

## Development Communication Report

*In this issue we return to an earlier DCR tradition. We are focusing on a single development sector—health. In an upcoming edition we will look specifically at communication in agriculture. In both these sectors exciting new development approaches are underway: approaches which we feel are both worthy of special attention and applicable to other development sectors as well.*

*A shift in donor agencies (AID, WHO, UNICEF) toward child survival through programs for oral rehydration, immunization, breastfeeding, and infant nutrition has caused health professionals to look for new ways of reaching mothers. Social marketing, behavioral studies, village health practices, and ethnographic research are being combined to introduce complex new child care behavior. Already several of these new programs have had dramatic results. In Egypt, Honduras, Colombia, and Indonesia, among other countries, health and communication professionals in both the public and private sectors have forged a new alliance—one that we feel can broaden and strengthen our audience's ability as communicators to make a positive contribution to development.*

## Communication for Improved Health Services

by Dr. Robert E. Black

In recent years, primary health care programs in developing countries have emphasized the utilization of simple techniques to assure child survival. These techniques include immunizations against important pediatric infectious diseases, oral rehydration therapy (ORT) for diarrhea, and breastfeeding and growth monitoring to prevent malnutrition. Each of these techniques is known to be efficacious, with benefits demonstrated by clinical trials and pilot studies. However, the effectiveness of these techniques in routine national programs depends not only on having efficacious interventions, but also on achieving optimal use by the target group.

### System Constraints

Large investments directed at increasing the availability of these techniques through primary health care have often failed to accomplish the coverage necessary to have a substantial impact on child survival or nutritional

status in the population. Services may be used inappropriately, infrequently, or not all by the intended target groups. Many factors affect the use of services, including perceptions about illnesses, attitudes concerning the appropriate sources of care, availability of "alternative" therapies, perceived quality of services available, distance and cost of services, as well as underlying factors like income, education, social status, and religion. Although these factors affect the use of all health services—traditional and modern, they present special problems in regard to the simple interventions of primary health care, since these are largely preventive, not curative, services. Immunizations prevent later serious infections like measles, oral rehydration therapy prevents dehydration, but does not stop diarrhea, breastfeeding and weight monitoring prevent malnutrition. It must be recognized that preventive services or actions are, in most societies, less readily accepted than therapeutic services. It is an

unfortunate observation that most developing country populations are still reluctant to immunize their children against serious future disease, but adopted, almost as soon as they were available, the use of antibiotics and other medications for common self-limited illnesses.

Immunizations have been used in health programs for many years, yet it is estimated that less than 20 percent of the target age group in developing countries is currently being fully immunized with the six recommended vaccines. This is, in part, due to poor acceptability of the vaccines. A measure of this is that even in areas where vaccines are available, the dropout rates after the first of the required three doses of DTP vaccines are as high as 50 percent. Resistance to immunization comes from a limited understanding of specific infectious diseases and of the protective effect of vaccines.

*(continued on page 2)*

I am pleased that this issue of *Development Communication Report* is dedicated to Health Communications. Today there are so many new health technologies that can save the lives of millions of small children—oral rehydration therapy, immunization, improved infant feeding, and related child survival practices. More research needs to be done, but clearly the technologies we now have need to be rapidly adopted by health systems throughout the world. Communication is a fundamental part of this technology transfer.

Experiences from Honduras, The Gambia, Egypt, Bangladesh, Colombia, Indonesia, and Swaziland demonstrate that mass media, social marketing, and strategies for behavioral change work when well integrated into health delivery systems. This issue, timed to coincide with the second International Conference on Oral Rehydration Therapy, ICORT II, presents promising new findings in this field.

I hope that readers will be encouraged to apply some of the successes outlined here in their own programs.



