of broadcast and print media are those most in need of the new information. Sometimes print media can only be dis-

### Getting Help From Children

School children, including high school students, can be enthusiastic communication and distribution agents in a child survival program. If a school system supports a child survival effort, communication planners may find this natural network an invaluable resource.

High school students were an essential link to mothers in Ecuador during the PREMI *jornadas*, or campaigns providing vaccinations, oral rehydration salts, and growth monitoring. In preparation for the third campaign in 1986, they hung over 250,000 informational posters in public facilities. They delivered promotional calendars to mothers' homes. They personally delivered invitations, signed by the First Lady, to mothers. Students, teachers, and volunteers from other organizations passed out over 500,000 flyers announcing the dates of the campaign. Mothers got the message. They brought over 535,000 children to the *jornada*.

In Swaziland, communication planners designed a special series of radio lessons for use in schools with children in grades five through seven. The eight programs were part of the Swaziland Expanded Programme on Immunization, and explained the six killer diseases, the consequences of not being immunized, the immunization ages, and the importance of the immunization card. An accompanying workbook made the learning process

an active one, and gave the children something to take home to share with their parents. The programs also encouraged children to motivate their parents to take siblings for immunizations.



*Children played an active role in the Ecuador PREMI program.*



tributed through extensive mobilization of people, for example by school children. Often, messages and services are given little credibility if they are only broadcast through mass media; credibility is based on verification by local opinion leaders and support groups. Developmental research will help the communication planner determine how best to enlist citizens in the promotion effort.

**Opinion leaders** should always be identified in given geographic areas. Their interest and support should be encouraged, and they should receive specially prepared materials or instructions which will help them inform other community members.

The school system is one of the few organized and respected environments through which a large percentage of the population can be reached. Students represent nearly all economic levels and cultural backgrounds. They are not only potential targets of a public education program; they are also a powerful distribution network for information. Materials distributed in school can be shared with families and friends, multiplying the impact of school-based programs.

Schools are a challenge for the public health educator. Curriculum requirements may be rigid. Teachers are already overburdened with tasks. Some are resistant to the introduction of new ideas and requirements. Materials for the students themselves should be age-specific, simple, colorful, and items which can be taken home and shared. They should be accompanied by a flexible teachers' guide which can be adapted to many settings.

On the other hand, students have been enthusiastic messengers to the community, in some instances, passing out announcements, going door-to-door with invitations and educational materials.

**Community mobilizations** are essential elements of the face-to-face communication strategy of many child survival programs. They are a particularly good venue for involving private sector actors. The community mobilization efforts of several Latin American child survival programs—in Brazil, Colombia, and Ecuador, for example, where thousands of volunteers were recruited as vaccinators and promoters—are especially impressive.

## Training

A major aspect of the intervention is training—training for purposes of distributing educational materials, and training for purposes of providing services and products. The latter is especially critical. Behavior analysis supplies principles for effective

### Two Distribution Networks— Two Training Programs

In 1986 the Government of Indonesia's Health Department began intensification of ORT promotion in West Java, a province of 12 million people. The government's strategy combines commercial distribution of Oralit, the local ORS product, with distribution of a subsidized product through its own community health centers. This two-tiered approach requires two training strategies: one for commercial shopkeepers and one for community volunteers.

Garut Kabupaten, a district which includes 418 villages and a population of 1.6 million people, is the initial launch site. It has a dozen true pharmacies, 200-300 drugstores, and several thousand small shops which sell some medicines. Before the program began, only a fraction of the rural retailers stocked Oralit. The Health Department has encouraged P.T. Pharos, one of Oralit's manufacturers, to expand distribution into villages. A Health Department doctor and a trainer instructed one full-time Pharos salesman and one supervisor in the role of ORT, and gave them charts and flyers to pass out to customers. The salesman reached both wholesalers and retailers by traveling throughout Garut in a van. Within a month, 800 retailers had received the same training and supplies. Clever promotions have helped motivate the retailers.

Many mothers in rural Indonesia, however, cannot afford to purchase ORT products. To meet their needs, the government's goal is to train volunteers, or *kader*, both to pass out ORS and to provide instruction in its preparation. A hierarchical training system is central to this effort. The Health Department first trained 63 West Java Health Department employees to be trainers of trainers. They in turn trained at least five health workers in each *kabupaten*, or regency. Soon afterwards this group trained three workers from each of the 38 health centers in Garut. Those workers then trained volunteers.

Each volunteer receives two days of training. She receives a certificate, an identity badge, instructional flyers, a logo for her home, and instructional wall charts. She also receives an initial supply of Oralit to distribute to local women.

learning strategies in programs such as public health communication where not only knowledge, but performance is a criterion of success.

Briefly, behavior analysis has demonstrated that people learn new behaviors best when:

- They are learning something they are convinced is useful.
- They practice what they are learning to do—the more practice the better.
- They receive feedback on their efforts and are rewarded when they do well.
- Rewards are from several sources and are as immediate as possible.

Further details on learning strategies are provided in the supplemental section at the end of this chapter.

The primary recipients of training are health care providers, followed in some countries by private retailers and volunteers. Although this training is a critical aspect of the overall program, program planners should be aware of the constraints faced by these groups.

### Training for Health Care Providers

Many public health education and communication programs have been criticized for not using rural health workers; an equal number have failed by expecting too much of them. In theory we presume health workers will provide the interpersonal, credible link between external information sources and community receivers; but in practice they frequently cannot.

The absence of facilities from which to operate, poor transportation, often impossible terrain, difficult climate and resultant deterioration of physical communication infrastructure, lack of adequate funds, inadequate professional and managerial resources, the persistence of class, caste, racial, and sometimes sexual differences between agents and clients—all of these impede the service provider system.

There is no easy formula for successful programming of health service providers in a multi-intervention communication program. Budgets vary from country to country, as do political priorities, external or international pressures, and the predominant diseases themselves. However, a program planner can follow at least two simple guidelines to increase chances of service provider participation and impact:

- Do not expect to significantly change existing service provider patterns;



*Face-to-face interaction provides crucial support for the messages conveyed through print or broadcast media. (Ecuador)*

- Provide incentives for higher levels of performance.

### Training for the Private Sector

In commercial private sector programs, distributors are motivated by profit. Most child survival technologies, however, must be dispensed for little or no profit. Even commercial ORS products are ultimately less lucrative than antibiotics or antidiarrhetics. Training and support for distributors will, therefore, have to consider these profit issues. At the same time, distributors, who usually focus on moving a product rather than delivering a service, also need to learn important interpersonal training skills to assist them to teach and support correct usage of the child survival technologies.

### Everyone Wants to be a Winner

Every teacher knows the importance of motivating his or her students. The fact that a particular subject is extraordinarily important, or even that it affects the lives of friends or family, does not in itself make the process of learning easy or interesting or inspiring. Public health educators are as conscious of this need to inspire and motivate as other teachers are.

A seven-week radio course broadcast in Ecuador as part of the PREMI program employed several different types of incentives to keep listeners attentive and involved. The course covered a number of child survival themes, including immunizations, diarrheal disease treatment and control, and growth monitoring—an ambitious amount of material. It was designed for caretakers of children under five in rural and poor urban areas. Programs were broadcast daily and lasted 20 minutes. The first ten minutes of each program consisted of an episode of a soap opera based upon the child survival themes. No doubt some listeners tuned in purely for sake of the continuing drama.

Serious participants in the program could obtain a guidebook from a local auxiliary nurse, to use in conjunction with the radio programs. At the end of the seven weeks, the students could take a series of four tests on the different program themes. Anyone who successfully completed the course received a diploma, as well as an entry ticket to a local lottery. Prizes included 170 scholarships of 10,000 sucres each (U.S. \$45) for the winners' children.

The participating auxiliary nurses each received two days of training in preparation for the programs, and received their own guidebooks. Every nurse who showed

that she registered at least eight mothers and corrected the exams of four successful students was also eligible to enter a separate lottery. Prizes included 170 scholarships of 100,000 sucres each (about U.S. \$445) for further education.

Recently, public health communication programs have become more and more creative in devising incentives for both caretakers and health providers. Finding an appropriate "reward," in terms of both a program's goals and resources, is a challenge. Money isn't always available for lotteries or soap operas. But incentives don't always require grand schemes. As every teacher knows, often a piece of paper recognizing achievement, or just a simple "congratulations," or even a smile can make a student feel like a winner.



*A husband congratulates his graduating wife.*

## SELECTING TEACHING METHODS

A number of principles can be useful in guiding the training program, and in selecting specific training methods.

**Give trainees reasons to care about what they are to learn.** Principles and rationale should precede actual instruction in procedures.

**Provide a model to be observed and imitated.** Teach primarily by example, using lecture only to provide rationale and explanation. Make sure that each trainee actually performs all of the elements of the new technology under supportive supervision.

**Gradually eliminate prompts until the entire performance is carried out by the trainee, unaided.** Initially, the trainee imitates the trainer. Then, the trainer stops demonstrating and provides only verbal prompts. Next, the trainer drops the verbal prompts but provides positive feedback at each step taken independently and executed correctly. Finally, the supervisor provides positive feedback only after the trainee has completed the entire performance independently.



*Rate of execution provides one indication of expertise. Here a health worker practices the steps in administering ORS. (Honduras)*

**Analyze the task into its component parts.** Step-by-step instructions ensure that nothing is overlooked, and make learning much easier than attacking the whole process as a unit.

**Use positive reinforcement and avoid errors.** The task-analysis process should have made each step in the learning process so small that trainee success is virtually assured. Reward each successful approximation with praise.

**Use uniform words, phrases, and formulations throughout.** Make sure that instruction is coordinated internally and that it is consistent with radio messages, posters, written instructions, and any other sources of information about the new technology.

**Make the learning situation as realistic as possible.** Use locally available materials during practice and training sessions.

The training program should be required to produce directly observable behavior in every trainee. This helps provide a measure of training success. Pilot testing of a training session will reveal any gross inadequacies.

## STABILIZING CORRECT PERFORMANCE

Training must be geared to long-term competence and remembrance of skills, not only to short-term performance. Newly learned skills are fragile, somewhat clumsy, and subject to disruption by change of setting. With only a small added effort, a training program can encourage a fluent and stable performance. The trainee must be able to discriminate correct from incorrect execution, to execute the procedures quickly as well as accurately, and have the ability to carry through the procedures outside the training environment. A few guidelines for increasing the chances of long-term skills retention follow.

**Change the performance from the model and determine whether the change is detected.** During initial training, the trainer repeatedly demonstrates the correct practice. Later, the trainer makes a change in the performance which is an error of omission or commission. As the trainee's perception becomes more discrimi-

nating, his or her skills will become more accurate. Understanding and memory of what constitutes accurate performance will also improve.

**Get trainees to execute the behavior at a rate which approximates that of a well-practiced individual.** Rate of execution (e.g. how long it takes to carry out ORT mixing and initial administration) provides one index of expertise. This fluency comes with practice. Training is often terminated while the trainee is still slow and clumsy in his or her execution. An effective training program should continue until the trainee becomes both accurate and fluid in performance of the new behavior.

**Give trainees homework.** Send the new trainees back to their base of operations with an injunction to carry out the new technology as soon as possible. Require a report on this experience. Ensure that as little

time as possible elapses before the trainee puts the newly acquired skills to work in the field. Trainers should tour field sites if possible to provide positive support and aid in solving problems.

## PROVIDING INCENTIVES

Novel training approaches and individualized attention can serve as learning incentives to the trainees. Incentives for carrying out the new technique day after day, month after month, year after year must come from sources extrinsic to the training exercise. However, well-conceived programs incorporate efforts to sensitize the trainees to existing natural contingencies of reinforcement, and to motivate them in the long-term goals of the project.



*The "Happy Baby Lottery" in The Gambia allowed participants to demonstrate in public their ability to mix water-sugar-salt solution correctly. Accurate performance was rewarded with simple prizes. Such campaigns can be effective in motivating first trial of new behaviors.*

## MONITORING AND EVALUATION

Planners must build into their program systematic monitoring systems to detect flaws and oversights in the product, promotion, and communication strategies. Timely discoveries of such flaws and midcourse corrections to refine products and messages are signs of program vitality. A summative evaluation should determine whether the program objectives were actually met. It should also reflect upon how the project worked, for what types of people, and in what circumstances.

*(The Gambia)*



The processes of research, planning, and reflection do not end with the onset of the intervention itself. The **consumer orientation** of the public health communication methodology depends upon a regular flow of information from the intended beneficiaries to program planners throughout and after the intervention. Planning and strategizing based upon this information also continue and periodically affect the course of the intervention. Intermittent analyses of “results” feed back into the program, and eventually into future programs.

**Program monitoring and evaluation** therefore do not really constitute separate “stages” of the intervention. They are rather processes which support it, and which progress systematically throughout the public health communication program.

#### MONITORING

No program, no matter how carefully designed, will proceed exactly according to plan. Constraints will be overlooked or their importance underestimated, characteristics of the audiences will be misunderstood, some trials will proceed better than expected, some hypotheses will pay off, mistakes will be made, and important factors external to the project will change during the intervention. To detect strengths, flaws, oversights, and changes, a program must rely upon an agile but methodical monitoring process.

Monitoring should focus on:

- Distribution systems for products and materials;
- Internal administration—adherence to work schedule and budget;
- Interim tracking of audience levels of knowledge, acceptance, and practices.

Pretesting of materials provided an initial “check” on products and strategies. Once launched, however, these products and strategies can still be refined and improved if they do not seem to be achieving the required results. The sequencing of messages is an especially subtle task which must be continuously monitored for maximum impact. The effectiveness of different media, their level of interaction, and their timing to complement provision of health services, must all be measured intermittently to see whether changes are necessary in content or programming.

Throughout the intervention, planners should refer to the overall program objectives. Although the health status impact of the communication program cannot be measured meaningfully over short periods of time, it is possible to obtain rapid feedback on audience awareness, recognition, comprehension, recall, and practices.

A monitoring strategy should include:

- Regular audits of materials at representative distribution points;
- Focus group discussions to investigate the impact of promotional messages and to detect possible confusion;
- Broadcast monitoring to ensure planned program schedules are met;
- Central location intercepts to monitor tag lines and program slogans and thereby judge program outreach;
- Follow-up evaluation of training provided to health personnel;
- Management reviews to assess the impact of program on distributors and other implementors.

A detailed discussion on monitoring targets and methods is provided in the supplemental section at the end of this chapter.

Monitoring is not an outsider’s test of the implementor’s performance. It is a research process which is expected to reveal new facts, situations, and constraints. Staff should be rewarded for excellence, as well as for identifying problems early and discovering needed changes in the project design.

Midcourse revisions often require as much creativity and planning as did the original design. Even small alterations in products or strategies can have far-reaching effects. These might include:

- Displaying posters in more conspicuous places;
- Broadcasting at more appropriate times;
- Shifting internal workloads or responsibilities;
- Changing prices;
- Improving distribution systems;
- Changing elements of the message strategy;
- Inviting the participation of new institutions.

### Clarifying Messages

Malnutrition is part of the vicious cycle involving diarrhea and dehydration. Children with diarrhea have less appetite and are less able to absorb nutrients through their intestines; in turn, poorly nourished children have lower resistance to infection and may contract diarrhea more frequently. Yet women in many Third World countries mistakenly believe withholding food or giving purges can help cure diarrhea.

A project in The Gambia used radio broadcasts combined with health worker training and simple print materials to teach women a series of messages about both oral rehydration therapy and proper nutrition. The 27-month intervention was divided into five seasonal cycles. Within the first year, approximately half of the women appeared to have learned the formula for mixing sugar-salt solution and had begun using it. But fewer than a third had adopted the "give solid foods" messages. Apparently, it was easier for them to learn new, compli-

cated skills (the ORS recipe) than to change long-held feeding habits.

The second year of the project therefore emphasized the feeding messages. The revised messages differentiated between feeding a child during and after diarrhea. Mothers know that it is difficult to feed their children solid foods when they are ill and have no appetite. The new messages acknowledged this difficulty, and just advised giving small, frequent feedings. The messages also recommended a number of specific local dishes which are energy-rich. In addition they promoted several ingredients which can be added to a child's food to give it higher calories and more protein.

These more reasonable and more precise messages were more effective with mothers. They recognized mothers' current feeding practices and gave practical advice about how they could be changed somewhat to help achieve better results.

## SPECIAL DIET FOR DIARRHOEA

**WHEN YOUR BABY HAS DIARRHOEA, GIVE HIM:**

**1. Sugar & Salt Mixture**



✓ Follow this recipe  
✓ Mix a fresh batch each day  
✓ Protects Baby From Dehydration

**2. Breast Milk**



✓ Continue to breastfeed as usual.  
✓ Protects Baby From Infection

**3. Solid Foods**



✓ Continue foods like boiled rice or rice & groundnut porridge, not watery paps  
✓ Give extra food for 2 days after diarrhoea ends  
✓ Protects Baby From Malnutrition





Helps keep your baby

**STRONG, HEALTHY AND HAPPY**

*Communication planners in The Gambia produced this brightly colored 98 by 138 cm. poster to "position" water-sugar-salt solution as one element in a special diet, thus emphasizing the need for special feeding during diarrhea.*

Planners should keep in mind, however, that frequent dramatic shifts in strategy can cause disruption and misunderstanding throughout the system. Moreover, the impact of messages depends upon consistency and repetition. Changes should be made with a view toward balancing the twin goals of precision and consistency.

### EVALUATION

**M**onitoring measures midprogram outputs. Summative evaluation is the systematic use of research techniques to measure outcomes and overall program effectiveness. It is not enough to know that radio programs were broadcast, products distributed, health workers trained, or even that programs were listened to, understood, and acted upon. The ultimate goal is not people hearing advice but taking it, changing their behavior, and ultimately improving their own or their children's health as a result of that advice.

Summative evaluation examines questions such as: Did the program achieve its explicitly stated goals? What was the magnitude of the program's impact? What were the unexpected outcomes? What parts of the program were most, or least, successful? Although this kind of evaluation is necessarily a reflection from some end-point upon the project as a whole, it is based upon information collected early in the development research stage, and upon intermittent measures of program objectives. A useful evaluation looks at the process of the intervention's effects, as well as measuring its overall impact. In order for a final health status outcome to be achieved, a series of interim steps must be successfully completed. The evaluation of these steps includes investigating whether:

- The target population had access to the channels of communication used by the campaign;
- The messages actually reached the population through those channels;
- The content of the messages was learned and retained by the audience;
- Members of the target audience actually changed their behaviors in response to the campaign;
- The health status of children improved as a result of these changes in behavior.

Chapter 4 showed that a communication program's objectives can be clearly stated as a hierarchy of



*The major research device used in summative evaluations is usually a large-scale survey conducted both before and after the intervention. (Honduras)*

goals, progressing toward actual changes in health practices and in health status. Similarly, the summative evaluation should ideally measure those steps which are logically required to accomplish the program's primary aims.

### Determining Evaluation Questions

The evaluator's challenge is twofold—to determine: 1) exactly what questions must be answered, and 2) the best methods for answering them. The evaluator's first task is to work with project planners and implementors to understand the explicitly stated, measurable objectives of the program. These were established at the program's outset, and most likely defined desired levels of exposure to messages, knowledge of information, first trials of new practices, adoption of behavior, and impact on morbidity and mortality. (See Chapter 4.) In addition, however, the evaluator must understand the various assumptions and expectations upon which the program has been based. He or she must consider such issues as the following:

- The relative importance to project planners of different measurable goals. (Is the primary goal a change in practices? In health status?)

- Characteristics of the target audience and the importance of its different subgroups. (Do program planners have questions about which groups were more likely to learn or change?)
- Expectations regarding how change is to take place in the target audience. (Are people expected to change immediately in response to the intervention, or will change be more gradual? Is change expected to be short-term or permanent?)
- Expectations regarding changes in the health delivery system itself, or in the larger health bureaucracy.

The results of a summative evaluation will usually be important to a number of different audiences. The evaluator must take the needs of these audiences into

consideration. Do those who are important to the program want information to help make decisions on future projects or particular policies? Do they primarily want to know about the impact of the intervention, or about various process indicators? Do they have questions regarding cost effectiveness and administrative efficiency?

Not all significant questions can be answered in a summative evaluation. The evaluation process is one of continuous selection among alternatives, and careful determination of priorities in terms of audiences, funds, and time constraints.