M. Peter McPherson, Administrator  
Agency for International Development



## Development Communication Report

### In this issue . . .

Communicating Health Services . . . . .	1
McPherson's Message . . . . .	1
ORT Project in Honduras/The Gambia . . . . .	3
Two-Way Radio for Health/Guyana . . . . .	5
Nutrition Communication . . . . .	5
Social Marketing: Consumer Focus . . . . .	6
Swaziland ORT Project . . . . .	7
Focus on Behavior . . . . .	7
Formative Research: Pretesting . . . . .	9
Funding Organizations & Health . . . . .	10
A Communicator's Checklist . . . . .	11
Health Communications Bibliography . . . . .	11
Egyptian ORT Campaign . . . . .	13
A Worksheet for Mothers . . . . .	15
R L A P Evaluation Results . . . . .	17
On File at ERIC . . . . .	18
MEDEX Primary Health Care Series . . . . .	19
Colombian Immunization Crusade . . . . .	20

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Readers are invited to submit typed manuscripts of no more than 1000 words, and to send in photographs.

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### Communicating for Acceptance

Health education and communication efforts are critical elements in improving individual acceptance of vaccines and of community participation in immunization programs. In particular, communication efforts are needed to involve informal groups, especially women's groups, schoolteachers, and community leaders in promoting preventive health initiatives. (See *Colombian Crusade* in this issue.)

Oral rehydration therapy has a demonstrated efficacy in correcting dehydration and is felt to be an important household intervention to prevent dehydration, malnutrition and death. Recognition of the usefulness of this simple, inexpensive technology has led to its incorporation into national health care programs in most developing countries of the world. In spite of this recognized importance for the last decade, ORT was estimated by the World Health Organization to be appropriately used for only 4 percent of diarrheal episodes in children of developing countries in 1983. It is obvious, from evaluations of some ORT programs, that information on proper treatment of diarrhea is not being conveyed adequately to the public. Furthermore, this lack of knowledge is often abetted by the ignorance of the health workers, who are often themselves not treating diarrhea correctly.

The communication of the ORT message to the public and to health workers at all levels is of increasing importance. The ORT message offers even greater challenges than the immunization message (primarily motivation to accept vaccination.) The ORT message must not only motivate individuals to use the "new" treatment but also must teach them how to use it. The message must be reinforced by health workers and community leaders, who must themselves be educated in the indications for and use of ORT. Furthermore, ORT must be used for every diarrheal episode, as many as eight per year in developing country children, not only on a few occasions as with immunizations. It is necessary that the new behavior become routine to the user, further accentuating the need for continuous communication of a consistent message and reinforcement of appropriate behavior.

### Communicating Education

Some health programs can be cited for their successful use of communications techniques to achieve greater use of ORT. The Oral Therapy Extension Program of the Bangladesh Rural Advancement Committee was initiated five years ago. This program is built around oral rehydration workers who receive training in a five-day course, three days in class and two in the field, and further training in teaching methods and communication skills to enable them to effectively deliver their ORT messages. These workers visit each household within their area and incorporate selected important points about ORT into their conversations with community residents. As they explain how to prepare the oral rehydration mixture, they actually prepare it in the home and then supervise the mothers in its preparation. The project's built-in evaluation system

has demonstrated that 98 percent of households were able to make a safe, effective oral rehydration solution and that mothers remembered the key ORT messages as well after six months as after one month.

### Effective Mass Communication Strategies

Mass communication has also been used successfully in ORT programs. The Honduras Mass Media and Health Practices Project, implemented by the Academy for Educational Development, used a combination of radio, printed material, and interpersonal communication through health workers to popularize use of a new ORS product, *Litrosol*. In an Egyptian project, developed jointly by the government and the John Snow Health Group, ORT use rose dramatically as a result of sophisticated communication techniques.

### Conclusion

These interventions illustrate several important steps in communication of health messages, namely: 1) analysis of the local vocabulary and beliefs, in the initial stages, to enable optimal message design and implementation; 2) pretesting as many messages, materials, and methods as possible; 3) focusing on carefully selected sets of objectives and behaviors; and 4) monitoring and improving the campaign while it is in progress.

Experience has shown that an understanding of cultural values and inclusion of health education and communications is essential to the delivery of basic health services. A WHO Expert Committee in 1983 concluded that "health, science, and technology can make a real impact only if the people themselves become full partners in health protection and promotion," and that health education must be integrated into health programs at all stages. ■

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## Vaccine Development Agreement

In September 1985, AID signed an agreement with the U.S. Public Health Service to develop new and improved vaccines for preventable diseases that plague developing countries. The first two vaccines to be tested under this program are an aerosolized measles vaccine, developed by Dr. Albert Sabin, which is expected to protect children as young as six months, and a vaccine against rotavirus diarrhea, the single most common cause of serious diarrhea in infants in most parts of the world.