### Selecting Evaluation Strategies

Once a list of appropriate questions has been selected, the evaluator must determine which methods

## Looking a Little Closer, Listening a Little Harder

The immunization delivery service in Ecuador evidenced a continuing problem. Many parents were not returning to clinics to complete the full series of vaccinations for their children—a common occurrence in many countries. Communication and behavior specialists designed a field study in several rural clinics, hoping that direct monitoring of the delivery service would reveal reasons for this situation.

The study focused on five provinces chosen because of their large rural populations and their relatively low immunization rates. It consisted primarily of behavior observations in medical centers where children were brought for immunizations or other purposes. The team members followed the mother (or other adult) and the child through the center to observe events that might account for their failure to return. They used five different instruments for observations and interviews including a treatment observation form, an exit interview (with the mother), a home visit interview, a medical personnel interview, and a staff report. A total of 253 children were followed through treatment; of these, 183 received vaccinations and 70 did not.

The study concluded that mothers at the centers were surprisingly well-informed regarding immunizations, but were sometimes unclear of the correct return date. Many opportunities to vaccinate were lost because

of failures to follow norms. For example, children who were slightly feverish were often not vaccinated; children who returned earlier than the recommended scheduling interval of three months were frequently sent away; often there was no opened vial and the health worker did not want to open a new one.

Half of those mothers who did have their vaccination cards could not interpret the dates written on them indicating when they should return. Over a quarter of the cards had no dates written on them. Health personnel had no systematic way of determining whether mothers had in fact understood the instructions given about when to come back for the next vaccination. Often no instructions were given. Moreover, the interaction between the health workers and the mothers was usually one involving criticism and harsh words, rather than support.

The somewhat unexpected conclusion of the study was that mothers were reasonably motivated to travel the difficult distances to the clinics for immunizations, but that health workers were not following norms and were not sufficiently motivated to provide accurate information and positive reinforcement to mothers. The study was initially focused on mothers' motivations; results indicated that follow-up efforts should really be focused on motivation and education of the health workers.

of data collection and analysis are the most appropriate for seeking answers. No one model, approach, or methodology will be successful in every program.

An effective evaluation strategy should incorporate a number of different studies employing different methodologies. Distinct questions are often best answered through different designs. And distinct designs, which present alternative ways of approaching the same question, can provide particularly strong evidence of program impact if their results are consistent.

The major research device used in summative evaluations of communication interventions is usually a large-scale survey conducted both **before and after** the campaign to measure details regarding a group's knowledge, attitudes, and practices relating to the target health problem. The "after" survey should determine access and exposure to media channels, messages, and so forth. Ideally, these panels of individuals are surveyed several times to measure progress in the intervention. Demographic data (including socioeconomic status, age, literacy, and education) help determine whether changes in practice occur only for certain groups of people. Observational studies are useful to test the validity of **self-reported data**. Other methods that might be used include archival studies (such as health center or death records), and various actual measurements of children's health status.

Often a large sample survey is seen as the only legitimate way to carry out a summative evaluation. However, it is not the only research technique, nor is it necessarily the best one for answering particular questions. Some questions can be measured quickly and easily; others require a more complicated design and data collection over a longer period. For example, various designs might be used to measure the effects of an immunization intervention on behavior. If the program was concerned primarily with whether a campaign led to more children being vaccinated, an examination of clinic records before and after the intervention could give useful results in a relatively short time for a low cost. However, if the program wanted to know if children were receiving all the necessary vaccinations on schedule—and if not, why not—a more useful (but more expensive) approach would be to survey mothers and examine actual vaccination cards.

Getting advice from an evaluator with strong training in research helps avoid spending too much money on a large sample to measure a simple outcome, or conversely, on a research design which is not strong enough to detect the desired changes. In choosing research techniques, the evaluator must se-

lect different reliable research techniques in view of time, cost, and other considerations.

### Evaluation as a Basis for Decision-Making

Summative evaluation is based on **quantitative research**, and determines first of all the extent to which stated, measurable **program objectives** were met. It provides a definitive judgment about the worth of an intervention or interventions. But that is a narrow view unless it is accompanied by an expectation that such a judgment will influence subsequent decisions and projects. Program planners should be aware of the potential of a summative evaluation to serve as more than a series of positive and negative indicators.

The evaluation may be useful as an examination of the project itself, rather than only of the project's impact. It may provide an opportunity to analyze the administrative model, the extent of institutionalization achieved, the cost of the project (both capital and noncapital expenditures, such as the extent of volunteer labor), and so forth. In this case, the evaluation will likely include interviews with the implementing staff members themselves, as well as studies of project administrative and financial records. The results will help planners refine basic program designs.

The evaluation may also provide an understanding of how and why specific interventions were successful, rather than just the degree to which they were. Studies may expose the strong and weak links between different stages of learning. The evaluation may determine for what types of people the project worked, in what circumstances, and for how long. Such insights are invaluable for making decisions about the directions of future interventions, or about fundamental child survival policies.

### Important Research Considerations

When is knowledge turned into effective action? This is one of the most important questions that can be asked of any public health intervention. It is clear that some people adopt new practices sooner than others; some people may never adopt specific new practices. Program planners and implementors benefit from knowing the characteristics of the adopters in a given intervention. Can they be defined as a subclass based on demographic or socioeconomic information? Are there large differences by community and are intercommunity differences related to health and other social service availabilities? These analyses, in

### An Evaluation in The Gambia

Stanford University developed a "process model" for evaluating a diarrheal disease management and nutrition intervention in The Gambia. The model was designed to evaluate a range of complex outcomes, to monitor the process of change over time, and to link specific intervention activities with changes in individuals. It was based on a sequential series of steps expected to take place in order for the campaign to have an effect on health status. These included:

- **Creation of campaign components**— Were products and activities generated using the project's special approach?
- **Potential exposure**— How much exposure to the campaign was possible? Where and to what extent were spots broadcast, flyers distributed, health workers trained?
- **Actual exposure**— Which individuals actually had contact with the campaign, and in what amounts?



*The "process" evaluation determines whether the project was methodologically sound. Here a "Happy Baby Flag" is being pretested.*

- **Knowledge change**— Who learned what, and with what accuracy?
- **Attitude change**— How did audiences react to the information?
- **Trial of advocated behavior**— Who tried the new behavior at least once, and with what accuracy?
- **Adoption of advocated behavior**— To what extent did people adopt the new behavior and incorporate it into their habitual responses?
- **Change in health status**— Were there any improvements in nutritional status, morbidity, or mortality?

The diagram on the next page shows how these steps were divided according to **project** variables and evaluation, and **impact** variables and evaluation. In the most general sense, the variables investigated included: access and exposure to intervention components; knowledge and behavior related to management of diarrheal disease, child nutrition and feeding practices, sanitation and personal hygiene; and nutritional status, morbidity, and mortality.

The evaluation also included a large group of intervening variables—such as demographic information, socioeconomic status, literacy, and wealth—used to refine understanding of the net effects in each category.

The evaluation involved several discrete studies. The largest of these was the longitudinal study, investigating:

- population demographics and intervening variables,
- media use patterns,
- exposure to intervention elements,
- knowledge and attitude measures,
- self reports of practices,
- observational measures of practices,
- self reports of morbidity,
- anthropometric measures.

The study involved repeated administration of several different instruments on subsamples of approximately 800 women in a cohort of 1029 women over a period of a little over two years. Measurement techniques included interviews, direct observation, physical measurement, use of archives, and case finding or tracer studies. To the extent possible, more than one technique was used to measure each variable in order to exclude problems of measurement bias resulting from measurement techniques.

9

<b>A. PROJECT EVALUATION</b> Measurement Methods & Studies: Staff interviews; Project records; Policy maker interviews; Cost effectiveness study; Administrative history					
Process Model:	1. CREATION OF CAMPAIGN COMPONENTS →      2. POTENTIAL EXPOSURE →				
Variables Measured:	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">           Project:            --organization            --administration            --effort            --cost         </td> <td style="width: 50%;"> <table border="0"> <tr> <td style="width: 50%;">               Broadcast:                --amount                --scheduling                  Print Materials:                --distribution             </td> <td style="width: 50%;">               Training:                --Design                --Implementation             </td> </tr> </table> </td> </tr> </table>	Project: --organization --administration --effort --cost	<table border="0"> <tr> <td style="width: 50%;">               Broadcast:                --amount                --scheduling                  Print Materials:                --distribution             </td> <td style="width: 50%;">               Training:                --Design                --Implementation             </td> </tr> </table>	Broadcast: --amount --scheduling  Print Materials: --distribution	Training: --Design --Implementation
Project: --organization --administration --effort --cost	<table border="0"> <tr> <td style="width: 50%;">               Broadcast:                --amount                --scheduling                  Print Materials:                --distribution             </td> <td style="width: 50%;">               Training:                --Design                --Implementation             </td> </tr> </table>	Broadcast: --amount --scheduling  Print Materials: --distribution	Training: --Design --Implementation		
Broadcast: --amount --scheduling  Print Materials: --distribution	Training: --Design --Implementation				
Treatment Variables					
<b>B. IMPACT EVALUATION</b> Measurement Methods & Studies Measurement Methods & Studies Panel study using interviews, observations, anthropometric measurements; Pre- and post-study, using interviews and observations; Mortality study, using interviews; Health worker study, using interviews					
Process Model	3. ACTUAL EXPOSURE →      4. KNOWLEDGE CHANGE →      5. ATTITUDE CHANGE →				
Variables Measured:	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">           Media Use:            Component-specific exposure;            Access to and use of health facilities;            Information seeking and advice sources.         </td> <td style="width: 50%;">           Prior status and changes in traditional beliefs;            Message recall and recognition regarding diarrheal disease, child nutrition, water supply, sanitation, food, and personal hygiene.         </td> </tr> </table>	Media Use: Component-specific exposure; Access to and use of health facilities; Information seeking and advice sources.	Prior status and changes in traditional beliefs; Message recall and recognition regarding diarrheal disease, child nutrition, water supply, sanitation, food, and personal hygiene.		
Media Use: Component-specific exposure; Access to and use of health facilities; Information seeking and advice sources.	Prior status and changes in traditional beliefs; Message recall and recognition regarding diarrheal disease, child nutrition, water supply, sanitation, food, and personal hygiene.				
Cognitive and Attitudinal Outcomes					
Process Model:	6. TRIAL OF NEW BEHAVIOR →      7. ADOPTION OF NEW BEHAVIOR →      8. CHANGE IN HEALTH STATUS →				
Variables Measured:	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">           Prior status and changes in responses to questions regarding diarrhea, feeding, and breastfeeding; domestic water and waste disposal; personal hygiene; use of health care resources.         </td> <td style="width: 50%;">           Morbidity            Mortality            Nutritional status         </td> </tr> </table>	Prior status and changes in responses to questions regarding diarrhea, feeding, and breastfeeding; domestic water and waste disposal; personal hygiene; use of health care resources.	Morbidity Mortality Nutritional status		
Prior status and changes in responses to questions regarding diarrhea, feeding, and breastfeeding; domestic water and waste disposal; personal hygiene; use of health care resources.	Morbidity Mortality Nutritional status				
	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Behavioral Outcomes</td> <td style="width: 50%;">Health Status Outcomes</td> </tr> </table>	Behavioral Outcomes	Health Status Outcomes		
Behavioral Outcomes	Health Status Outcomes				

turn, touch on questions which are highly significant for all public health programs. Some of these might be:

- If knowledge is derived from multiple sources, both personal and mediated, does that make the transition to action more probable than when it is derived from a single source?
- Once knowledge is gained do people adopt new health practices regardless of whether only a few others or most others in the community have adopted the new practice?
- Once knowledge is gained, how long do people retain that knowledge, and is there a pattern involved in learning and forgetting?

These questions indicate the potential depth of the evaluation process. Not every program has the resources to address such issues. A trained researcher, however, may help program planners understand the value of data already being collected, and possibilities for further analysis.



*The most critical measure of an intervention is an assessment of its impact on actual health practices. (Philippines)*

## DIFFICULT CHOICES

Some programs may have sufficient resources to perform both effective midcourse monitoring and summative evaluation. Most programs will have to struggle with the dilemma of too few resources for anything but minimal evaluation. In these situations, the most critical measure is an assessment of the impact of the intervention on health practices among the target audience.

Morbidity and mortality measurements are necessary to determine health status impact. Health outcome research, however, is difficult and expensive. Determining disease-specific morbidity and mortality rates requires large samples. Determining changes in these rates and attributing them to communication efforts is even more complex. Health communication programs in many countries may have to settle for evaluations measuring changes in knowledge and behavior. If the efficacy of new health practices or technologies has been demonstrated through clinical trials, however, communication planners may reasonably assume that their adoption on a large scale will lead to significant improvements in health status.

## RADIO BROADCASTING MONITORING

### Feedback needs for radio broadcasting include:

- Assurance that radio messages are on the air at designated times;
- Assurance that target audiences are listening to them;
- Assurance that messages are being understood and effecting changes in knowledge, attitude, and behavior;
- Possible evidence of message fatigue and suggestions for needed changes in messages;
- Evidence of proper relationships between face-to-face and media interventions;
- Identification of potential logistic problems concerning the delivery of materials.

### Monitoring activities include:

- Weekly visits to radio stations to ensure that messages are on the air and station managers are following the radio programming schedules.



*Effective monitoring of radio broadcasting requires spot checks with target audiences and periodic meetings with radio station managers. (Honduras)*

- Periodic meetings with radio station managers to inform them of project progress and how components are functioning. (The knowledge that messages are taking effect can motivate them to continue with broadcasting on schedule.)

- Weekly visits by monitors to rural villages to assess whether target audiences are listening to the radio programs.

- Spot checking with target audiences to elicit their opinions about radio messages, as well as other project materials.

- Monitoring of radio broadcasts by "monitor listeners" to ensure that messages are being aired on the radio. (One possibility is to have selected hospital patients or personnel listen for parts of a day to certain radio stations.)

## MATERIALS MONITORING

### Feedback needs for educational and promotional materials include:

- Assurance that support materials are distributed to proper channels;
- Assurance that instructional materials are used by target audiences in listening groups, schools, and other places;
- Assurance that materials are being understood;
- Assurance that the composition of messages and materials makes sense to the target audience.

### Monitoring activities include:

- Monitoring of the distribution system of motivational materials, at special check points such as clinics, hospitals, schools, stores, small industries, radio listening groups, radio forums, facilitator groups, and others. (This might involve making weekly spot checks and reporting back to the project team about the number and availability of the motivational materials. Monitors should have a detailed checklist for this assessment.)

- Informal discussions with target audiences to find out their opinions of the materials.

- Monitoring of availability and distribution of products by spot-checking weekly to make sure products are available.
- Monitoring of product purchasing to determine whether the price of products is acceptable.
- Monitoring the motivational materials mix to ensure that target audiences perceive the materials as supporting each other.

### **HEALTH WORKER/CHANGE AGENT MONITORING**

Feedback needs for health worker/change agent programs include:

- Information from health worker/change agents about target audience interest in health education themes;
- Number of listening groups, clubs, radio forums, facilitator groups, and other groups formed to discuss health education themes;
- Types of assistance health workers require to carry out project objectives.

**Monitoring activities include:**

- Regular visits to listening groups and other organized meetings and discussions with members of the target audience and health workers/change agents;

- Request for and receipt of letters from the target audience and health workers about project components;
- Tape-recorded feedback from listening groups (edited statements can be broadcast on the radio stations);
- Observations of training sessions, including assessments of trainers' quality of work and trainees' learning patterns.
- Monthly health worker/change agent meetings with project staff members to discuss problems, issues, and programming for the coming month.

### **MANAGEMENT MONITORING**

Feedback needs for management include:

- Evidence that program management is functioning according to schedule;
- Assurances of coordination with ministry of health officials, international donors, and other responsible organizations.

**Monitoring activities include:**

- Weekly staff meetings to discuss all components of the project;
- Monthly reports by staff members;
- Annual reports, semiannual reports, and monthly reports of activities.

## MANAGING AND INSTITUTIONALIZING THE PROGRAM

Effective program management is based upon cooperation among professionals in a variety of fields to achieve shared goals. It requires coordination of efforts by a number of different public, private, and international organizations. Varying management models will be appropriate, depending upon local needs. No single approach or model will assure the long-term continuance of a program or the institutionalization of an effective methodology within the larger health bureaucracy. However, certain guidelines can increase the chances that the public health communication methodology will affect the overall health delivery strategy.

*(Honduras)*



# 10

## MANAGEMENT BY COOPERATION

A child survival communication program is by nature a cooperative venture. Even if the Ministry of Health has primary responsibility for a communication program, the program's success will depend upon the involvement, interest, and support of other ministries, health professionals, auxiliaries, private firms, the media, international donors, public officials, popular opinion leaders, and volunteers. The necessity of cooperating with these various groups and of expanding the circle as wide as possible is the most important management challenge.

Chapter 7 discussed the advantages of a "learning group" approach to the successful management of a public health communication program, using the operational plan as a basis for planning and consensus-building. The approach is based upon a clear line of administrative authority for project-related activities within the implementing agencies. However, it creates an atmosphere of shared commitment and mutual respect among experts from different areas. The "manager" is only one of several experts. Strategies are developed in consultation with specialists directly associated with the project as well as from other organizations and firms. The approach encourages interministerial and interinstitutional service provider contact to develop gradually. It invites personnel at all levels to participate in the program.

The learning group approach has implications not only for managing a single communication effort, but for a long-term impact upon the public health education infrastructure—upon the "institutionalization" of a communication methodology.

### KEY SKILLS REQUIRED

The methodology presented in this manual is straightforward but complex, and relies on strong skills in diverse areas. A priority for any communication program is to enhance these skills among participating staff members, to hire appropriately trained staff if possible, or to provide for certain kinds of skills through outside expertise, if necessary. Four main types of skills are needed to conduct effective public health communication:

**Research**—Competent staff must be able to conduct developmental research, materials pretesting, and program monitoring. They should be trained in



*An atmosphere of shared commitment and respect is the first step in institutionalizing a new public health communication methodology. (Honduras)*

certain basic research skills, such as pretesting of educational materials. None of these activities necessarily requires sophisticated quantitative research abilities. They do, however, require a basic understanding of qualitative research design, training in questionnaire development, and knowledge of special techniques such as how to conduct focus group discussions.

**Communication Planning**—Skills from the fields of instructional design and mass communication are essential. Planners must be able to use research results to formulate appropriate behavioral objectives and educational messages and to design effective communication strategies. They must have an understanding of how different communication channels may be integrated to achieve maximum message impact. And they must be able to write a cogent operational plan which provides a realistic scheduling of project activities.

**Design and production**—Various professional resources and skills are needed to produce radio and TV programs, training kits and manuals, posters, flyers, logos, public relations materials, and so forth. It is important to strive for the highest level of professionalism and innovative design available within existing constraints and to balance creativity with careful pretesting so that materials are appropriate and powerful.

**Management**—A health communication program manager must be in charge of the overall program. This person should have a broad understanding of communication strategies and planning procedures

and the principles of behavior change. He or she should be skilled in mobilizing resources, supervising staff, and monitoring program performance in order to sustain high performance throughout the life of the project. The manager should also be able to articulate program issues and problems to various constituencies.