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21

# Communication Works Across Cultures: Hard Data on ORT

by Anthony Meyer, Dennis Foote, and William Smith\*

The Gambia and Honduras are extremely different countries. Yet from 1980 through 1984 the same communication and social marketing strategy was applied to teaching oral rehydration therapy (ORT) and related child survival practices in both countries. Within that strategy, each country developed campaigns that had their own character, peculiarities, and challenges. Nevertheless, data bridging three years and the two cultures show almost identical results, including sustained adoption of ORT and significant improvement in nutritional practices. This article will report on the most interesting similarities, differences, and data from the two countries, based on recently published longitudinal studies conducted by Stanford University and Applied Communication Technology.

## The Setting

West Africa and Central America have a tremendous common problem: infant mortality. In both Honduras and The Gambia, diarrheal dehydration is the leading cause of death. Yet teaching about ORT to prevent dehydration due to diarrhea has major local constraints. There is a 3 percent female literacy rate in The Gambia, along with severe difficulty among 48 percent of females in interpreting two-dimensional pictures or drawings without assistance, a difficulty sometimes called "pictorial

\*The opinions expressed here are the authors' and are not represented as the opinions or policies of AID.

illiteracy." In both countries, the practice of purging and withholding food during diarrhea was common. In almost everything else relevant to an educational campaign, the countries were different. Spanish language and culture contrasted with The Gambian Wolof and Mandinga languages and tribal customs. Nuclear family dwellings of six to ten members in Honduras contrasted with extended family compounds of up to 100 members, including multiple wives, in The Gambia. Numerous private radio stations and publications in Honduras contrasted with one national station and relatively few print materials in The Gambia. In Honduras, locally packaged oral rehydration salts (ORS) were promoted under the product name of *Litrosol*. In The Gambia, a water/sugar/salt (WSS) home-mix solution was promoted, while World Health Organization ORS packets were reserved for clinic use.

## The Campaigns

The educational interventions in Honduras and The Gambia to teach ORT and related practices can be characterized as "campaigns" in the sense that highly specific objectives were pursued and multiple channels—radio, print materials, direct contact—were coordinated to support these objectives. Yet the interventions in Honduras and The Gambia parted with usual campaign practices because of their extended vision. Although emphasis shifted among topics for limited periods of time during the interventions, the key communication methods and procedures for con-

ducting the interventions would not end abruptly but become an ongoing part of the public health education process and the health care delivery system.

What methods and procedures were applied? The interventions in Honduras and The Gambia adapted lessons learned from past experiences, drawing on the disciplines of social marketing, development communications, anthropology, and behavioral analysis in addition to the history of clinical experiences related to each objective. The methodological sequence was as follows:

- Village-level investigations were conducted to understand the local behavior, concepts, and vocabulary related to campaign objectives and to develop an audience profile. Focus groups, direct observations of practices in households, and in-depth interviews of local health personnel were used.
- Educational objectives were ranked in terms of what the audience needed to know and do; how feasible and costly the recommended practices were; how the recommended practices related to already prevalent practices; and what would reinforce trial and adoption of the recommended practices.
- Messages were developed and prototype materials were pretested on the basis of audience and product analyses.
- Multiple channels—media, print, face-to-face—were coordinated to carry simple, noncontradictory messages that relied on the functional strengths of each channel.
- Extensive monitoring of all systems permitted adaptation over time.

## The Evaluation

Stratified, random panels of approximately 750 to 1,000 households with posttest controls, were surveyed in each country—nationwide in The Gambia (600,000 population) and in Health Region I of Honduras (400,000 population)—in repeated waves over a three-year period. In Honduras, a mortality study in Health Region I and additional surveys to assess campaigns to support other health intervention activities were also conducted.

The overall evaluation plan examined a sequential model of changes, recognizing that changes in any individual does not necessarily follow the same pattern:

- Exposure—Was the audience involved in the campaign and how?
- Knowledge—Did the audience learn the campaign information from its exposure?
- Behavior—What did the audience do differently subsequent to their exposure?
- Health Status — What were the health outcomes?

The strength of an evaluation of this nature and the attributed impact of an intervention does not rest on one indicator alone, such as increased learning about ORT. Rather the power of such an evaluation is in the conver-

(continued on page 4)



Women in The Gambia learn the correct ORS recipe using a color-coded flyer and listening to broadcasts of how to interpret it.

(ORT continued from page 3)

gence of indicators across the "causal chain" and in the timing of changes of the sample population with specific intervention messages. The key objectives were evaluated in terms of the above profile of significant, sustained change in both countries. The magnitude of observed change substantially exceeded that which is commonly expected from commercial advertising or public education campaigns. In this respect the power of the intervention methodology is confirmed. Highlights of the evaluation will be reported here. Full reports and project descriptions are available as noted below.

### The Gambia

**Pictorial Illiteracy.** One technique used with strong impact in The Gambia was the "Happy Baby Lottery." This was a contest of skill rather than chance and proved successful in overcoming the difficulty many Gambian women experience in interpreting two-dimensional graphics. Flyers with color-coded pictographic instructions for mixing the WSS solution were distributed nationally as "lottery" tickets. The radio served as the first line of interpretation. Mothers were instructed how to mix the WSS by being verbally led from the sugar section of the flyer, coded blue, through the salt section in yellow, to the water section in pink. Soda bottle caps with sugar and salt, and soda bottles of water were used to illustrate the recipe. Radio also directed mothers to second- and third-line sources of instructions. Selected village women who had been trained by health workers in how to instruct mothers in the mixing of the solution, were identified by red "happy baby" flags over their homes. For treatment of severe cases of diarrhea, the radio directed mothers to the health workers. Mothers were invited to attend one of 72 mixing contests being held around the country over a five-week period. Correct mixing of the WSS solution during the contest earned a plastic container; correct answers to questions about the administration of the solution earned a bar of soap. These winners were then eligible for a grand finale drawing of 15 who received radios as prizes.

**Gambian Learning and Behavior Changes.** The "Lottery" in The Gambia marked the beginning of a two-year effort to teach WSS and related diarrheal control and infant feeding practices. The evaluation shows that the mothers learned about ORT and changed their behavior accordingly. An overview of the two-year data set indicates sustained adoption of WSS solution to treat diarrhea.

Gambian mothers first had to learn of the existence of a water/sugar/salt mixture for home treatment. Awareness reached a high of 90 percent of mothers by the end of the campaign. They then had to learn a formula for mixing the solution at home. The formula required that they know the three ingredients and the correct amounts of each. Questions about these were combined into an index: by the end of the campaign, 70 percent of mothers and all health workers achieved a perfect score of this mixing index.

These gains in knowledge were translated into changes in behavior. One result of having

an appropriate home treatment for diarrhea was that more cases were treated at home; the percent of cases treated at home was 17 percent at the start, but averaged more than 50 percent for the entire second year.

WSS displaces virtually all other home treatment: an average of over 90 percent of cases in the entire second year were given WSS if they were treated at home. Coverage of all cases with WSS treatment rose quickly and stayed high during the second year. At the beginning of the campaign only 4 percent of all diarrhea cases were treated with WSS, but during the second year an average of over 50 percent were treated with this solution.

Other changes also resulted from campaign messages. The inappropriate practice of withholding foods other than breast milk during diarrhea fell to a tenth of its initial level (dropping from 32 percent to 3 percent). The feeding of solid foods during diarrheal episodes rose from 14 percent at the beginning of the campaign to 45 percent.

### Honduras

The campaign in Health Region I of Honduras emphasizing ORT and related diarrheal control and infant feeding practices lasted two

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*"The magnitude of observed change substantially exceeded that which is commonly expected from commercial advertising or public education campaigns."*

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years, then expanded to the national level and to other topics during the third year—immunizations, malaria control, and compliance with tuberculosis treatment. The same method of village investigation, behavioral analysis, pretesting, integrated use of multiple channels, and monitoring were applied in developing and implementing a sustained, phased, public health communications intervention.

Honduran mothers also learned and changed their practices significantly—and fewer of their children died of dehydration due to diarrhea.