## THE MINISTRY OF HEALTH ACTIVITIES

The basic management challenge for health communication programs in developing countries is to identify and mobilize individuals with the skills listed above despite severe budget limitations. In many ministries of health these skills are scattered among different programs. The health education unit—a logical resource for communication efforts—rarely has sufficient expertise among its staff. Moreover, health education activities continue to be undervalued and underfunded. If the communication program is primarily a ministry of health operation, several management strategies should be considered:

- At a minimum, members of the health education unit or other responsible group should be trained and involved in health communication planning: to set objectives and priorities, write operational plans, formulate messages, and coordinate media efforts.
- Health education staff should receive training in certain basic research tasks, such as pretesting of educational materials. Inservice workshops can build this competency. Statistics and epidemiology units usually employ personnel trained in research design and data collection. Sometimes faculty from the departments of sociology or anthropology at local colleges and universities are able to participate in research projects. If funding permits, local market research firms should be considered as well.
- It is often not appropriate to actually produce media materials within the health education unit. While such a unit may have on its staff talented graphic artists who can prepare appropriate copy, actual production—of posters, training materials, radio and TV spots—is best left to professionals occupied solely with this work. They may be employed in other government institutions, such as central printing or media production units, or in private sector firms.
- It is important for the manager of a public health communication program to have clout and

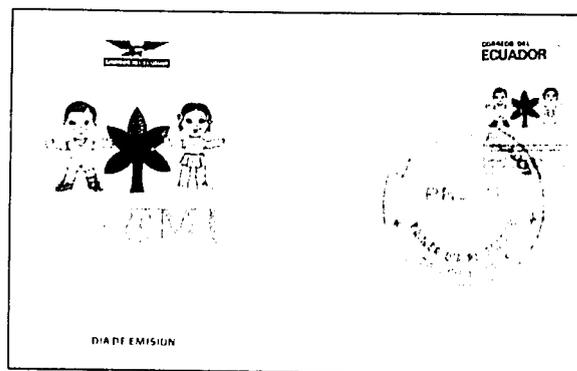
### STRATEGY (ACTION)

#### A Little Help From Almost Everyone

In 1985 the Government of Ecuador created the country's first National Child Survival Program. PREMI, or the Plan to Reduce Childhood Disease and Mortality (Plan de Reduccion de Enfermedad y Muerte Infantil) incorporates national campaign days, or *jornadas*, into its delivery strategy. Although PREMI is managed by the Ministry of Health and INNFA (National Institute for the Child and the Family) and is under the directorship of the First Lady, its success has been the result of contributions from nearly everyone.

Other organizations most directly involved in PREMI included the Ministry of Education, the Armed Forces, Social Security, Rural Social Security Program, Ministry of Social Welfare, the Faculties of Medicine, the Ministry of Agriculture, all the provincial governors, the Ecuadorian Petroleum Corporation, TEXACO, the Red Cross, Civil Defense, and INNFA Affiliates. Many other institutions donated time or assistance. What did all these organizations do? The Ecuadorian Radio Association donated broadcast time for educational spots. The Ministry of Education mobilized school children to help distribute materials. Literacy volunteers and rural teachers visited rural communities and provide information about the campaign day. The Armed Forces helped with the massive logistical challenges. International donors contributed funds and ORS packets.

The spirit was catching. If the initial idea had been to mobilize mothers, the result was a true national mobilization, from the top of the government throughout its many bureaucracies, down to the average schoolchild.



Mothers in Ecuador received individual invitations.

professional standing. While it is logical for the program to be managed by the chief of a health education unit, direction from a higher level can be strategically helpful. A good choice is sometimes a senior program manager working out of the director of health's office.

- The more diffused the skill and resource base, the more essential it is to establish coordinating mechanisms—intra- and interministerial committees—to assure that planning and implementation of different activities are on schedule and coordinated with each other. Visual and verbal feedback on project performance and progress to these diverse groups clarifies goals and reinforces effective practices.

## OTHER MANAGEMENT MODELS

Some of the most promising possibilities for rapidly expanding the coverage and impact of child survival efforts lie in the creative mixes of public and private sector resources. There are several alternatives:

**The ministry of health contracts private sector experts to assure the quality of communication strategies and materials.** An advertising agency can contribute significantly to the professionalism of designs, market research, testing, and media placement. Market research firms are reliable partners for market research and product/materials testing. Air time on private broadcast stations can provide the reach and frequency necessary for message impact. Private voluntary organizations can assist in materials design and testing or in the design and implementation of community training. Advertisements in private newspapers and other publications add status to the program, particularly in the eyes of professionals and decision-makers.

**Private sector firms fund and/or support selected ministry of health activities.** In many countries pharmaceutical and other health-related companies are willing to fund the printing of graphic materials if their logos are included on the copy. Independent media coverage can be invaluable. Newspaper reports, magazine editors, and so forth should be provided with weekly information so that they can promote child survival activities. Leading radio and television personalities are often willing to become spokespersons for the program, and to include child survival messages in their own shows. Commercial firms often allow health-related graphics and logos to be printed on their products. Various private

### Public/Private Sector Cooperation

An example from Peru illustrates how the public and private sectors can work together—and learn from one another—in conducting public health communication.

In 1984 Peru created a new model of health communication program management. The Ministry of Health, a private market research firm (Carlos Michelson), and an advertising agency (Forum) joined forces to plan a multiphased campaign aimed at encouraging immunizations, family planning, and ORT.

The Ministry of Health was introduced to professional marketing and advertising competency, learning how to include contemporary communication outreach in its health education activities. The ad firm was introduced to more complex and extensive client demands than they usually encountered with their beer and soda clients. The marketing firm developed an improved orientation to the study of rural audiences.

Throughout this process the Ministry became increasingly impressed with the creativity and production quality of the ad agency. The ad agency became more respectful of the technical expertise of the Ministry and sensitive to the differences between selling a product and changing health behaviors.

However, both parties also became increasingly aware of the need to ensure that the Ministry service delivery system was able to meet the demand created by the ad agency campaign. As campaign launch neared, the Ministry assessed the capacity of the system to meet product and service demand in the three programs. Due to this assessment, the Ministry decided initially to limit the campaign to targeted areas, while strengthening the service delivery in the rest of the country.

sector distribution agents can distribute promotional materials in areas the ministry of health system cannot reach. Private voluntary organizations (PVOs) can train their village agents with the same educational materials available through the ministry. They are sometimes willing to fund printing of graphic materials to be distributed through their own networks.

**Complementary marketing:** Public and private sectors market different products to different market segments as part of a unified strategy. It is often appropriate for the ministry of health to try to reach poorer populations with products and services at little or no cost. The commercial sector sells a more expensive but similar product to a more affluent segment of the market. The private sector follows the ministry's policies and behavioral strategy, but their creative strategy and media mix reflect the differences inherent in the different target audiences and products.

**Joint marketing:** Both public and private sectors are engaged in promoting the same product or products in their respective markets. The same product is available through the ministry system and in local stores. The ministry defines policies and behavioral strategies while the private sector takes on the major expense of mass media promotion. Experiences in several countries trying joint marketing of child survival products have demonstrated that many people are willing to pay for a product they could have received free of charge from the ministry of health, if it is readily available and priced fairly in relation to the alternate "cost" of obtaining services through the ministry of health.

**Mass Mobilizations:** Key ministries, the military, religious groups, PVOs, and other outreach systems act together to provide immunizations and sometimes ORS packets on specified days. Intersectoral working groups generally organize these campaigns. The ministry of health directs development of strategies and educational materials and these are distributed throughout the various other institutions. Mass mobilizations have proven to be powerful mechanisms when a program is fully prepared to respond to new demands for products and services. They are also effective tools for marketing the cause of child survival itself to decision-makers. Mobilizations involving multiple ministries can provide strong outreach, but also pose formidable management and coordination problems for the ministry of health. The chief question regarding mobilizations is how best to incorporate the energy and awareness generated back into the permanent programs and long-term goals of the health system. Mobilizations cannot be replacements for consistent efforts and programs—they must rather help reinforce them.

The management model appropriate in any given program will be dependent upon a variety of factors. For example, a combined public sector/private sector

model may be necessary for a breastfeeding communication component in a country where the private sector has effectively promoted infant formula. An interministerial approach may be appropriate for a mobilization concentrating on immunizations. The coordinated use of available groups and their resources broadens the base of support for the program and promotes institutionalization of the public health communication methodology.

## INSTITUTIONALIZATION

Successful promotional efforts are only part of the public health communication challenge. The other major question is, "Will the program survive?" The success of public health communication in reaching mothers, training health workers, and directing media will be little more than another interesting experiment unless the issue of institutionalization is addressed. **Institutionalizing a public health communication methodology** means leaving more than posters and radio spots, and promising more than two years of reduced infant mortality after the formal project has concluded. It means that the larger health bureaucracy—perhaps the ministry of health—modifies and incorporates an effective level of the communication process as part of its overall health delivery strategy.

In developing countries where complex bureaucracies, low budgets, overburdened staffs, and ever-changing political priorities are commonplace, nothing can really assure the continuance of an effective program—but certain guidelines can help increase its chances:

- **Funding**— Try to assure that initial funding and assistance is available for at least two years. Three-and-a-half years is more realistic. Short-term assistance, except in rare cases, will not amount to sufficient support to lay a basis for institutionalization.
- **Consensus**— Begin the process of institutionalization at the program's outset. Familiarize staff and decision-makers with the concept. Build it into letters of agreement. Be constantly on the lookout for opportunities to strengthen the goals of institutionalization.
- **Skills training and post descriptions**— Provide or promote high quality structured training in key skill areas. Make sure that post descriptions are changed to reflect responsibilities for performance in their specific areas. Train more people than necessary

at all levels. This will help lessen the effects of frequent staff turnover. Today's director of EPI may very likely be tomorrow's health education director—or vice versa.

- **Change procedures and norms**— Training alone is not institutionalization. The expected procedures and norms of a post or office also have to be changed if health communication strategies are to survive. However, this is achieved by working within rather than challenging a system.

- **Regionalization**— Encourage participation of local or regional policy makers so that they can learn from the project and replicate it with minimal outside expertise. The local agency should be encouraged to articulate design and take the lead in project implementation.

- **Build an interdisciplinary constituency**— Consult with people from different disciplines and backgrounds (including physicians, marketing professionals, auxiliary health personnel, commercial retailers, and communication specialists) throughout the life of the project.

- **Look for new institutional linkages**— Find sources of useful skills in the private sector and emphasize advantageous relationships. These investments can have long-term effects.

- **Foster an atmosphere of success**— Establish concrete intermediate goals that are obtainable over short periods of time. Give periodic feedback to staff (such as charts of program progress) so that the entire group can see the effects of their work on program performance. Provide positive reinforcement to pro-

### When "Success" is Only Half the Battle

An example of the successful institutionalization of a public health communication methodology in Honduras illustrates the complexity of this process.

When PROCOSMI I, or Proyecto de Comunicaciones Masivas, was initiated in 1980 to support a new ORT product, the Honduran Ministry of Health had minimal resources to devote to public health communication. The Education Division consisted of three people (one physician and two health educators) and the Audio Visual Unit consisted of three people. Funds were scarce. However, PROCOSMI brought in its own budget and staff. By 1983, the program had achieved impressive results: after its intensive use of print, radio, and interpersonal communication channels, 60 percent of rural women interviewed reported using LITROSOL, the government's new ORS product. Mortality associated with diarrhea in children under five had dropped from 40 percent to 24 percent in the target region.

This success was extremely important to the Ministry of Health. At the end of PROCOSMI I, the project staff was incorporated with that of the Education Division and the Audio Visual Unit, to create a single health communication office reporting to the director general. Two new positions, radio and graphics specialists, were added

to the team. The project's methodology was refined and applied to a broad new range of interventions including TB and malaria prevention, immunizations, and family planning. The unit began to function as a minimarketing agency within the Ministry of Health, relating to the technical offices as though they were direct clients.

But this was not the end of the institutionalization effort. Some of the staff in the newly-formed unit had felt left out of the previous "success story." Some felt their office had been "invaded" by new personnel. Some were not completely committed to the methodology employed under PROCOSMI I. The new program manager perceived that no methodology would produce results if the staff, and those of the technical departments who were to be clients, did not feel invested in the program goals and methodology. He adopted a management approach which involved systematic sharing of information and group planning and strategizing sessions with his staff and client groups. He took the view that a specific operational plan had to be agreed upon by this group before it was "sold" to the Ministry of Health. This "community learning group" emphasis has become an important key to the methodology's long-term institutionalization and long-term "success."

gram participants whenever possible. Opportunities for further training or for expanded responsibilities can be appropriate rewards. Use other principles of behavior analysis, such as behavior modeling and repeated practice, to encourage staff.

- **Learn to work the system**— Look at policies, procedures, and norms. Be an expert on how to get a budget approved. Learn what motivates those individuals and organizations whose opinions and actions are crucial to program success. Keep them informed and involved.

- **Finally and most important, focus on obtaining measurable results**— One of the most effective variables in long-term program survival is a program's ability to show that it works. Be able to show the minister of health how immunization coverage and ORT utilization rates have increased, thanks to public health communication.

### MEASURING INSTITUTIONAL SUCCESS

The following measures of institutional success should be carefully monitored throughout the program:

- The number of personnel who have been trained through inservice workshops or more formal processes, particularly in the areas of:

- Social marketing

- Behavior analysis

- Developmental research

- Materials pretesting

- Program planning

- Program management

- Materials pretesting

- The existence of plans which reflect the public health communication methodology;

- Annual budgeting for public health communication activities;

- The extension of the public health communication strategy from one program to others;

- The strengthening or restructuring of health education units or activities along lines suggested by the methodology—for example divisions of research, design, planning, and management;

- The emergence of post descriptions which reflect routine performance of the skills and procedures required in public health communication;

- Changes in administrative norms and procedures which:

- **Provide incentives for detecting and correcting program policies and methods;**

- **Involve personnel in research, in creating messages, and in program management;**

- **Link public and private sector institutions;**

- **Promote health communication topics;**

- **Support message continuity over time;**

- **Support adequate financing of developmental research and media efforts;**

- **Establish or increase health education unit budgets;**

- **Support training in health communication for personnel.**

The most reliable indication that a program will have a long-term effect upon the health bureaucracy is evident through the same measure used to test its short-term success: a quantifiable impact on health practices, and ultimately, upon child morbidity and mortality. There is no advertisement like success.

## ANNEX A

### CASE STUDIES

NATIONAL ORT COMMUNICATION CAMPAIGN (Egypt)	90
MARKETING IODIZED SALT (Pakistan)	91
MASS MEDIA AND HEALTH PRACTICES (Honduras)	92
HAPPY BABY LOTTERY (The Gambia)	94
MANIC HEALTH (Tanzania)	95
NUTRITION ADVERTISING CAMPAIGN (Tunisia)	96

The six case studies included here are excerpted, with permission, from *Project Profiles*, an occasional paper series produced by the Clearinghouse on Development Communication. The Clearinghouse is a project conducted by the Academy for Educational Development for the Agency for International Development. Further information about any of these case studies may be obtained from the Clearinghouse, The Academy's office in Washington, DC.



## NATIONAL ORT COMMUNICATION CAMPAIGN

<b>Country:</b>	Egypt
<b>Target Audience:</b>	Egyptian mothers with children under three, doctors, and health personnel
<b>Objectives:</b>	To educate the target audience about diarrheal disease, to promote the use of Oral Rehydration Therapy (ORT), and to lower the child mortality rate
<b>Media:</b>	Television, radio, print, film, slide shows
<b>Donors/Sponsors:</b>	Government of the Arab Republic of Egypt; U.S. Agency for International Development
<b>Duration:</b>	1982-1987
<b>Contact:</b>	Executive Director, National Control of Diarrheal Diseases Project, 20A Gamal El Din Abul Mahassen Street, Garden City, Cairo, Egypt

Over 60 percent of deaths of Egyptian children under the age of three are caused by diarrheal disease. The majority of these deaths are due to diarrheal dehydration and could be prevented by rehydration therapy. In late 1982, a five-year project began, with a goal of reducing child mortality due to diarrhea by at least 25 percent. The overall program, the National Control of Diarrheal Disease Project (NCDDP), has six components: 1) production, packaging, and distribution of oral rehydration salts (ORS); 2) training in oral rehydration therapy (ORT) for physicians, pharmacists, nurses, and mothers; 3) clinical, social, and economic research related to ORT; 4) the use of television, radio, and other public media to promote the project nationally; 5) integration into the primary health care network; and 6) evaluation. A communication campaign strategy, using primarily television advertisements, was designed to educate the target audience about the dangers of diarrhea and the benefits of oral rehydration therapy.

Precampaign data was compiled to determine the most effective and appropriate channels for the ORT messages. Specifically, research and testing were conducted on the campaign logo, a name for the rehydration solution, materials design, and message design.

Four logo designs were selected from among ten submitted by local artists and advertising agencies. These were then tested in focus groups and in brief, public interviews to determine how people interpreted the logos. Project planners wanted to know what message the logos conveyed, if the logos contained anything objectionable, and which logos were most and least appealing. The most popular design was then tested again in other target groups and modified based on the test findings.

Naming the rehydration solution also required considerable field research. Mothers seemed to favor both emotive and practical names describing the purpose of the solution, while doctors and pharmacists insisted on a precise prescriptive name. The name chosen, *The Solution for the Management of Dehydration*, is descriptive and scientific.

Because surveys found that over two-thirds of Egyptians have access to television (90 percent in urban areas), project planners assigned TV a central role in the dissemination of educational messages about diarrheal disease. Producing precise and convincing TV advertisements (by June 1986 there had been four campaigns) has required diarrhea experts and doctors to check the medical accuracy of the storyboards' ORT message and anthropologists to test the boards' effectiveness among the target audience. Revisions were made and filming of the commercials proceeded with a well-known personality delivering the message as a testimonial. The first few commercials featured a comedian known to children as "Uncle Fouad"; but subsequent ads have used a motherly actress in an adviser/counselor role, who has been better received by mothers, doctors, and health personnel alike.

### Results

Between early 1983 and 1984, knowledge of dehydration rose from 32 percent to 90 percent; knowledge of ORS rose from 1.5 percent to 96 percent. Ninety-eight percent of all Egyptian pharmacies now have ORS packets available, and it is now the leading sale item (in volume) of all diarrhea-related drugs in a survey of 300 pharmacists nationwide. Careful documentation shows that mass media made a major contribution to the increased use of ORS from one to nearly 70 percent. There has been approximately a 50 percent drop in diarrhea-related deaths nationwide. The success of NCDDP in Egypt indicates that mass media can help change behavior through a proper campaign strategy; but mass media messages must be

integrated with availability of ORS, training of health workers, and constant monitoring and feedback.

### Of Note

- Several lessons have been learned from the campaign. 1) A social marketing program must first familiarize government officials with the meaning and importance of "social marketing," and social marketers need to understand the politics of government decision-making in order to be convincing. 2) Leading pediatricians' input to the project should be emphasized with regard to the technical aspects of the campaign message. 3) Extensive formative and summative evaluation of campaign material has contributed to this project's continuing effectiveness.

- A project newsletter publishes information for doctors about clinical care, training of mothers, social attitudes and practices, delivery systems, and nutrition. It also includes original research conducted by physicians in Egypt, much of which is promoted by the project. Training films, print materials, and slides have been produced for health professionals and mothers.

- While conducting target audience research, anthropologists were asked so many health questions by mothers that a series of 30 sound and TV spots called "Mothers Ask Doctors" was produced based on these questions.



*Focus group discussions with caretakers in Egypt led to the development of the ORS logo.*

## MARKETING IODIZED SALT

<b>Country:</b>	Pakistan
<b>Target Audience:</b>	Population of Pakistan
<b>Objective:</b>	To promote the use of iodized salt as a preventive measure against goiter
<b>Media:</b>	Radio, interpersonal communication, print, audiovisual aids
<b>Donors/Sponsors:</b>	Government of Pakistan, UNICEF
<b>Duration:</b>	1981-1982
<b>Contact:</b>	David Mason, Chief, Communication and Information Service (CIS), UNICEF, 58 Khayaban-e-Iqbal, F-7/2, P. O. Box 1063, Islamabad, Pakistan

When begun in the late 1970s, the Pakistani government's efforts to promote the use of iodized salt as part of a health campaign to prevent further occurrence of goiter (an enlargement of the thyroid gland producing swelling in the neck), were achieving few results. Since the prevalence of goiter ranges between 70 percent and 90 percent in some parts of the country, the government was determined to improve the campaign, and turned to the Communication and Information Service (CIS) of UNICEF in Islamabad for assistance. CIS first evaluated the ongoing campaign and then offered suggestions based on its findings. Preliminary investigations revealed that much of the project's failure was the result of poor communication. For example, in areas of almost total illiteracy, the campaign relied entirely on printed materials. In addition, much of the promotional material was misleading, unsuitable, and uninformative.

Redesigning the campaign, UNICEF set out to project a more positive image of the salt, design a package that would be easily recognized, sell the salt as food, not medicine, and use radio as the main promotion channel. The new strategy was to combine education with entertainment. Since the Pakistanis are staunch Moslems, it was decided to use Koranic verses to carry the messages, along with popular dramas and folk stories (the most popular form of enter-



tainment) and using visual media to back an initial radio campaign.

The promotional materials included: two trilingual (Urdu, Pushto, and Chitrali) calendars, one carrying a Koranic inscription, the other the packet design; a cartoon booklet for children; a question-and-answer booklet for opinion leaders (religious leaders, school teachers, and so forth); hanging mobiles for retail outlets; self-adhesive stickers in every packet, 16 of which make up a shortened version of the cartoon story; and posters repeating one of the calendar designs. The decision to include the religious texts in the advertisements had a positive effect. The Koranic verses lent the posters a sanctity and prestige which kept people from taking them down. (During the first campaign, CIS found that most of the posters had been removed.) The campaign also won the support of the Imams (Moslem priests) with this gesture, and the Imams now actively spread the message to use Peshawari salt.

Four radio spots were produced in dramatic form. They were pretested, and the two most easily understood were put on the air. The spots, 30 and 15 seconds long, were recorded in the Pushto and Chitrali languages. The Pushto spots are broadcast during the two most popular programs, "Hujra," and the agricultural program for rural audiences, during peak listening hours. The Chitrali spots are on the air during the Chitrali program in the evening.

## Results

The first phase of the field evaluation produced promising results. Seventy percent of the people had heard the radio messages. Eighty percent of those who had listened to the radio could recall at least three basic messages: 1) use Peshawari salt; 2) it is good for one's health; and 3) it prevents goiter. In addition, 60 percent of the radio listeners reported discussion after the program.

The print material sparked interest through the booklets for school children, through the posters and mobiles at the stores, and through the Koranic calendars. On the advice of their peers, people gave the iodized salt a trial. Sales rose rapidly during the first few months of the campaign.

## Of Note

- All the materials, including the print and the audiovisual aids and the radio messages, were pretested by UNICEF before they were fully incorporated in the campaign.

- The name given to the salt, Peshawari, (after the provincial capital) is acceptable to the people of both the valleys of Swat and Chitral (where goiter is most prevalent), historic rivals.

- Some of the world's largest salt deposits are located in Punjab in Pakistan.

- UNICEF also provided assistance for Pakistan's first crushing and iodizing salt plants.

## MASS MEDIA AND HEALTH PRACTICES

<b>Country:</b>	Honduras
<b>Target Audience:</b>	Rural mothers and grandmothers of children under the age of five, and primary health care workers
<b>Objectives:</b>	To strengthen and promote health education through the systematic application of mass communication; to contribute significantly toward the prevention and treatment of acute infant diarrhea in isolated rural areas
<b>Media:</b>	Radio, print materials, interpersonal communication
<b>Donors/Sponsors:</b>	Ministry of Health, Honduras; U.S. Agency for International Development
<b>Duration:</b>	1980-1983
<b>Contact:</b>	Dr. William A. Smith, Academy for Educational Development, 1255 23rd Street, NW, Washington, DC 20037 U.S.A.

In Honduras, diarrheal dehydration accounts for 24 percent of all infant deaths and represents the single greatest cause of infant mortality. In 1977 alone, 1,030 infants died from diarrheal dehydration. The most commonly available treatment for diarrheal dehydration in Honduras is intravenous (IV) therapy, which is expensive, requires trained medical personnel and a relatively sterile environment, and is available only in fixed health facilities which serve a small portion of the country's rural population. Given the limit-

ed availability of medical assistance, the Honduras Ministry of Health, in collaboration with the U.S. Agency for International Development, developed a public education campaign whose central objective was to deliver home treatment of infant diarrhea, including the proper preparation and administration of oral rehydration therapy (ORT). Launched in January 1980, the Mass Media and Health Practices Project combined radio, specialized print materials, and health worker training. The main objectives of this mass media campaign were: 1) to reduce substantially the number of deaths from diarrheal dehydration among children under the age of five; 2) to extend rehydration therapy to isolated rural areas; 3) to reduce the per-patient cost of rehydration therapy; and 4) to introduce several diarrhea-related prevention behaviors to a significant number of rural people living in isolated areas.

The project operated in Health Region No. 1 of Honduras. This region, chosen after careful study, provided a representative population of approximately 400,000. About 900 health care workers received four to eight hours of ORT training. The training focused on performance: mixing and administering ORT salts and teaching village assistants to do likewise. The trainees performed the mixing behaviors repeatedly, using simple props such as a cardboard clock and lifelike dolls to practice each step of the process. The trainees then became trainers; they educated mothers in ORT and in a number of behaviors associated with breastfeeding, infant food preparation, and personal hygiene. Flags were provided to be flown over the homes of mothers who had received ORT training so that others would know where to go for advice and/or further instruction.

Print materials and radio were used to reinforce the instruction given by the health care workers. Since the literacy rate among tested households was high—87 percent had at least one member who could read—and 71 percent of households owned functioning radios, print and radio proved to be highly effective channels through which the messages could be communicated. The basic messages stressed throughout the campaign were: 1) administer ORS correctly when your child has diarrhea; 2) continue feeding and breastfeeding during diarrheal episodes; and 3) seek help if the child gets worse. Radio materials consisted mainly of 30-60 second spot announcements, many of them featuring Dr. Salustiano, the program spokesman for technical information. Jingles, slogans, and songs were also incorporated. The announcements covered child care during diarrhea and encour-

aged the administration of “Litrosol”—the name of locally packaged ORS. Posters and flipcharts were used to illustrate mixing directions for the ORS and to carry supporting messages.

## Results

An evaluation of the project's first year by Stanford University demonstrates that the campaign was successful in giving people health information and getting them to change specific behaviors related to their response to infant diarrhea. Data was collected on 750 families randomly selected from 20 communities. Within a year, 93 percent of the mothers knew that the radio campaign was promoting Litrosol; 71 percent could recite the radio jingle stressing the administration of liquid during diarrhea; 42 percent knew that Litrosol prevented dehydration; and 49 percent had used Litrosol. Of those who had used Litrosol, 94 percent knew the correct mixing volume and 96 percent knew to use the entire package. The importance of these high percentages lies in the fact that incorrect mixture of the ORT solution can worsen a child's condition and, in some cases, might lead to death.

Sixteen months into the campaign, 39 percent of all cases of diarrhea within the previous two weeks among the sample households were being treated with Litrosol. Mortality of children under five years of age in the study communities showed a drop in the proportion of deaths attributed to diarrhea from 47.5 percent in 1981 to 25 percent in 1982.

## Of Note

- A significant preplanning investigation of the medical problem, the social context, and the instructional tools was conducted before the project was implemented.
- The tone of the campaign was serious and straightforward. It sought to promote a mother-craft concept which supports what mothers are already doing and adds several components to “being a good mother.” ORT was presented as the latest achievement of modern science: a remedy for lost appetite and an aid to recovery.
- Dr. Salustiano, one of the radio's principal characters, became a nationally known figure.
- The prepackaged salts for the oral rehydration mixture were produced in Honduras, using the World Health Organization (WHO) formula.



## HAPPY BABY LOTTERY

<b>Country:</b>	The Gambia
<b>Target Audience:</b>	Rural Gambian mothers
<b>Objective:</b>	To teach the proper mixing and administration of oral rehydration salts, as part of a campaign to reduce child mortality caused by dehydration from diarrheal disease
<b>Media:</b>	Radio, print materials, interpersonal communication
<b>Donors/Sponsors:</b>	Ministry of Health, The Gambia; U.S. Agency for International Development
<b>Duration:</b>	1982
<b>Contact:</b>	Mark Rasmuson, Academy for Educational Development, 1255 23rd Street, NW, Washington, DC 20037; Dr. Anthony Meyer, S&T/ED, Agency for International Development, Washington, DC 20523 U.S.A.

Infant mortality due to diarrheal dehydration has declined significantly in several countries as a result of mass media campaigns to promote the use of a lifesaving oral rehydration solution. A national campaign in The Gambia was developed by the Mass Media and Health Practices Project to educate rural mothers in the proper treatment of acute infant dehydration. As part of this campaign, The Gambia's Medical and Health Department instituted a contest—the Happy Baby Lottery—which provided a structure for an intensive period of education on oral rehydration. Graphic materials, radio messages, face-to-face instruction, and inexpensive prizes were used as incentives to encourage mothers to participate in this educational process. Two hundred thousand handbills, or "ORS mixing pictures," were distributed to 20 health centers throughout the country, and further distributed to mothers and village volunteers trained to demonstrate the correct mixing and administration techniques for a home-mixed water-sugar-salt solution. Simultaneously, Radio Gambia, the national radio station, began a four-language publicity campaign to



*A red and black "Happy Baby Flag" identified the homes of women who could provide instructions on mixing the water-sugar-salt solution.*

interpret the multicolored mixing picture to explain the process of administering the solution, and to point out that the mixing picture was also the ticket to enter the lottery.

After a month of explanatory broadcasts, the names of 18 villages from around the country were drawn at random and announced on the radio. The villages were the sites of mixing contests, judged by local health workers. Each woman who presented a mixing picture could enter a preliminary drawing to be chosen to demonstrate her mixing knowledge. Each one who demonstrated the mixing procedure correctly received a one-liter plastic cup as a prize; if she could also correctly answer three of five questions about administering the solution, she received a bar of soap and became eligible for the grand prize drawing (for radio cassette players). The five villages that participated most actively in the mixing contests received community prizes of a 100-kg. bag of rice and a 50-kg. bag of sugar. The Gambian president's wife drew and announced the names of the 15 grand prize winners during an hour-long radio program.

### Results

Training mothers to mix and administer the water-sugar-salt solution correctly was the primary educational objective of the campaign. The evaluation results showed that mothers made impressive learning gains and their children's health improved significantly. The evaluation, conducted by Stanford University's Institute for Communication Research, was con-

ducted concurrently with the educational program: four resident field workers followed 800 rural mothers over the two years of the program in order to observe the effects of the campaign, the extent of the adoption of ORS, and the improvements in the health and nutrition of their children. At the end of a year, 84 percent of the mothers had heard of the home-mixed treatment. The percentage of mothers who knew the correct mixing procedure rose from zero at the beginning of the campaign to over 70 percent within nine months. Behavioral changes followed a similar pattern. In diarrhea cases treated at home, use of the water-sugar-salt solution increased from 21.7 to 94.1 percent. A total of 47 percent of rural mothers reported having treated their children's diarrhea with the solution.

### Of Note

- Working radios were available in almost 60 percent of the compounds; men own most of the radios and control the choice of station. This argued for the need for a strategy that would encourage men to make the radios available to their wives. A contest that only women could enter met this need.
- A standard measuring unit to assure the correct amounts of water, sugar, and salt was found in Julpearl, a local soft drink: three Julpearl bottles of water equaled one liter, which were mixed with eight bottle caps of sugar and one bottle cap of salt.
- The campaign used only two graphic print materials—the mixing picture and a red flag printed with the Happy Baby logo that identified the homes of community members trained to train others how to mix the water-sugar-salt solution.
- The larger educational campaign in The Gambia, which lasted two years, also made extensive use of face-to-face communication: health workers and the 700 to 800 Red Flag Volunteers who were carefully trained to teach rural community members about oral rehydration.
- The Lottery was planned to coincide with both the end of a planting cycle (giving mothers more free time), and the period of rainy-season diarrhea (assuring interest in the messages).
- The project followed a similar educational strategy of integrating print, broadcast, and face-to-face channels in its second year, to educate mothers about the proper diet for a child during and after diarrhea.

## MAN IS HEALTHY (MTU NI AFYA)

<b>Country:</b>	Tanzania
<b>Target Audience:</b>	Approximately one million adult villagers
<b>Objective:</b>	To provide villagers with basic information on disease, disease control, and the relationship between environment and health
<b>Media:</b>	Radio, cassette recorders, printed materials, interpersonal communication, flipcharts, and posters
<b>Donor/Sponsor:</b>	The Government of Tanzania with support from the Swedish International Development Authority
<b>Duration:</b>	Conceived in 1971; developed in 1972; carried out in 1973
<b>Contacts:</b>	C. Zikambona, Planning and Research Department, Institute of Adult Education, University of Dar es Salaam, Dar es Salaam, Tanzania; Budd L. Hall, International Council for Adult Education, The Ontario Institute for Studies in Education, 252 Bloor Street West, Toronto, M5S 1V6 Canada

The Man is Health project began in late 1971 as a large-scale campaign aimed primarily at educating villagers on the symptoms, prevalence, and origins of five potentially controllable widespread diseases. The project designers' secondary objective was to provide the newly-literate with an opportunity to practice their language skills. Under the combined auspices of the Tanzanian Ministries of Health, Education, and Rural Development, the campaign represented an attempt at integrated development.

The project was backed and set in motion by Tanzania's sole political party—the Tanzanian African National Union (TANU)—The Institute of Adult Education, a half dozen government agencies, and Radio Tanzania. Officials at all levels were versed in the project's importance and facets; industry was called upon to manufacture clothing stamped with the project's logo; and broadcasters and journalists



were charged with keeping the public informed of all campaign-related activities and ideas.

Some 18 months of planning, organizing, and training culminated in May of 1973 with a surge of educational and community development activities. Each week for ten weeks each study group of from 15 to 60 participants met informally with a trained discussion leader to hear radio broadcasts and to discuss simple supplementary texts provided by the government. From these discussions of health and sanitation sprang community work projects conceived and carried out by the study groups in their own villages.

### Results

An estimated two million Tanzanian adults, twice the number officials had hoped to reach, participated in the Man is Health project. Moreover, the overall attendance rate of those who participated from the beginning was 63 percent, an unparalleled achievement for a campaign of such breadth. So pervasive was the health campaign's impact that project evaluators had to reclassify some of their control groups as experimental groups.

The campaign had its critics. Some felt that it failed to integrate existing health services into its "curriculum." Some complained of tie-ups in the distribution of the texts and materials. Others felt that the training activities were too sketchy. Nevertheless, concrete evidence of the campaign's effects on the quality of village life is everywhere. In particular, hundreds of thousands of latrines were built by those who heard the radio programs, sales of mosquito netting jumped sharply in some areas, and coastal townspeople filled many of the swamp holes in which disease-carrying insects breed after heavy rains.

### Of Note

- Each study group left at least one "monument" to the Man is Health campaign. Typical projects involved digging wells or clearing living areas of insect-infested vegetation.
- Some study groups continued to meet monthly after the health campaign ended.
- Reliance upon cell leaders in several districts reinforced the ten-house cell system as a means of stimulating participation in development.
- The texts and the study guides were printed on newspaper presses. A million copies were distributed, many of which were shared.

- Some study groups reportedly diagnosed diseases that afflicted group members and sent the victims to nearby hospitals, where the diagnoses were confirmed and the patients treated.

- The network of study group leaders established in the health campaign was reactivated for the national nutrition campaign, "Food is Life," that began in June of 1975.

## NUTRITION ADVERTISING CAMPAIGN

<b>Country:</b>	Tunisia
<b>Target Audience:</b>	Poor families in depressed rural and urban areas
<b>Objectives:</b>	To test the effectiveness of combining existing face-to-face education with inexpensive nutrition education via radio
<b>Media:</b>	Radio and interpersonal communication
<b>Donors/Sponsors:</b>	U.S. Agency for International Development and Tunisia's National Institute of Nutrition (NIN)
<b>Duration:</b>	Conceived in 1975; pilot phase concluded in 1978; ongoing under NIN auspices
<b>Contacts:</b>	Sara J. Munger, Synectics Corporation, 4790 William Flynn Highway, Allison Park, Pennsylvania 15101 U.S.A.; Dr. Zouhair Kallal, Director, National Institute of Nutrition and Food Technology, 11 Rue Aristied, Briand, Bab Saadoun, Tunis, Tunisia

A 1975 national nutrition survey conducted by Tunisia's National Institute of Nutrition (NIN) showed that several serious nutritional problems plagued the poor majority of Tunisia. Principal among these were vitamin deficiencies stemming from childrearing practices whereby babies are kept swaddled and unexposed to sunlight, infants are given

no nutritional supplement to breast milk, and young children are not fed protein-rich foods. Confirmation of these problems spurred NIN to consider sponsoring a media campaign aimed at informing parents of infants about simple nutritional practices to correct the deficiencies identified and to motivate them to try such practices. At the same time, the Development Support Bureau of A.I.D. contracted a U.S. consulting firm to conduct an experimental project to determine ways of combining the use of mass media with existing nonformal education. After reviewing Colombia, Honduras, and Tunisia as potential sites for this project, A.I.D. picked Tunisia as the most representative and receptive project site.

Radio was selected as the medium for this campaign because it seemed the best means of reaching the largest number of rural mothers. Early in the project, the consultants and NIN decided to use short spot messages, rather than longer discussion programs. This decision was based in part upon earlier experiments in Nicaragua and the Philippines, which showed that repeated, simple messages can be effective in educating large populations about nutrition. The radio messages were developed systematically and were pretested at local Mother and Child Health clinics (MCHs). Music and lead-ins were added by the National Radio Broadcasting faculty.

Five basic themes were selected: the importance of exposing infants to sunlight, babies' need for supplement feeding in the first year of life, the place of eggs and protein-rich foods in the diets of healthy mothers and infants, the addition of vegetables to infants' and the mothers' diets, and the importance of breastfeeding. The "fruits and vegetables" theme, for example, received seven different treatments and the "use protein" theme received nine. The bearer of these messages is the fictitious and now widely recognized "Dr. Hakim," a respected figure who dispenses practical advice (and whose name means "wise man" in Arabic).

Scheduling of broadcasts was organized to ensure that both fathers and mothers could hear the messages. At first, two messages (each lasting from one to two minutes) were broadcast three times each day. But during the program's early weeks, criticism from educated Tunisians prompted programmers to cut scheduling back to only two programs per day. This criticism related to the unavailability of some foods endorsed in the programs and also reflected a belief of some Tunisians that short, oft-repeated messages insulted the Tunisian intelligence. These complaints were softened, however, when neighboring countries

began to express interest in duplicating the Tunisian program and when NIN staff responded directly to published criticisms and subsequently won press support.

The impact of the educational campaign was investigated by means of interviews of mothers who attended the MCHs. The project called for the selection of 16 clinics: eight clinics in which a half-day seminar would be given to midwives and nurses to reinforce the ongoing nonformal nutrition education, and eight clinics in which radio broadcasts would not be supplemented with seminars. A questionnaire was prepared and pretested for use at the end of six months of broadcasting to determine participants' knowledge, attitudes, and practices related to the five themes stressed in the project.

## Results

The most clearly demonstrable success of the program has been the adoption of mass communication as an ongoing nutrition education strategy by the Tunisian National Institute of Nutrition. The project stems from a relatively modest investment in training and program development and takes place in a setting in which media advertising of any nature was initially practically nonexistent. This commitment to continuing the communication demonstrates, perhaps more tangibly than any evaluation statistics, the belief of the Nutrition Institute personnel that communication can make an important contribution to extending nutrition education to large numbers of the rural poor.

Data from a variety of sources, including both anecdotal comments and in-depth interviewing, indicate that the program's central character, Dr. Hakim, is a widely recognized figure in Tunisia. Eighty-eight percent of the mothers interviewed identified Dr. Hakim when asked who delivered the nutrition messages via radio. Through Dr. Hakim, nutrition has become a topic of general concern throughout the country. The ability of the Dr. Hakim program to reach Tunisian society has been concretely established.

The complexity of collecting reliable evaluation information on specific changes in people's nutrition-related behavior makes judgments on the educational success of the program less conclusive. Along with responses to certain items on the evaluation questionnaire, clinic reports of sharp increases in the use of SAIHA, a supplemental food recommended in the radio programs, suggest that mothers' knowledge and perhaps even behavior were positively influenced by the program. If it is accepted that many of the objec-



tive indicators may be flawed, the self-reported increases in early exposure of infants to sunlight are positive signs of possible success. Many questions remain to be answered about the ability of communication to actually alter how people act, and this program lends increased support to the need for more creative and innovative measurement strategies.

### **Of Note**

- Although this project was conducted with the aid of consultants, basic decision-making was not taken out of the hands of Tunisians.
- No control could be exercised over exposure to the radio messages. (Most families in Tunisia own at least one radio.)
- The Tunisian firm, El Amouri Institute in Applied Psychology, was subcontracted to assist in message development and data collection.
- Radio programs were produced in Arabic, so although the contribution of the contractor to final message content was somewhat limited, the messages did not suffer from the “translation effect.”
- Radio programs were not rapid-fire advertisements, but rather short lectures on selected nutrition-related topics.
- Strictly speaking, the project design used is valid only if two distinct groups are available for the experiment, which was not the case since health workers talked to control groups.
- The broadcast’s powerful effect was probably due in part to the fact that the environment into which messages were sent was media-starved.
- Seminars and special events were designed to motivate clinic workers to link their existing educational efforts to the radio programs.