**ORS Usage.** *Litrosol* was a newly introduced product, so there was no awareness of it before the campaign. Within six months of starting the campaign, however, half the mothers could recall the product name. The percent of mothers who could recall the name *Litrosol* leveled off at about three-quarters of all women during the campaign's second year.

At the beginning of the campaign none of the Health Region I mothers had used *Litrosol*, but within six months more than one third (37 percent) of all surveyed mothers had tried it. By the end of the campaign over 60 percent of mothers had used *Litrosol*. Notably, not only had most mothers tried it, but the case treat-

ment level with *Litrosol* rose to over 35 percent of all cases within two years. Data from evaluation of follow-up efforts after the initial campaign indicate that at the end of three years, use rates were still at an impressive 30 percent of all cases.

**Mortality Drops.** Tracing changes in mortality in developing-country settings with limited resources was the greatest challenge to evaluation. Although tracing mortality could not be done adequately in The Gambia, in Honduras there were regional mortality statistics of sufficient reliability, covering an adequate time period, whereby a significant impact on mortality could be documented. Widespread use of *Litrosol* appears to have reduced diarrhea-related mortality by a substantial amount. The proportion of deaths involving diarrhea among children younger than five fell from 40 percent in the two years prior to the campaign to 24 percent two years later. Total mortality also dropped by a slightly smaller amount.

The campaign methodology has subsequently been applied to tuberculosis, malaria, and immunizations as well as diarrhea. These campaigns also achieved high levels of exposure and knowledge change. For example, in the malaria campaign, knowledge that the reason for having one's house sprayed was to kill mosquitos nearly doubled, from 49 percent before the campaign to 94 percent afterwards.

### Program Expansion

The project has been expanded into the new AID initiative, HEALTHCOM, which will use experience gained here and work in up to ten new countries, broadening the focus on ORT to include immunization, infant nutrition, breastfeeding, vector control, and other child survival technologies.

Reports on the Mass Media and Health Practices Project intervention and evaluation are available by writing to HEALTHCOM, c/o DCR.

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## PTC'86 Forum

The Eighth Annual Forum of the Pacific Telecommunications Council will be held January 12-15, 1986 in Honolulu, Hawaii. PTC'86 will focus on "Evolution of the Digital Pacific." English, Japanese, and Spanish simultaneous interpretation will be provided at plenary sessions. For information contact: Pacific Telecommunications Council, 1110 University Avenue, Suite #308, Honolulu, Hawaii 96826. Telephone (808) 941-3789. Telex 7430550PTC

# Two-Way Radio for Rural Health Care Delivery

by Michelle Fryer, Stanley Burns, and Heather Hudson

Over the past six years, the MEDEX<sup>®</sup> two-way radio network has emerged as the most effective and reliable system of its kind in Guyana. Originally designed to ease the communication difficulties of medical personnel in the field, this two-way radio system is now fully incorporated into the administration of primary health care.

## Background

Rural health care delivery poses formidable problems in developing countries. Not only are there shortages of physicians and facilities, but lack of adequate transportation and communications hinders the efforts of health care providers in the field. Faced with vast rural and remote areas without medical services and an acute national shortage of physicians, the Guyana Ministry of Health embarked upon a program in 1976, designed to train paraprofessional health workers, "medex," to serve these isolated areas. (Medex is the abbreviated form of "extension of physician" in French.) Initial funding for the project came from the Canadian International Development Research Centre (IDRC) and the U.S. Agency for International Development (AID), with training assistance from the University of Hawaii.

After their training in the capital city of Georgetown, medex were posted throughout the country to become the "front line" of the health care delivery system. However, once in the field, the medex were effectively isolated from their supervisors, their sources of drugs and supplies, and from each other.

The only developed transportation systems in Guyana are along the coast. Inland is the *riverain* region where transportation is primarily by boat. Farther inland is the hinterland, where jungle gives way to savannah, and where four-wheel drive vehicles and motorcycles can be used only in the dry season. In the rainy season, medex may be cut off from the people they serve for weeks. Infrequent air service links Georgetown with the larger interior towns.