## ANNEX B

### SAMPLE MATERIALS

PRODUCT DESIGNS .....	100
PRODUCT INSTRUCTIONS AND RECORDS .....	103
EDUCATIONAL MATERIALS .....	106
PROMOTIONAL EFFORTS .....	118
LOGOS, SIGNS, AND SLOGANS .....	126
MOTIVATIONAL MATERIALS .....	131
INTERACTIVE MEDIA .....	134

The communication materials described in this section were produced by the staffs of both public and private agencies in developing countries, as part of national child survival programs. These samples are products of the public health communication methodology described in this manual. The HEALTHCOM project worked in partnership with the organizations and individuals who conceived of, designed, and produced these materials. In each case the primary sponsoring group has been indicated.

999

# B

## PRODUCT DESIGNS

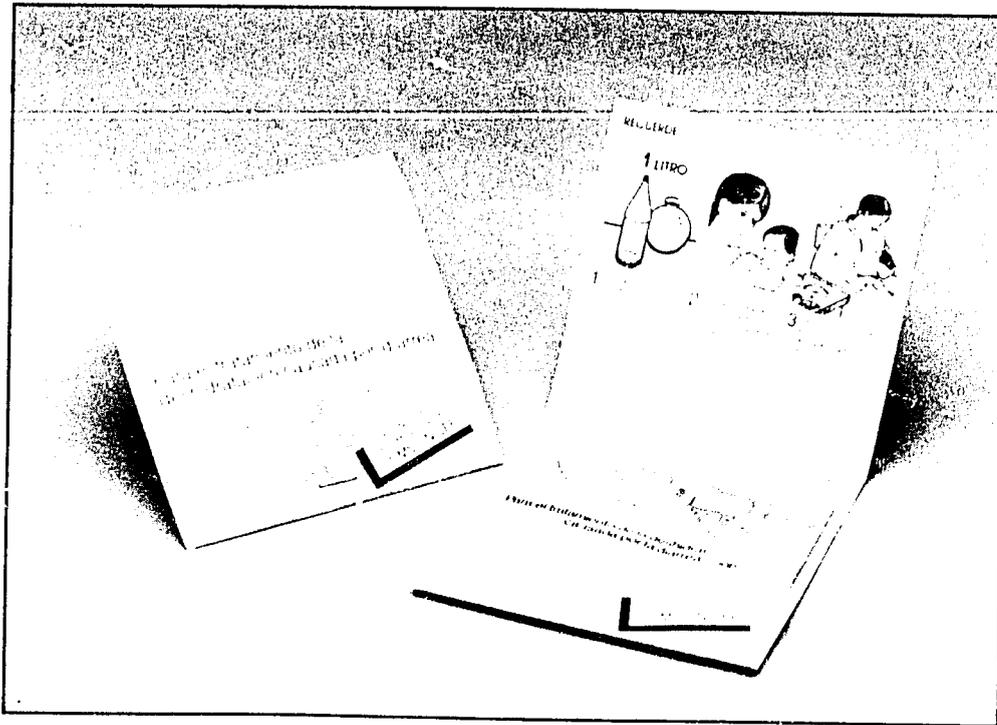
Effective product design achieves a delicate balance among many factors, most importantly: target audience appeal, instructional clarity, and local production suitability. A communication program which has the opportunity to conduct research and influence the design of a new product, such as an ORS package, may have an important impact upon consumer practices for years to come.



(1) ORS Packet and Flyer—Mexico

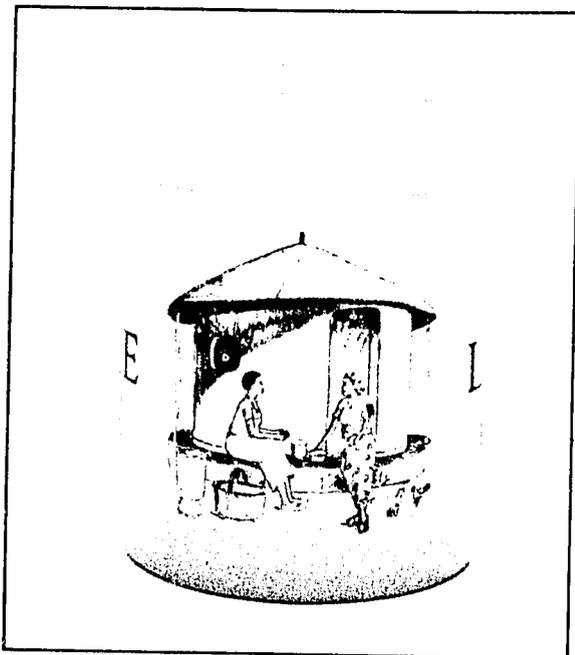
This colorful Mexico ORS packet (a) reflects the preferences expressed by mothers in focus groups. The “tree of life” theme was chosen over two quite different designs, and the product name, “Vida Suero,” or “Life Serum,” won out over 10 other possibilities. On the back a few simple pictures convey mixing instructions and advice regarding continued breastfeeding. The packets are wrapped in groups of three, together with one detailed, six-panel mixing flyer (b). This simple design decision encourages mothers to use ORS for a greater number of diarrheal episodes. The message is reinforced on the flyer, which reads, “Keep fresh Vida Suero in your home, to make sure your children are healthy and happy.” (Educación para la Salud de la Secretaría de Salud de México)





*(2) ORS Packet—Guatemala*

The newly designed ORS package from Guatemala faced a special production constraint. The packaging machine manufactured a packet with a seam down the middle of the envelope. Since the seam did not allow adequate space for illustrations on mixing, planners decided to develop a matchbook-type design. The ORS packet is attached inside a matchbook cover that includes the necessary illustrations on mixing, and messages on continued feeding and breastfeeding during diarrhea. (Adamed, S.A.; Project SUPPORT)



*(3) Liter Measuring Cup—Malawi*

In Malawi the Ministry of Health designed a plastic container to help caretakers, community health volunteers, and health workers measure a liter. An ORS mixing flyer is included inside each container. Shown here is a version with the primary health care symbol. The containers are distributed during training sessions for community health volunteers. (Ministry of Health, Government of Malawi; CCCD)



*(Water Plastic Bags - Ecuador, Honduras)*

Several countries have designed plastic "mixing bags" to help caretakers measure a liter accurately. Such bags are especially appropriate in countries where research has not been able to identify a standard mixing measure common among households. The two examples shown here, from Ecuador (above left and below) and Honduras, include both written and pictorial mixing instructions. (Ministerio de Salud Pública del Ecuador and Ministerio de Salud Pública de Honduras)



## PRODUCT INSTRUCTIONS AND RECORDS

*The challenge of conveying seemingly simple instructions or pieces of information effectively is at the heart of every communication program. Efforts to assure the correct use of a product or service must underlie any effort to increase the demand for that product or service. Planners should be careful not to underestimate the precision required in instructional messages and record-keeping forms, or the depth of audience research or materials pretesting necessary.*



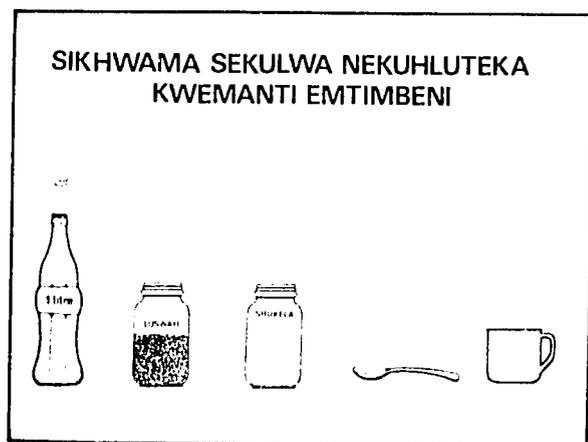
(3) *ORS Administration Instructions—Honduras*

This six-panel flyer (29 x 21 cm.) has a pocket to contain an ORS package. The flyer gives detailed illustrated information about the signs of dehydration; mixing, administration, and storage procedures; and advice regarding breastfeeding and weaning foods. (Ministerio de Salud Pública de Honduras)

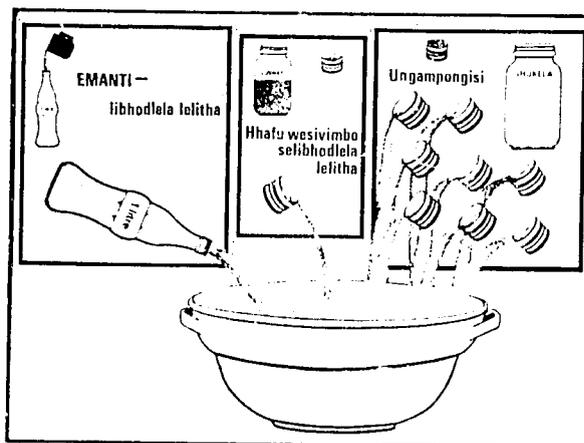
(4) *Mixing Kit—Swaziland*

“Ingredients of an SSS Mixing Kit.” One side of this flyer (a) depicts the basic ingredients and measuring devices for preparing water-sugar-salt solution in the home. The other side (b) provides a simple graphic demonstration of the recipe itself. (Swaziland Ministry of Health, CCCD)

(a)



(b)



# B

## (c) Malaria Treatment Chart and Record Form—Malawi

Community health providers in Malawi can use the Norolon brand chloroquine chart (a) as a reminder of the appropriate malaria treatment. The chart (28 x 39 cm.) shows graphically the correct chloroquine doses over three days for different age groups. The record form in Chichewa (b) was developed to go with the chart. During the first few months after training, the community health volunteer uses one record form for each patient at each visit, to indicate doses actually distributed. This enables supervisors to determine whether the volunteers have learned how to diagnose and treat malaria properly. (Sterling-Winthrop; Ministry of Health, Government of Malawi; CCCD)

**TREAT MALARIA WITH**

**Norolon**

Age	1st Day	2nd Day	3rd Day	Total
0-5 years	1/2 Tablet	1/2 Tablet	1/2 Tablet	1 1/2 Tablets
6-11 years	1 Tablet	1 Tablet	1 Tablet	3 Tablets
12-17 years	1 1/2 Tablets	1 1/2 Tablets	1 1/2 Tablets	4 1/2 Tablets
18-21 years	2 1/2 Tablets	2 1/2 Tablets	1 Tablet	6 Tablets
Adults 22 years and over	4 Tablets	4 Tablets	2 Tablets	10 Tablets

**NOROLON** is a brand of Chloroquine Phosphate

LEMBANI PA FOLOMU IYI ODWALA MALUNGO  
ALIYENSE AMENE MWAMUONA

NAME of TBA \_\_\_\_\_  
ID of TBA \_\_\_\_\_  
MONTH \_\_\_\_\_

0ZINA LA ODWALA

4 5 6  
ZAKA

MIYEZI

7 8 9  
10 11  
ZAKA

1 2 3  
ZAKA

WAMKULU

WAPAKATI  
WAMALUNGO

WAPAKATI  
WOPANDA  
MALUNGO

**Tuberculosis** Dos dosis :

- Antes de cumplir un año y
- Al entrar al primer grado escolar



1ª. dosis \_\_\_\_\_

2ª. dosis \_\_\_\_\_

## (8) Vaccination Card—Honduras

This vaccination card is not only a record-keeping device for parents, but also a pictorial reminder of the required number of each type of vaccination. Research showed that many parents identified vaccinations according to the parts of the body where they are administered, so the card illustrates the doses in this way. (Ministerio de Salud Pública de Honduras)

*The Radio Song - Mandinka*

A famous Gambian singer recorded this song in Mandinka, giving detailed instructions about preparation of water-sugar-salt solution and proper feeding. The song was broadcast over the radio. It reinforced use of a widely distributed printed mixing flyer, shown below. (See also section on interactive media, page 135.) (Medical and Health Department, The Gambia; Radio Gambia)

**Radio Song by Traditional Singer,  
Jelinyamu Suso**

Nursing mothers, parents, women with children—if your children have diarrhea, you know what the medicine is? Wait, let me tell you the medicine for it.

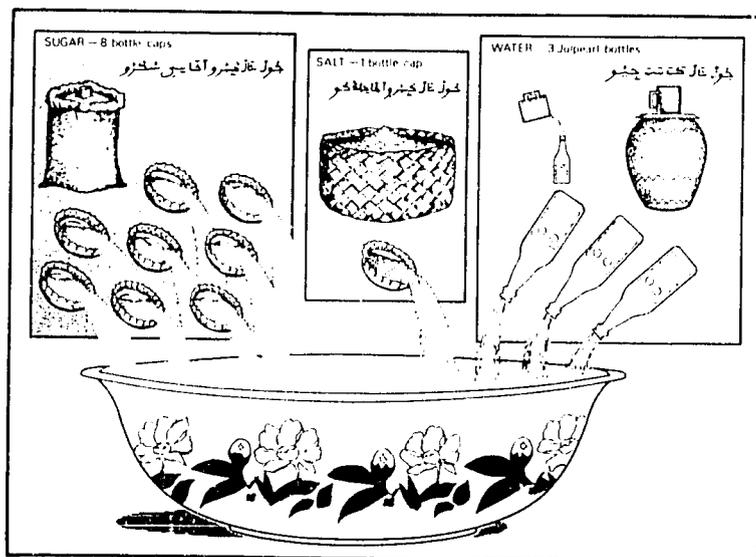
- One bottle Julpearl filled with water three times and put it in a basin.
- One cover of the Julpearl bottle filled with salt and put it in the water.
- Eight times of it with sugar and put it in the water. Nothing more than eight times.

You give it to your child. If you give it to your child, he will be quite all right again. Secondly, give rice-groundnut porridge. That is also a medicine. The doctors told me this. Listen, the doctors told me to tell you. Rice-groundnut porridge is a good medicine, so give it to your child. Thirdly, breastfeed your children. It is true that breast milk is the medicine for your children. Diarrhea is the cause of death and it

kills many children. Nursing mothers, take good care of your children for they will be elders of tomorrow. Remember, being a parent is not easy, so take good care of your children because they will be elders of tomorrow.

- Remember, take one bottle Julpearl filled with water three times and put it in a basin.
- One cover Julpearl bottle with salt and put it in the water.
- Eight covers Julpearl bottle filled with sugar and put in the water.
- Give food like boiled rice and groundnut porridge. This helps the child with labaro.
- Breastfeed your children, for breast milk will aid your children from labaro.

Jatta Kendeya people told me to tell you this. Then mothers, parents, take good care of your children.



# B

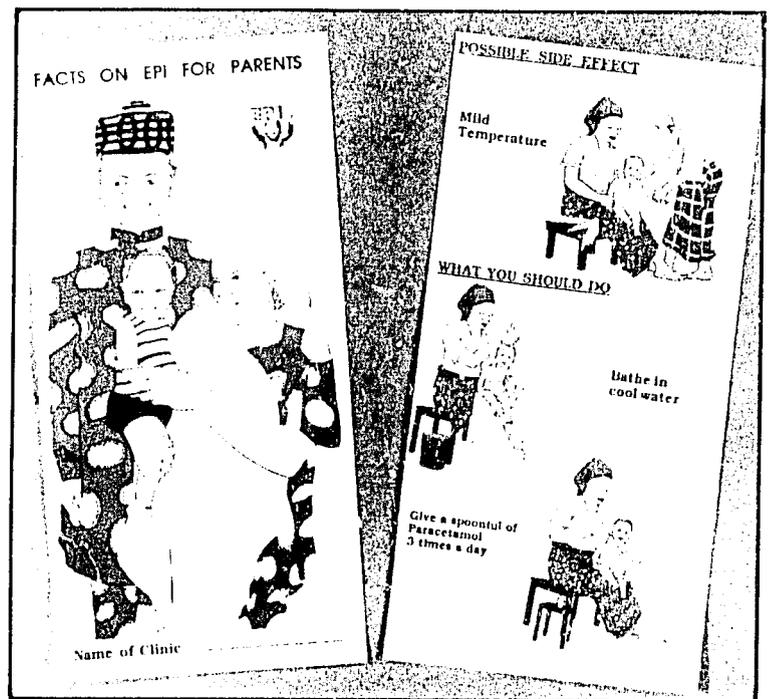
## EDUCATIONAL MATERIALS

*Although in some situations a person may adopt a new practice without understanding the importance or real purpose of that practice, a change in behavior is usually preceded by a change in knowledge and in attitude. Successful public health programs therefore put substantial efforts into educating a variety of audiences. Different audience segments require different amounts of information, as well as different presentations of that material.*

Fig. 1. Immunization.

### (1) EPI Flyer—Nigeria

This six-panel flyer for parents uses simple pictures to convey the proper immunization schedule and the vaccination sites. It also gives information about possible side effects and what a mother's response to these should be. (Nigeria Federal Ministry of Health, CCCD)



### (11) Tetanus Poster—Guatemala

“Take Care of a Pregnant Woman, it’s a Good Beginning for a New Life.” Three simple colorful pictures convey the idea that an expectant mother who receives a tetanus vaccination will have a healthy baby. The poster is displayed at health centers. (Ministerio de Salud Pública y Asistencia Social de Guatemala)



# B

## *AID Television Spot—Paraguay*

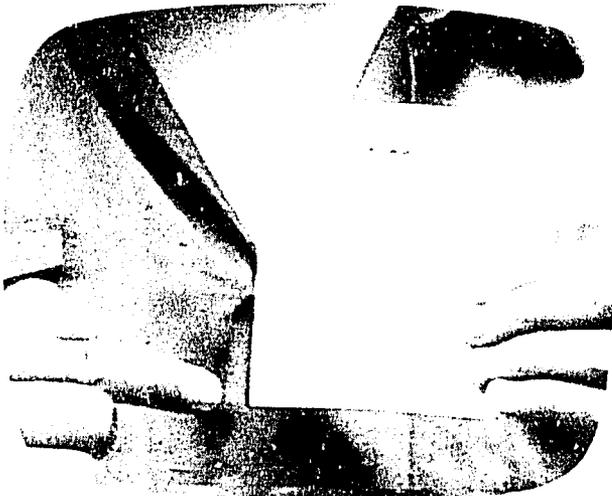
This 30-second spot shows a young husband and wife concerned about their daughter who has diarrhea. A passing neighbor explains the dangers of dehydration and briefly tells them how ORS can help. He tells them they can go to the health center any time for assistance. Other spots explain how to mix ORS in the home. (Ministerio de Salud Pública y Asistencia Social del Paraguay, biedermann publicidad s.a.)



*Neighbor: "What's wrong with your baby girl?"  
Father: "It's very severe diarrhea."*



*Neighbor: "Be careful. Diarrhea produces dehydration and that's very dangerous. Take her to the health center so they can give her ORS, which is the salt of life."*



*"Go any time. There's always someone to help you.  
ORS—the salt of life."*



*ORS—Oral Rehydration Therapy. For children to live.*

*Diarrhoeal Disease - Ecuador*

Flipcharts are effective aids for health workers to communicate with groups of caretakers. The one shown here (43 x 64 cm.) consists of 18 panels covering six general themes related to diarrheal disease control. It was designed for and pretested with a target audience in the mountainous regions of Ecuador. A variation was also designed for the coastal regions, taking into consideration cultural and other differences between the respective populations. The four-color cloth flipcharts are washable and can be easily rolled up for trips to the field. (Ministerio de Salud Publica del Ecuador)



**When your baby is recovering from diarrhoea**  
 (English text in English)




**give him solid foods to restore his power.**  
 (English text in English)

**mbaxal**  
**nelenj**  
**cere**  
**padanj**

**nankataro**  
**nelenjo**  
**futoo**  
**maani fajirijo**

*For Feeding Flyer - The Gambia*

"When Your Baby is Recovering from Diarrhoea." One side of this flyer (30 x 42 cm.) provides six photographs of specific foods which "give extra power to a child" who has had diarrhea. The foods are labeled in English, Mandinka, and Wolof. Messages regarding nutrition are particularly important in countries where purging or withholding of food during or after diarrhea is common. (Book Production and Materials Resources Unit; Medical and Health Department, The Gambia)

(12) Foods poster—Swaziland

“Arm Yourself, Swazis.” This colorful poster (41 x 58 cm.) for parents emphasizes the interrelation between giving water-sugar-salt solution and the importance of continued breastfeeding and nutrition. It includes a complete graphic “recipe” for water-sugar-salt solution and simple depictions of common high-calorie and high-protein foods. (Swaziland Ministry of Health, CCCD)



(13) ARI booklet—Honduras

“What is Severe Respiratory Infection?” This six-page booklet uses a cartoon format to help mothers identify and understand severe respiratory infections. It illustrates four signs of severity: high fever, persistent coughing, breathing difficulty, and earaches. The booklets are provided to mothers at health centers. (Ministerio de Salud Pública de Honduras)

## EDUCATIONAL MATERIALS

For Health Providers

### (19) Treatment Poster—The Gambia

“Diarrhoea Management.” This diarrhea treatment chart (83 x 61 cm.) for health workers uses graphics and contrasting colors to identify clearly three different treatment plans for diarrhea. (Medical and Health Department, The Gambia)

**DIARRHOEA MANAGEMENT**

**TREATMENT PLAN I  
NORMAL HYDRATION**  
When child has DIARRHOEA

**SUGAR/SALT**

Give 20ml of UNICEF solution for each kg of child's weight for 1 hour.

Give 40ml of UNICEF solution for each kg of child's weight for 2 hours.

Give 60ml of UNICEF solution for each kg of child's weight for 3 hours.

Give 80ml of UNICEF solution for each kg of child's weight for 4 hours.

Give 100ml of UNICEF solution for each kg of child's weight for 5 hours.

Give 120ml of UNICEF solution for each kg of child's weight for 6 hours.

**TREATMENT PLAN II  
MODERATE DEHYDRATION**  
When child has DRYNESS and SUNKEN EYES

**UNICEF PACKET**

**WEIGH CHILD IN KGS**

**MIX 1 UNICEF PACKET IN 1 LITRE OF WATER**

Give 20ml of UNICEF solution for each kg of child's weight every hour for 4-6 hours

**TREATMENT PLAN III  
VERY WEAK, LIMP or UNCONSCIOUS**

**UNICEF PACKET and IV/LP**

Give 20ml of UNICEF solution for each kg of child's weight for 1 hour.

**MEANWHILE  
TRANSFER CHILD TO FACILITY WITH IV OR LP**

**HOW MUCH UNICEF SOLUTION PER HOUR?**

3kg	▶ 60ml	7kg	▶ 140ml
4kg	▶ 80ml	8kg	▶ 160ml
5kg	▶ 100ml	9kg	▶ 180ml
6kg	▶ 120ml	10kg	▶ 200ml

**1** 1/2 TEASPOON SALT  
**8** 1/2 TEASPOON SUGAR  
**3** 1/2 TEASPOON WATER

### (20) Vaccine Sticker—Guatemala

“My quality will last as long as you maintain my temperature between 4 and 8 degrees C.” This sticker showing a talking tetanus vaccination vial can be stuck on a refrigerator to remind health workers about proper storage. (Ministerio de Salud Pública y Asistencia Social de Guatemala)

**Mi calidad durará, mientras me mantengas entre 4° y 8° C.**

**TOXOIDE TETANICO**  
Via Im.  
Aglar antes de us

**NO CONGELAR**

**Cuidar a la embarazada, es un buen comienzo para la nueva vida.**

# B

## (21) Vaccination Poster - Ecuador

"General Norms for Vaccinations." Detailed information about vaccination norms are provided in this poster (87 x 63 cm.) for health workers. For each vaccine, information is given regarding ages for immunization, vaccination sites, dosages, contraindications, and reinforcements. (Ministerio de Salud Pública del Ecuador)

# INMUNIZACION

## NORMAS GENERALES SOBRE VACUNACION

### ESQUEMA DE VACUNACION PARA MENORES DE 1 AÑO:

	1 MESES	2 MESES	4 MESES	6 MESES	9 MESES
<b>BCG*</b>	Primera vacunación		No se necesita	No se necesita	No se necesita
<b>DPT</b>		1a. DOSIS	2a. DOSIS	3a. DOSIS	UNICA DOSIS
		1a. DOSIS	2a. DOSIS	3a. DOSIS	

\* Si la vacuna BCG no se administró al recién nacido, podrá ser aplicada conjuntamente con las otras vacunas.

ES IMPORTANTE QUE EL NIÑO COMPLETE EL ESQUEMA DE VACUNACION DURANTE EL PRIMER AÑO DE VIDA.

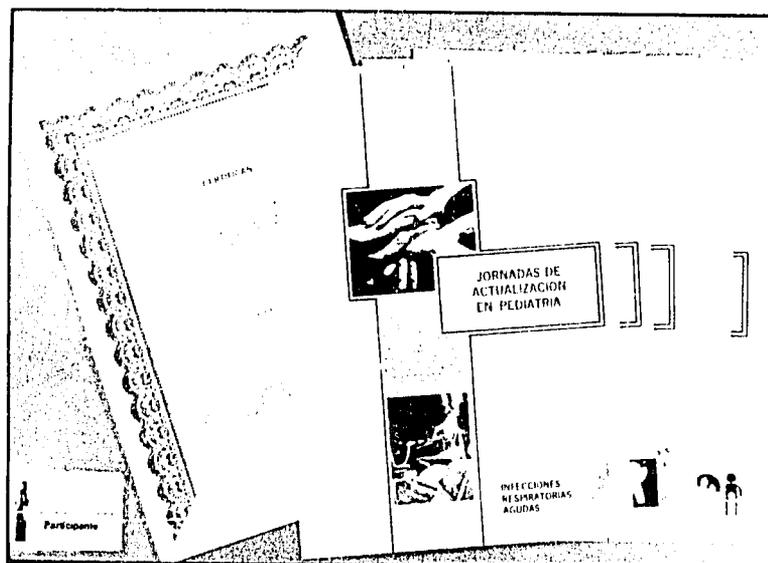
VACUNAS	SITIO DE APLICACION	DOSIS	VIA	CONTRA-INDICACIONES ESPECIFICAS	CONTRA-INDICACIONES GENERALES	REFUERZOS
<b>BCG</b>	Hombro derecho	0.1cc	Intradérmica	Recién nacido con peso inferior a 2500 gramos		A los 6 y 12 años de edad
<b>DPT</b>	Gluteo	0.5 cc	Intramuscular	Alto de antena Convulsiones		1 año después de la 3a. dosis

#### TOSQUE TETANICO (T.T.) A EMBARAZADAS

	Inicio	Fin
PRIMERA VACUNACION		
SEGUNDA		
TERCERA DE APLICACION		
VIA		
CONTRAINDICACIONES ESPECIFICAS		
CONTRAINDICACIONES GENERALES		
REVISOR		

## (22) Seminar Materials - Ecuador

The materials shown here are part of a package distributed to participants in a series of three-to-four day seminars on diarrheal disease control, immunizations, growth monitoring, breastfeeding, and nutrition. The package contains various program materials, technical readings, an identification card, and an evaluation sheet. Those who complete the seminar receive a certificate signed by the Minister of Health. The seminars were designed primarily for pediatricians. A total of 2,500 physicians, nurses, social workers, and health educators will participate in 20 such seminars throughout Ecuador. (PREMI/Ecuador)



*U.S. Training Video - Mexico*

"Miriam: Successful Use of ORT." This 23-minute video is meant for doctors to use in training medical students about ORT. The video follows the drama of a girl, Miriam, who is actually treated for dehydration at the Frederico Gomez Children's Hospital in Mexico City. A famous actress plays the part of her mother. Miriam's story is interspersed with presentations by doctors from a number of countries, who describe the signs of dehydration and appropriate treatment. Animation enlivens the technical presentations. (Pan American Health Organization)



*Announcer: "Every six seconds a child dies due to diarrhea. This is equivalent to 10 children every minute, 600 every hour, 14,000 every day, more than 5 million every year. The majority of these deaths are directly related to dehydration produced by diarrhea."*



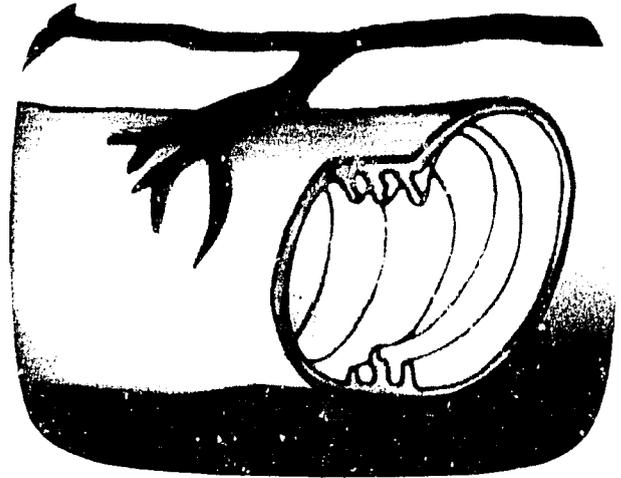
*Mother: "It was a terrible experience. My daughter had had diarrhea throughout the night, and even though she had fallen asleep in the early morning, she woke up again complaining. Her diaper was dirty again, she was in pain, and cried without any tears. I rushed her to the hospital."*

(c)



Dr. Pizarro: "Diarrhea is an infectious syndrome usually caused by viruses, bacteria, or parasites, and is characterized by the lack of solidity in the stools. The sickness usually lasts three to five days and dehydration causing death is one of the complications of diarrhea."

(d)



"The treatment of diarrhea was revolutionized when it was discovered that the small intestine absorbed more sodium and water when glucose was present. This became the scientific basis of the oral rehydration salts."

(e)



Dr. Salazar: "Since oral rehydration therapy has been used in hospitals, its versatility, efficacy, and simplicity have been recognized. Before, intravenous solutions were used, however, and it was a long process. With ORS, diarrhea is treated quickly and effectively from the day it starts."

(f)



"The quantity of oral salts given to the patient varies depending on the seriousness of the dehydration. For example, patients with moderate dehydration are treated with 100 milliliters of oral salts per kilo of weight."

(g)



*The solution is given in four hours at 30-minute intervals, with a cup and a spoon. Breastfeeding is not interrupted. While the patient is treated with the oral salts, the health personnel closely watch the patient's status."*

(h)



*Dr. Mota: "When the child is considered to be clinically rehydrated, he or she will be released from the hospital: vomiting will have stopped, liquids and milk will be tolerated, and the stools will not be totally liquid. This is usually achieved in four to eight hours."*

(i)



*"The mother is taught how to prepare and give the oral salts. She will be given three envelopes of oral salts to prepare at home. She will give the child half to one cup of the preparation after each movement and until the consistency of the stools changes from liquid to semi-solid."*

(j)

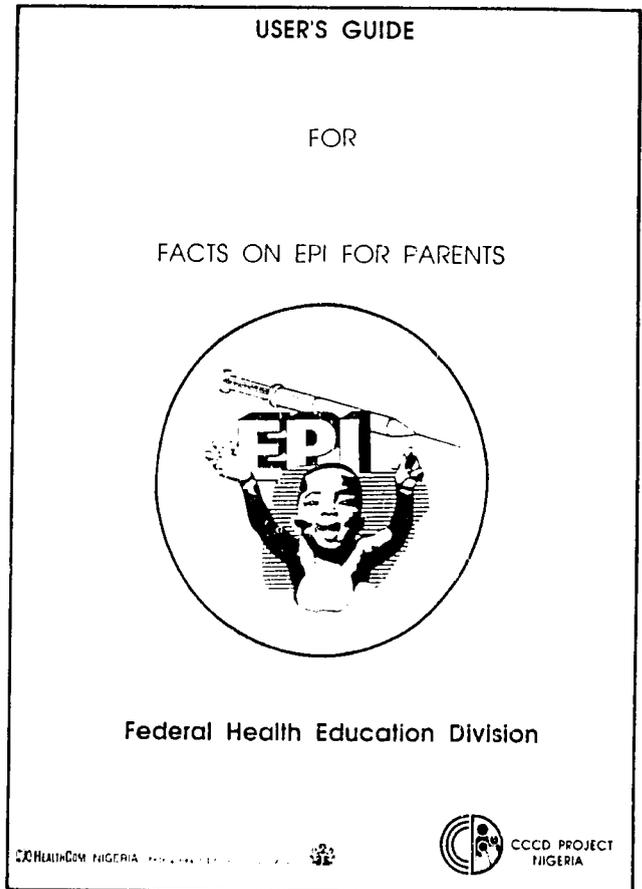


*"The child usually improves steadily and his or her recuperation is spectacular."*



*(24) Kader Manual - Indonesia*

“Kader Training Book.” Local volunteers, or kader, received copies of this 18-page color booklet as part of their training and to aid their community work with mothers. Illustrations and simple text describe the signs of dehydration, the proper administration of ORS, and appropriate feeding. (Government of Indonesia Department of Health, Yayasan Indonesia Sejahtera, UNICEF, P.T. Pharos)



*(25) EPI User's Guide - Nigeria*

This 29-page black-and-white booklet is a guide for health workers in the use of an EPI flipchart for parents. The booklet reproduces each panel of the flipchart, together with an explanation of the purpose of the panel, and gives possible points for discussion. (Nigeria Federal Ministry of Health, CCD)

EDUCATIONAL MATERIALS

For Children

1. Carliman and the PREMI Fairy Godmother. Ecuador

12

(26) *Carliman y el Hada Premi. Ecuador*

“Carliman and the PREMI Fairy Godmother.” Carliman, or Carlitos, is an infant who successfully battles the many threats to childhood health, with the help of his older brother and sister and the good fairy of PREMI. The comic strip in which he appeared was very popular with both children and adults. (PREMI/Ecuador)



(27) *Photo Novel—Honduras*

“You Saved your Little Sister!” This 21-page black-and-white photo novel tells the story of a baby girl, Estela, who has diarrhea and becomes dehydrated. The story is told from the point of view of her older brother, Mario, who first notices she is ill. As the drama unravels, Mario and his family learn how to identify dehydration and what to do about it. Discussion questions are included at the back. (Ministerio de Salud Pública de Honduras)

# B

## PROMOTIONAL EFFORTS

*Almost all communication messages or materials are in some sense promotional. Even a simple instructional leaflet can spark interest in its audience through elements of design or tone. Educational materials meant to affect knowledge may simultaneously affect attitudes if they are effectively produced. However, successful demand creation usually requires an imaginative array of focused promotional efforts. For a consumer, promotional messages may become the bridge from knowledge to action. For a health provider or public official, they can mean important changes in personal commitment.*

### **Radio Song: Breastfeeding**

Mother,  
that little one who kicked your tummy  
has finally arrived.  
His little eyes are now looking at you and  
smiling.

His little hands still have no strength, Mother,  
but they squeeze anyway.  
He, that is so tiny,  
depends on you to grow, Mother.

Care for your child from the moment he's born.  
Give him your breast so he will grow.  
Give him the vigor  
that only your breast can give, Mother.

Announcer: A mother that breastfeeds  
Is a true mother.  
For a healthy people,  
we are working.  
Ministry of Public Health.

*(28) Radio Through the Spots—Honduras*

These two radio spots promote breastfeeding and the care of the breastfeeding mother by appealing on the one hand to motherly instincts, and on the other to the affection and humor displayed by two husbands. (Ministerio de Salud Pública de Honduras)

### **Radio Spot: Women Need Special Care when they are Breastfeeding**

*(Breastfeeding jingle—"The Modern Mother Breastfeeds and has Healthy Children")*

Man: Martin, my wife just had our first child.  
What can I do to show her my feelings?

Martin: Tell her this poem! A mother who breastfeeds is a real mother. Because of that, her husband should give her special care and better food...But the most important thing...

Man: What's the most important thing?

Martin: To put the poem into practice! When your wife is breastfeeding you need to give her special care and make sure that she's eating more and better than normal. You hear?!

Man: You're something else, Martin!!!

Martin: I sure am!

*199. Circus de la Salud—Guatemala*

The Ministry of Health set up a stand at Guatemala's national fair in order to raise the citizens' consciousness of various child survival themes. The *Circo de la Salud*, or health circus, presented puppet shows, a documentary, photographs, and songs dealing with diarrhea, vaccinations, and general hygiene. Shown here is one of the circus health clowns, passing out balloons printed with various health messages. (Ministerio de Salud Pública y Asistencia Social de Guatemala)



*200. Parade—Honduras*

The exhilaration of a parade is experienced by participants as well as observers. Public officials, health workers, volunteers, and children can all help publicize campaigns or general health causes through such public events. Pictured here is a parade in Honduras held to promote the national child survival mobilization effort. (Ministerio de Salud Pública de Honduras, UNICEF, PAHO, European Economic Community)

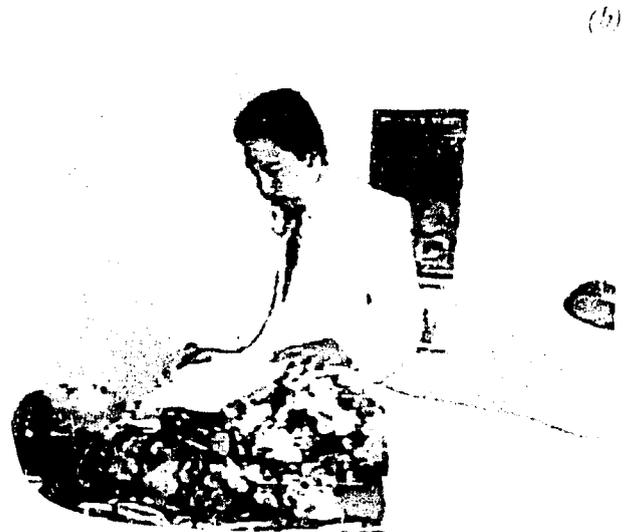
# B

## *(31) Television Spot—Guatemala*

This 35-second spot features a young couple concerned about the health of their unborn child. The husband tells the mother to visit the health center where she will receive various services. An effective moment at the end freezes a shot of the mother as she leaves the health center, while in the background can be heard the cry of her unborn child. (Ministerio de Salud Pública y Asistencia Social de Guatemala)



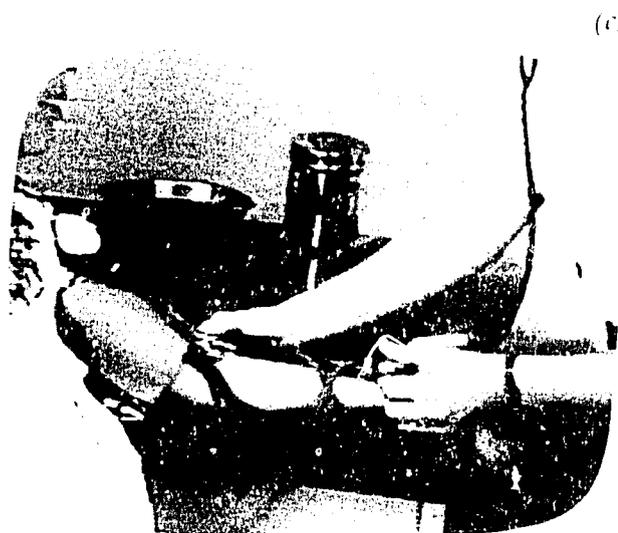
(a)



(b)

*Wife: "I'm looking forward to seeing our child."  
Man: "And I hope that it's born healthy. Don't forget to go to the health center."*

*Announcer: "At the health center, they examine you."*



(c)



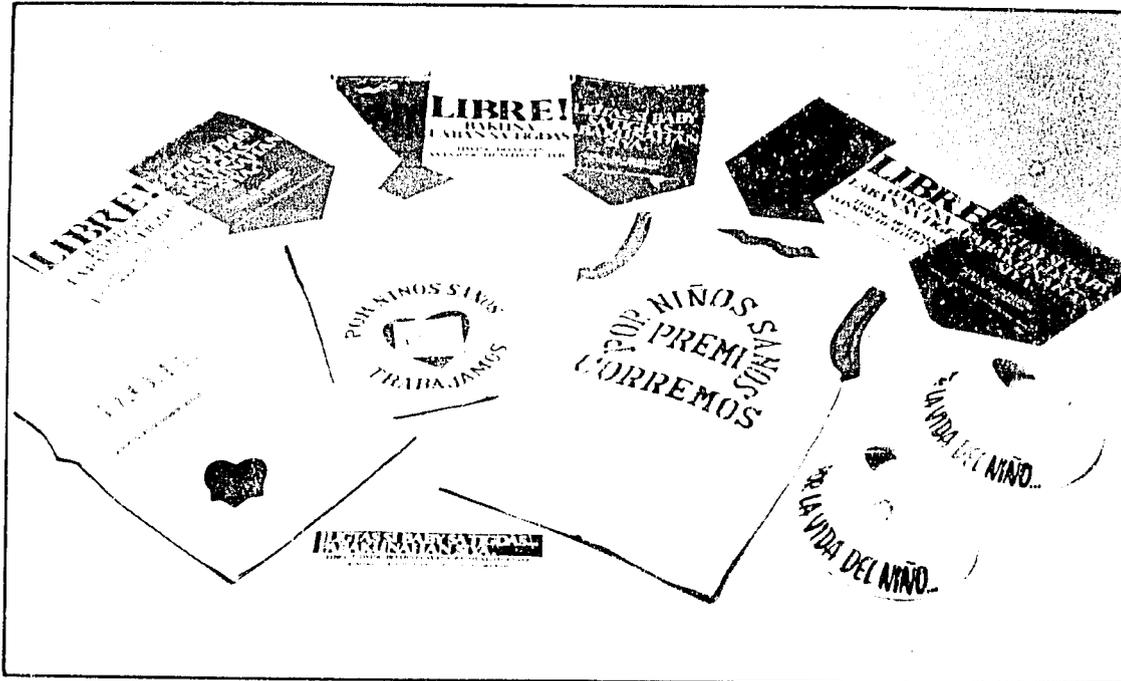
(d)

*"And they tell you how to take care of yourself and the baby during the pregnancy."*

*(Song) "Taking care of the pregnant women—it's a good start for the new life."*

*(32) Promotional Give-aways*

Inexpensive “gimmicks” such as banners, paper hats, buttons, T-shirts, bumper stickers, and balloons printed with child survival messages can be effective and highly visible advertisements for those causes. Shown here are examples from Ecuador, Honduras, and the Philippines.