Like the transportation system, the national telecommunications system is developed only along the coast. Communication by letter to the interior could take weeks or months. In an emergency, medex would try to send a message through one of the private radio systems, which were often inaccessible and unreliable. As a result of the limited transportation services and lack of communications, medex were unable to summon assistance in emergencies, to follow up on patients who had been sent to a hospital for treatment, or to order urgently needed drugs and supplies. Medex administrators and trainers were also concerned about the lack of contact with medex in the field who could not be supervised and could not take time away from their posts for continuing education.

To address these needs, AID funded a pilot project from 1979 to 1985 which established a

dedicated two-way radio system for the MEDEX program. The initial network of ten sites has now been extended to twenty-eight sites, with plans for at least ten more.

## System Design

Site-to-site and site-to-headquarters distances range from 48 km to in excess of 400 km. Topographical constraints and extremes of distances coupled with acceptable reliability requirements, dictated the choice of a high-frequency, single-sideband two-way radio system.

The system design, chosen in consultation with the Guyana Telecommunications Corporation (GTC) which operates the national telephone network, is a low-powered system operating on three frequencies with sound quality similar to that of a taxi radio.

During the first phase of the project, portable generators were used at some sites and solar panels at others to provide the system's power. After a year it was found that fuel for the generators was expensive and difficult to

obtain, and that some generators had broken down. No problems were encountered with the solar panels, so generator-run units were replaced with the more efficient solar installations.

Each site is equipped with a fully transistorized 25-watt Stoner SSB-40A transceiver, a three-element dipole antenna, a 12-volt automotive battery, a five-watt solar panel for trickle-charging the battery, and a set of hand tools.

## Operation and Maintenance

The approach taken to operation and maintenance of the system is as important as a sound technical design. To ensure that Guyanese personnel would be able to take full responsibility for the system, the project provided: adequate training; local installation and maintenance; effective program management;

(continued on page 16)

*\*For the purpose of this article, medex refers to the paraprofessional health worker and MEDEX to the program.*

# A Communication Strategy to Improve Nutrition in Indonesia

by Marcia Griffiths and Elizabeth Nobbe

The ability to meet the health needs and provide the essential health services to a community is both a promise and an expectation of a primary health care (PHC) project. Another important goal, establishing community-supported health care services, does not necessarily result in measurable or easily documented benefits that national governments may demand before assisting a local health service. Social marketing offers a way out of this dilemma. It helps to develop programs based on the needs and resources of the families that health programs serve, and at the same time it identifies types of behavior change that can be documented.

As an experimental project, the Nutrition Communication and Behavior Change Component (NCBC) of the Indonesian Nutrition Development Program (UPGK) showed how social marketing could further the national program's goal of significantly improving the nutrition of Indonesia's young children and pregnant and nursing women. The social marketing approach successfully developed nutrition communication materials that were responsive to the needs, desires, and resources of the communities, particularly of the mothers and volunteer nutrition workers.

The UPGK, begun in 1974, popularized community nutrition. Its clear, easily communicated and measured goal—the monthly increase in weight by each child under five—is

promoted by a trained corps of volunteer nutrition workers, *kaders*, through a monthly weighing program.

## NCBC Project Development

Between 1977 and 1979 Dr. I.B. Mantra, NCBC Director, established administrative and community infrastructures modeled after UPGK in five culturally diverse areas in Indonesia.

In mid-1979, with technical assistance from Manoff International, the project departed from the approach of the national plan and embarked upon an unprecedented course with the formative evaluation of educational messages and a communication strategy. The success of the NCBC Component was to be judged by whether education—as the sole intervention—could produce significant improvements in the nutritional status of children and the improved nutrient intake of pregnant and lactating women in project communities.

The first step was to design and execute qualitative research on the health and nutritional problems of children under three and pregnant and nursing women, consisting of in-depth household interviews, concept testing with mothers, and focus group interviews with *kaders* and community opinion leaders.

(continued on page 14)

# A Focus on the Consumer: Social Marketing for Change

by L. Edward Lucaire

Social marketing (SM) is neither magical nor mystical. It is merely the application of commercial marketing principles to advance a social cause, issue, behavior, product, or service. SM has added a framework to social efforts that heretofore lacked organization, and has inspired projects that otherwise might never have been undertaken.