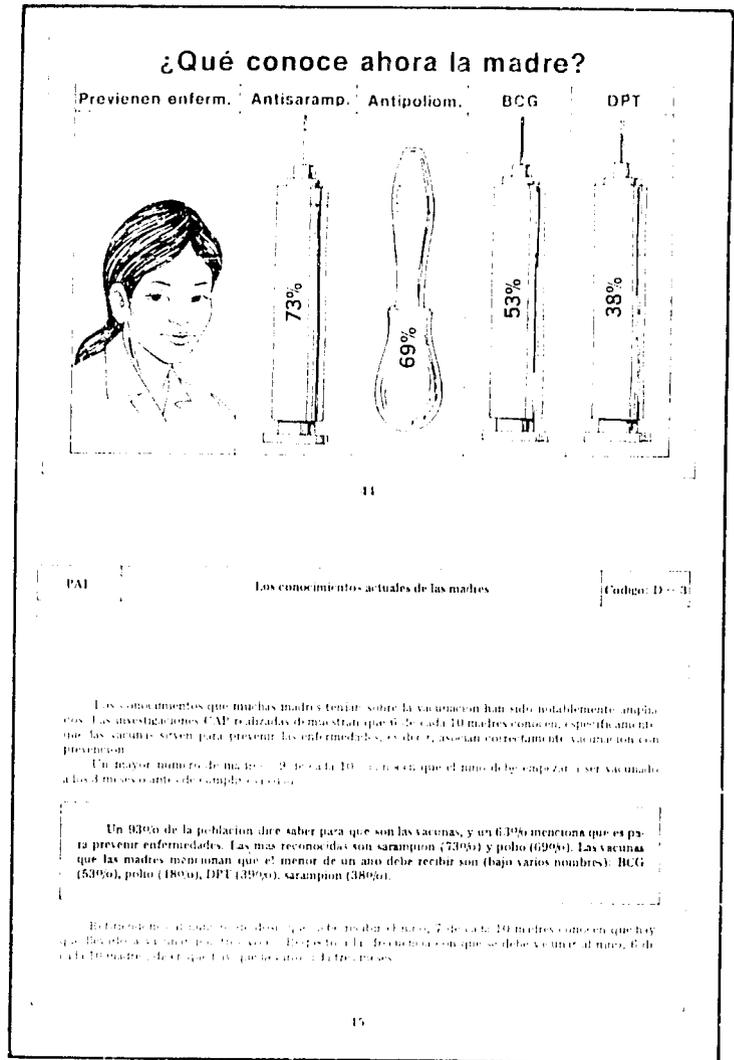
*(33) Newspaper / Magazine Publicity*

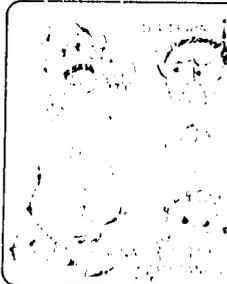
Even brief articles in popular print media, covering child survival activities, statistics, workshops, or general challenges, can increase awareness among large audiences. Shown here are examples from several Latin American countries.





"PREMI: The Great Ecuadorian Challenge." The national child survival program in Ecuador produced this 95-page black-and-white booklet after months of intensive activities, for distribution to public officials and the media. The booklet describes in laymen's terms and with simple charts and graphs the successes of the program to date. (PREMI/Ecuador)





**¡Proteja a su niño!**

La salud de un niño es su responsabilidad. El niño necesita protección y atención médica adecuada para crecer sano y fuerte. La vacunación es una de las formas más efectivas de proteger a su niño de las enfermedades graves. Visite a las Unidades de Salud y tómese la VI. Jornada el 2 de agosto. Un mensaje del PREMI.

**alguien quiere conocerle**



CLUB DE LA AMISTAD

NOSOTROS LE AYUDAMOS A ENCONTRAR UNA AMIGA

\*BIRU POSTAL O TELEGRÁFICO\*

\*RECOMENDACIONES\*

**VOLANTE EN JUEGO CONCURSO N° 380**

N.	JUEGAN EN	EQUIPOS	CIUDAD	PTS.	OTROS
1					
2					
3					
4					
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12					
13					

Promotional messages can be included in almost any publication which accepts advertisements. Shown here is a soccer leaflet from Ecuador. Each week, 150,000 of these leaflets carried child survival messages. (PREMI/Ecuador)

# B

## U.S. Television Spots - Philippines

This 40-second television spot presents a mini-drama about a child with measles whose condition becomes complicated. The Secretary of Health reminds mothers that measles is not always a harmless childhood illness, and that they should have their children vaccinated. The spot ends with information about extended hours at the health centers, when mothers can take their children for vaccinations. (Department of Health, Republic of the Philippines)



*Mother: (tearfully) "We thought it was nothing to worry about. It only started as measles."*



*"But now the doctor says complications have set in."*



*Secretary of Health: "Don't take measles for granted. It can bring on complications like pneumonia and meningitis. Have your child immunized against measles if he/she is from nine to twelve months old."*

(d)

**LIBRENG BAKUNA  
8 AM to 8 PM  
TUWING BIYERNES  
METRO MANILA HEALTH CENTERS**

Department of Health NCR  
Immunization Program

*Free Vaccinations from 8 A.M. to 8 P.M. every Friday  
at Metro Manila Health Centers.*

*USA/Do-It-Yourself - Philippines*

This poster complements the television spot described on the previous page. It reminds mothers that the health centers remain open late on Fridays, specifically so they can have their children vaccinated. (Department of Health, Republic of the Philippines)

# TUWING BIYERNES!



1988 February 1988

SUN	MON	TUE	WED	THU	FRI	SAT
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

March 1988

**LIBRE!**  
**BAKUNA LABAN SA TIGDAS**  
**SA INYONG HEALTH CENTER**  
8:00 A.M. - 8:00 P.M.  
DEPARTMENT OF HEALTH - IMMUNIZATION PROGRAM

*USA/Personal Appearances - Ecuador*

The First Lady of Ecuador, Sra. Eugenia Cordovez de Febres Cordero, identified herself with the country's national child survival program, known as PREMI. She appeared on television to promote the national campaigns, and also appeared at vaccination sites during the six campaigns. Her support as a national figure, as president of PREMI, and also as a mother, gave enormous credibility to the child survival activities.



# B

## LOGOS, SIGNS, AND SLOGANS

*Symbols of child survival products or programs can be powerful promotional devices. A logo or sign may originally be designed to fill an informational need—for example to help a consumer identify a product or service location. But an effective symbol will quickly take root in the minds of consumers, and be transformed into a sort of abbreviated advertisement. A successful symbol is simple but distinctive, effective in a variety of sizes, and has positive connotations for all important audience segments. A successful slogan, similarly, is brief but catchy, and projects a tone which appeals to caretakers as well as health professionals.*



(40) *Child Survival Logo—Ecuador*

Mothers in focus groups came up with the ideas that were used for the child survival logo in Ecuador. The original logo consisted only of the girl and the boy. Carlitos, the under-one-year-old, was added to the picture after it was determined that more emphasis needed to be put on that age group. (PREMI/Ecuador)

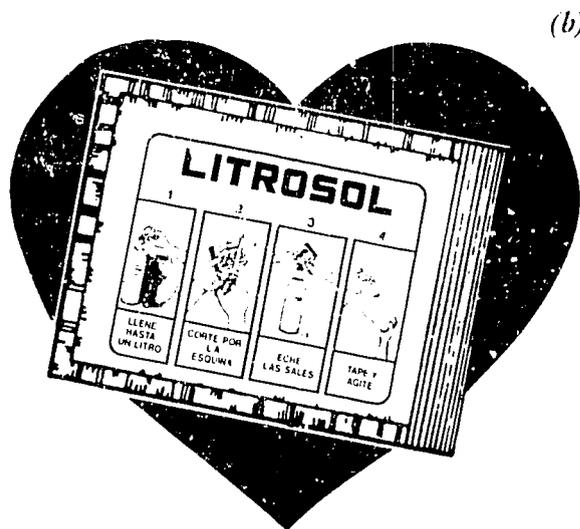
(41) *ORS Logo—Swaziland*

The representation of a "happy baby" was first used as a logo for ORT in The Gambia. Local artists in a number of African countries have adapted the logo to satisfy the preferences of target audiences. The design shown here was developed in Swaziland. (Swaziland Ministry of Health, CCCD)



*(1.2) ORS Logos—Paraguay, Honduras*

These ORS logos from Paraguay (a) and Honduras (b) clearly suggest the product itself, but also communicate a definite tone. (Ministerio de Salud Pública y Asistencia Social del Paraguay, biedermann publicidad s.a.; and Ministerio de Salud Pública de Honduras)



*(1.3) Child Survival Slogans*

Slogans can be effective reminders of both products and child survival programs per se. Quoted here are a variety of slogans from different countries.

**Sample Slogans**

**Child Survival Slogans**

- Ecuador: "POR NINOS SANOS TRABAJAMOS"  
("We work for healthy children")
- Paraguay: "PARA QUE LOS NINOS VIVAN"  
("For children to live")

**ORT Slogans**

- The Gambia: "SPECIAL DIET FOR DRYNESS"
- Paraguay: "LA SAL DE LA VIDA"  
("The salt of life")

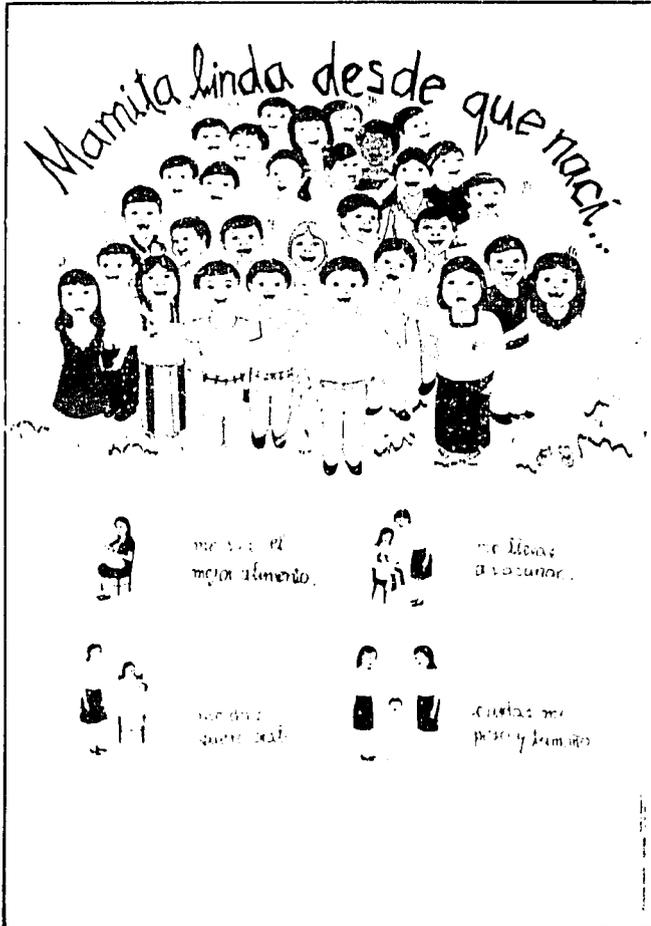
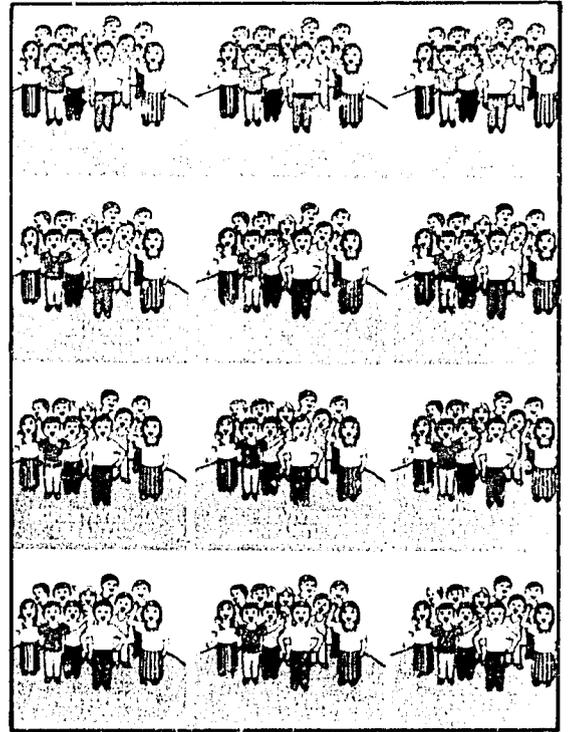
**Immunization Slogans**

- Swaziland: "AYIHILOME MASWATI"  
("Arm yourselves, Swazis")
- Philippines: "SA TIGDAS LANG ITO NAGSIMULA..."  
("It just started as measles...")

# B

*(44) Child Survival Logo (Stamps)---  
Guatemala*

The Guatemala child survival logo shows a group of children representing the country's various ethnic groups. Small stickers with the colorful logo can be used on correspondence or stuck on any objects (refrigerators, desks, and so forth) to identify them with the program. The child survival program frequently uses the perspective and actual voices of children to convey health messages. (Ministerio de Salud Pública y Asistencia Social de Guatemala)

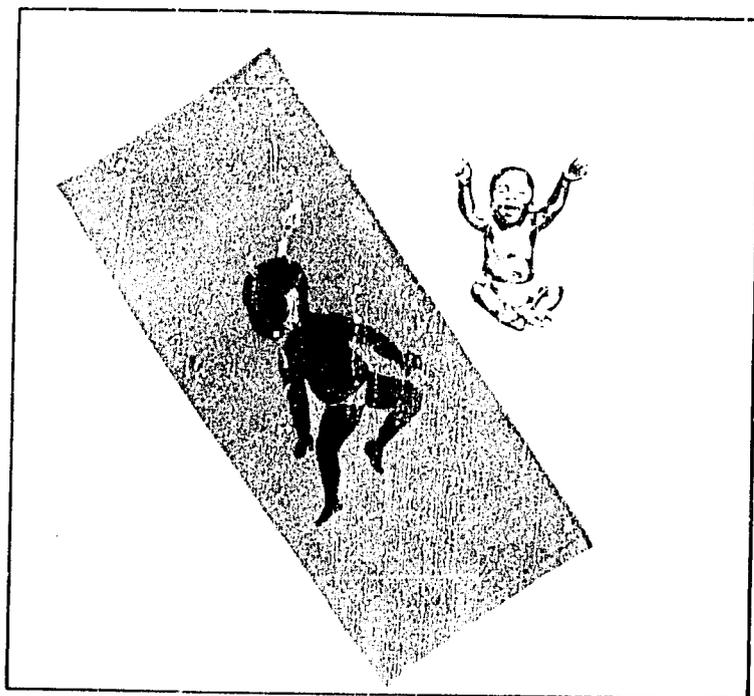
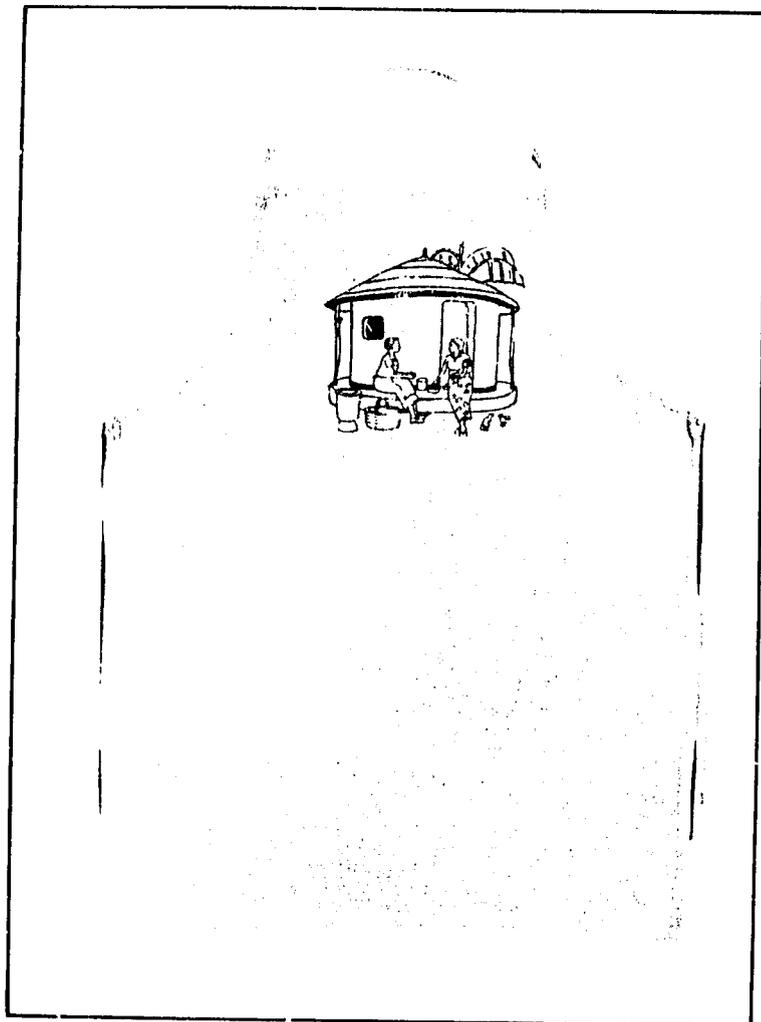


*(45) Child Survival Logo (Poster)---  
Guatemala*

"Sweet Mama, Since I was Born..." Television spots and posters such as this one often use the logo itself or show an actual group of singing children. This poster presents the four-part child survival umbrella theme. A child thanks "sweet mama," saying, "you've given me the best food," (breast milk), "you've taken me to be vaccinated," "you've given me ORS," and "you've taken care of my height and weight." The poster is displayed in health centers. (Ministerio de Salud Pública y Asistencia Social de Guatemala)

*(46) Aprons and Signs—Malawi*

This bright orange and black apron worn by community health volunteers displays the primary health care symbol. Orange and black silk-screened wooden signs displaying the same symbol identify the homes of volunteers who have been trained to dispense chloroquine and ORS. (Ministry of Health, Government of Malawi)



*(47) Flags—Swaziland, The Gambia*

Several countries have used cloth flags, printed with child survival logos, as vehicles for identifying the homes of volunteers who have supplies of ORS packets or special knowledge regarding preparation of water-sugar-salt solutions. Shown here (left to right) are the red and black "happy baby" flag (46 x 105 cm.) from The Gambia and the yellow and black flag (45 x 59 cm.) from Swaziland. (Medical and Health Department, The Gambia; Swaziland Ministry of Health; and CCCD)

# B

## *(48) Kader Home Sign - Indonesia*

Other countries have produced cardboard or metal signs. Shown here is a metal sign (20 x 26 cm) which clearly identifies the home of a "child survival volunteer" and employs the colorful red and black program logo. (Government of Indonesia Department of Health)



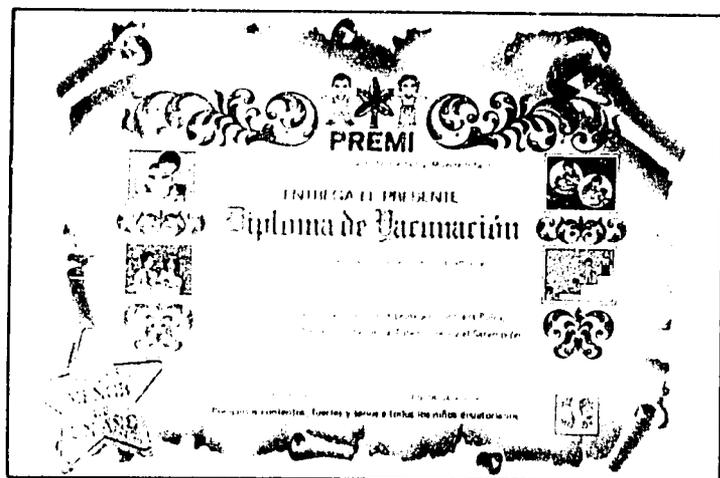
## *(49) Pharmacist ORS Sign - Indonesia*

In countries where pharmacists are major distributors of oral rehydrat salts, posters to advertise this fact clearly are important. Shown here is simple red and black laminated poster (29 x 52 cm.) announcing the availability of the local ORS product, Oralit. (Government of Indonesia Department of Health)

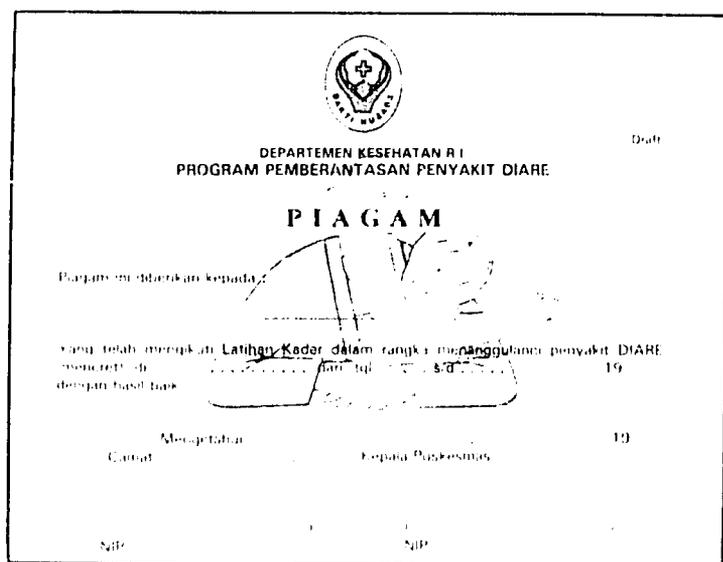


AN INTRINSIC MOTIVATIONAL

One of the challenges of promoting child survival products and services is their relatively high price to both consumers and service providers—not usually in terms of money, but often in terms of time and effort required. Messages which promote the benefits of these products must appeal to difficult concepts such as the absence of illness, or the prevention of dehydration. Materials designed to act as specific, immediate, and tangible rewards for behavior can help fill this motivational gap.



(c)

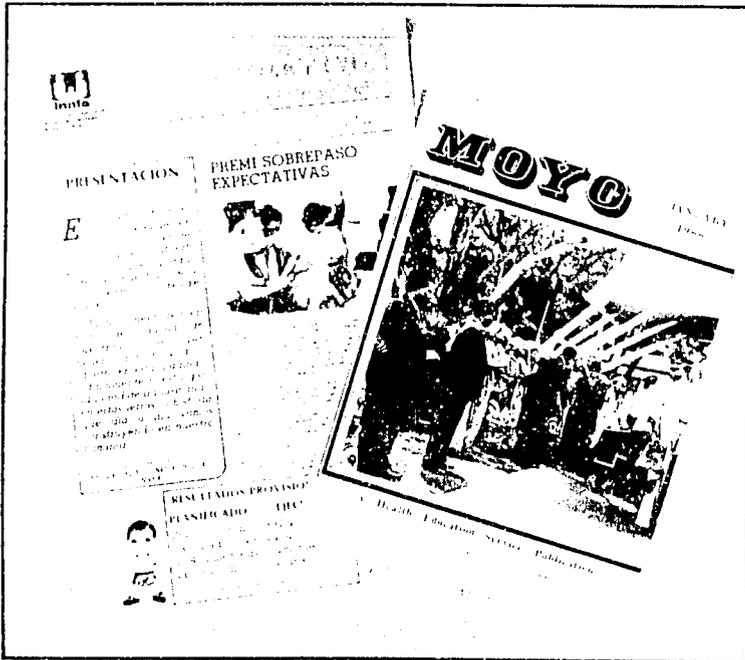


(a)

(30) Diplomas, Ecuador

Testimonials to successful performance are often highly valued, even when they are only made of paper. Shown here are diplomas of several varieties. On the left is a certificate given to volunteer health workers in Indonesia, indicating they have successfully completed training. Above right is a diploma given to mothers who graduated from a radio course in Ecuador on breastfeeding. Above left is a diploma given to mothers whose children are completely vaccinated. The gold star indicates a child was vaccinated before the age of one. When the Ecuador promotion began, many mothers who had already had their children vaccinated walked miles just to receive the highly valued diplomas. (Government of Indonesia Department of Health, PREMI/Ecuador)

# B



(51) *Newletters/Magazines—Ecuador, Malawi*

Newsletters and magazines geared to specific groups can provide both motivation and information to groups which might otherwise feel cut off from colleagues having similar concerns. Shown here are publications from Ecuador (for various audiences involved in the PREMI program) and from Malawi (for health workers). (PREMI/Ecuador; and Ministry of Health, Government of Malawi)

## *52) Contests—The Gambia*

A large number of simple prizes and a few expensive ones provided effective motivation for participation in a water-sugar-salt mixing contest and “lottery” in The Gambia. Mothers who could mix the solution properly received a one-liter cup with the program’s logo. Those who could recite administration instructions also received a bar of soap with the logo. Grand prize winners received cassette recorders. And the communities in which the most women participated received bags of rice and sugar. (See page 94 for further details on the lottery.) (Medical and Health Department, The Gambia)





(53) Lottery Tickets--Ecuador

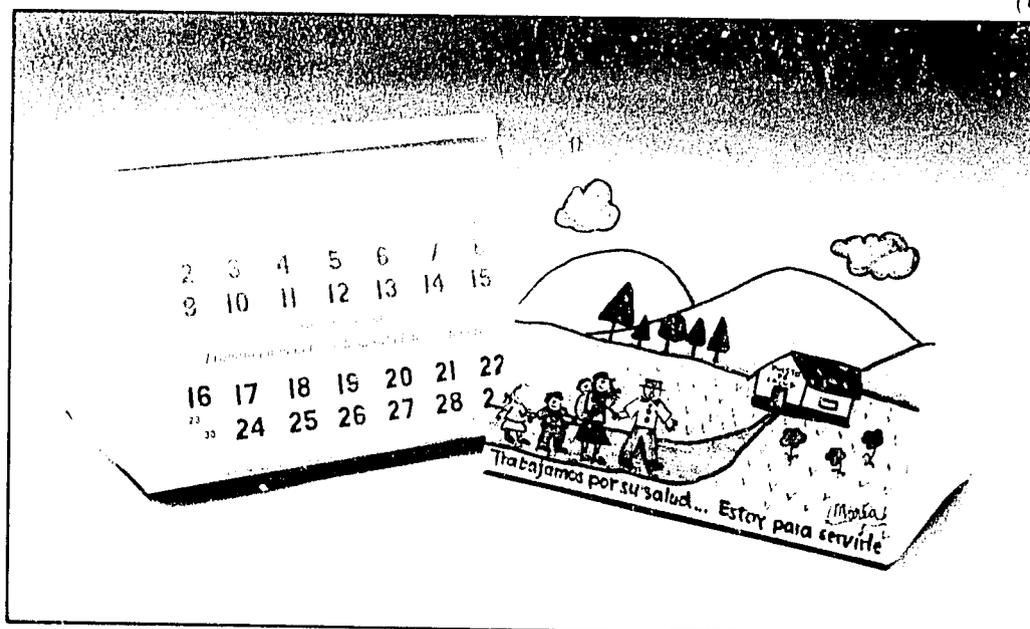
Lottery tickets such as this one were given to mothers and auxiliary health workers who successfully completed a seven-week radio course on four child survival themes. The mothers had to pass four exams, and the health workers had to guide the required number of mothers through the course. The prizes were educational scholarships. Note that the logo shown on this ticket is the earlier version of the one described in sample no. 43 (See also section on interactive media, page 136.) (PREMI/Ecuador)

(a)

Simple reminders sometimes make the difference. The red card with the smile (a) reads, "To care for the pregnant women is a good start for the new life," on one side, and "Besides, give them a smile," on the back. The back also lists four basic rules for prenatal care, and four rules for administering the tetanus vaccination. The calendar (b), illustrated by a child, shows the months color-coded according to five planned periods for different child survival emphases. (Ministerio de Salud Pública y Asistencia Social de Guatemala)



(b)



## INTERACTIVE MESSAGES

*The impact of communication messages can be multiplied when a combination of media—print, radio, television, interpersonal—are integrated and timed to reinforce each other. Radio programs can elaborate on the messages of print materials. Short radio spots can explain and encourage the efforts of service providers. Simple flyers can remind mothers how to identify a volunteer's house. Television spots can reinforce information displayed on posters or sent through the mail. Personal appearances by public leaders at community events can reinforce promotional messages conveyed through other media. Each time a message is repeated via a new channel, it gains both power and credibility.*

GUÍA DE APRENDIZAJE

CURSO DE  
LACTANCIA MATERNA

AMA... MAS

ASOCIACION DE MADRES QUE  
AMAMANTAN SIEMPRE

Ministerio de Salud Pública (División de Epidemiología Educación  
Ejercicio de la Medicina Comunitaria)

1987

LAS 9 REGLAS DE ORO PARA PRODUCIR SUFICIENTE LECHE

1. ENTRE MÁS PECHO MAMA EL NIÑO, MÁS LECHE LE BAJA A LA MADRE.

Si el niño mama pecho varias veces al día, la madre siempre tendrá suficiente leche.

Si el niño toma pepe, no mamará el pecho, y su leche se secará.

POR ESO

1. Dete el pecho más de ocho veces al día.
2. No le de pepe. Así tendrá leche en abundancia.

PAGINA 1

(55) *Breastfeed more, love more*

(printed booklet, radio programs)

“Love...More,” combined nine weekly radio programs with the workbook pictured here to teach the “Nine Golden Rules of Breastfeeding.” Women received their guides from a rural health nurse or community health worker and followed the course on the radio. As a part of the tenth program, mothers filled out the simple exam attached to the guide. Any mother who returned the exam to the health center received a diploma. The program was part of a breastfeeding campaign developed by the Honduras Ministry of Health and PRO-ALMA, a hospital-based breastfeeding project. (Ministerio de Salud Pública de Honduras)

(printed flyers, radio spots, face-to-face instruction)

Communication planners in The Gambia dealt with the problem of a low literacy rate by relying on the carefully timed interaction and mutual support of different media. Specially designed graphic materials were explained in a step-by-step fashion on the radio. The program excerpted here gives information about how to mix water-sugar-salt solution, by referring to the different colored sections of the mixing flyer. Print and radio messages were reinforced through extensive face-to-face interaction. Community health nurses, health inspectors, and volunteers received special training in preparation for the intensive period. The homes of the volunteers were identified with red flags. Again, the meaning of the red flags was explained on the radio. The promotion culminated in a community event called the "Happy Baby Lottery." The mixing flyer served as a ticket to the lottery. (Medical and Health Department, The Gambia; Radio Gambia)



### ***Radio Spot: Mixing Water-Sugar-Salt Solution***

Announcer: Listen everyone, here is some VERY IMPORTANT INFORMATION about the HAPPY BABY LOTTERY. Mothers—do you have your copy of the free Mixing Picture yet? If so, you should have the picture in front of you as you listen to this program. I am going to tell you how to use the Mixing Picture to make the Sugar and Salt Mixture correctly. This is ONE thing you'll need to know to be in the Lottery. Look at the colored side of the Mixing Picture now. Can you see the clean mixing bowl at the bottom of the picture? That is how you start the mixing—with a CLEAN mixing bowl. Now, the colored pictures tell you what you must put in the bowl to make the mixture correctly. The RED picture tells you to add three Julpearl bottles of CLEAN water. The Julpearl bottle must be filled TO THE

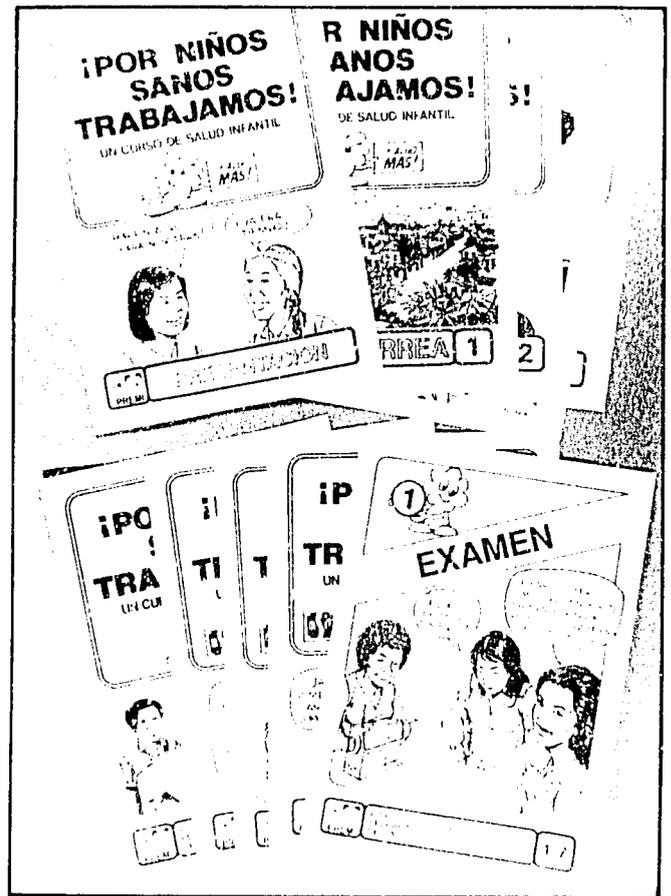
TOP each time. The YELLOW picture tells you to add one level Julpearl cap of salt. The BLUE picture tells you to add eight level Julpearl caps of sugar. Now—turn the picture over to the other side. On the other side, you will see hands using a chew stick to level off the sugar and salt in the Julpearl caps. This is the correct way to measure the sugar and salt: One LEVEL Julpearl cap of salt and eight LEVEL Julpearl caps of sugar. When you have put the sugar and salt in the water, you stir it until it is completely dissolved. AND REMEMBER—if you are using coarse salt or cubed sugar, you must crush it before you add it to the water. Making the mixture correctly is ONE thing you need to know to have a chance to be a winner in the HAPPY BABY LOTTERY.

# B

*(57) Child Survival Course—Ecuador*

(printed booklets, radio programs, group learning sessions)

A seven-week radio course was designed for caretakers of children under five in rural and poor urban areas. The 20-minute programs were broadcast daily and began with an eight-minute episode of a soap opera based upon the child survival themes. Serious participants could obtain a series of ten guidebooks (shown here) from a local auxiliary nurse, and participate in weekly group study sessions. Those mothers completing the daily exercises, attending weekly meetings, and passing a series of four tests on the different program themes received diplomas and an entrance ticket to a national lottery for educational scholarships for their children. Auxiliary nurses took two days of training in preparation for the programs, and received their own guidebooks. Nurses who registered at least eight mothers and graduated four were also eligible to enter a lottery for scholarships for continuing education. (PREMI/Ecuador)



*(58) Child Survival Training Course—Malawi*

(printed booklets, audio cassettes, group learning sessions)

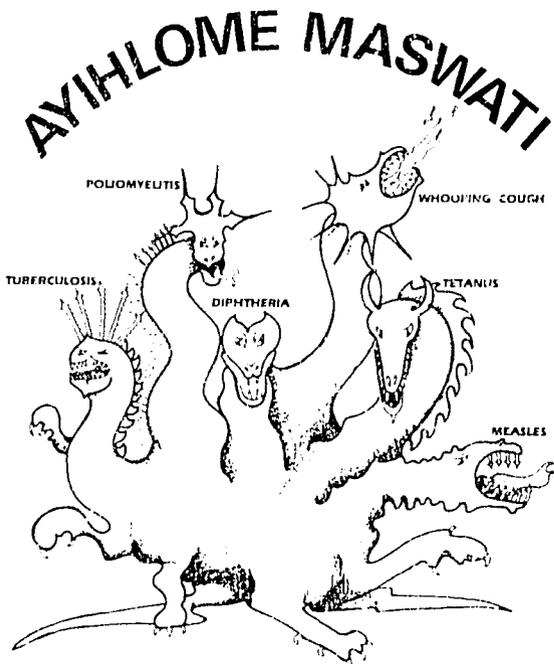


A health worker training course in Malawi addresses the four national child survival priorities: malaria, nutrition, ORT, and EPI. The course is designed to help health workers and their supervisors improve their teaching skills and to communicate effectively with mothers. Audio cassettes are devoted to each of the target areas. One set primarily covers technical aspects of the subject. A second set covers communication strategies, and a third set covers planning of health education lessons. The cassettes provide a variety of group learning exercises. Two types of training guides accompany the tapes—a set for health workers, and a set for supervisors. (Ministry of Health, Government of Malawi; CCCD)

(printed workbook, radio programs, face-to-face instruction)

The workbook pictured here was used by students in grades five and six, in conjunction with eight radio programs broadcast during the school day. The lessons were carefully structured to provide cues and signals for the children's participation, as well as that of a classroom instructor. Some instructions required verbal responses, some required written responses. The radio programs were interspersed with stories, such as the one below told by "Uncle Elijah." A preliminary three-week workshop explained the program to school health nurses, rural motivators, and officers of the Ministry's Health Education Unit. (Swaziland Ministry of Health, Swaziland Production and Information Services)

Name: \_\_\_\_\_  
Grade: \_\_\_\_\_ School: \_\_\_\_\_



**Use this Workbook with the Radio Programmes.  
Do the exercises. Colour the pictures.  
Learn to protect Swaziland from  
the SIX KILLER DISEASES.  
Share this workbook with your family.**

### **Radio Story by "Uncle Elijah"**

Winter was just beginning, so it was already cold. Rains were not expected at this time, but one day it did rain.

Bongie, a school child, thought it would be a slight rain, but to her surprise it rained heavily for two full days. It was so cold and wet that Bongie and other children were told not to go to school. Many babies got sick. They were coughing and sneezing. Bongie's baby brother was also coughing and sneezing. It was very sad for parents who were trying hard to keep their babies well.

Although it was cold and wet, it was immunization day for most of the children. Even though many of them were coughing and sneezing, they had to be immunized. There was a long queue of mothers and fathers with babies waiting to see the nurses.

One nurse was giving each family in the queue a card. Bongie wanted to see what the card was. Her mother's turn came and she was given a card... (etc.)

ANNEX C

BIBLIOGRAPHY

SUGGESTED METHODOLOGY REFERENCES .....	140
MMHP AND HEALTHCOM PROJECT DOCUMENTS .....	143



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