In the United States, SM techniques have been particularly successful in the health field. The National Cancer Institute used marketing techniques to change the behaviors of U.S. women and health professionals regarding breast cancer detection. The National High Blood Pressure Education Program, using these same marketing techniques, has increased patient compliance with antihypertensive regimens. Likewise, the American Cancer Society developed a sound marketing program to convey the benefits of giving up smoking, especially for teenage girls.

Although advertising and other communications are central to social marketing, the discipline also depends upon other elements of what is called the marketing mix: product, price, place, and promotion. Social marketing is a cyclical process involving six steps: analysis; planning; development; testing; and refining elements of the plan; implementation; assessment of in-market effectiveness; and feedback.

## Developing Country Applications

In developing countries, health has similarly been the greatest beneficiary to date of applied social marketing techniques. Family planning programs and oral rehydration therapy (ORT) projects have used SM techniques effectively in numerous Third World countries. For instance, in Honduras oral rehydration salts (ORS) were first marketed in 1980 under the brand name of *Litrosol*. *Litrosol* was heavily advertised on television and radio, and widely distributed through the existing health care system and by local village volunteers. By the end of the first year of the ORT campaign, 49 percent of the mothers had actually used *Litrosol* and 71 percent could recite the radio jingle composed for this campaign. More importantly, during the two-year campaign period, diarrhea-related mortality in children under the age of five dropped from 48 percent to 25 percent. Similar ORS marketing results have been achieved in Egypt and The Gambia. About 50 percent of Egyptian mothers had used ORT after one year of the program and over 50 percent of cases for the second year of the campaign in The Gambia used ORT.

These successful ORT efforts have attracted the interest of other international organizations involved in child survival, and social marketing is being integrated into their overall strategy. Last year UNICEF and the CRS

Company, Ltd. in Nepal signed a contract to market their own oral rehydration salts under the brand name *Jeevan Jal*.

## Social Marketing for Contraception

Social marketing has been even more widely applied in the sale of contraceptives in developing countries. Contraceptive social marketing (CSM) programs are well-established in Bangladesh, Sri Lanka, India, Thailand, Nepal, Colombia, El Salvador, Jamaica, Mexico, and Egypt. More recently, programs have been established in Honduras, Guatemala, Barbados, St. Vincent, and St. Lucia. SOMARC (Social Marketing for Change) is a project funded by the US Agency for International Development (AID). It is working with existing CSM programs and also helping to launch new CSM programs in The Dominican Republic, Ghana, Indonesia, Kenya, Tunisia, Costa Rica, and other countries. Other health topics such as immunization, breastfeeding programs, and disease prevention efforts may also benefit from a marketing perspective.

Market research is an essential aspect of the marketing process. Research may be conducted to help make marketing decisions on brand names, pricing, target audience, product preferences, awareness attitudes, etc. For the most part, local private-sector market research firms are hired to conduct contraceptive social marketing research.

Contraceptive products are often distributed through AID, although they also are available through other sources such as the International Planned Parenthood Federation or directly from manufacturers.

Local distributors and wholesalers are often used to channel products to hospitals, clinics, and retail outlets. Some programs like Egypt's Family of the Future (FOF) developed its own distribution system and a staff of medical representatives to administer the program. Contraceptive social marketing programs in Nepal and Bangladesh have their own sales forces as well as local advertising agencies who promote, publicize, and advertise contraceptive products. Thus, CSM programs are successfully functioning as legitimate marketing organizations in developing countries, and are using local private sector resources in the process.

The results of these programs are encouraging. In Egypt, 31.2 percent of contraceptive-age women and men use Family of the Future products. More importantly, FOF's aggressive promotion of its products has expanded the public's consciousness about family planning. This promotion, almost certainly, has greatly contributed to the increased use of all contraceptives in Egypt. The National Family Planning Board in Jamaica, which produces *Panther* condoms and *Perle* oral contraceptives,

has about 80 percent and 50 percent of their respective contraceptive markets. Profamilia, the contraceptive social marketing program in Colombia, has a 31-percent share of that contraceptive market. In all these countries, birth rates are declining.

## Conclusion

Social marketing has proven successful despite significant obstacles like cultural and religious resistance, lack of knowledge about the topic, illiteracy, and pricing constraints. But SM is no shortcut for success: it requires both experience and sensitivity to local conditions. Fortunately, many developing countries now have their own marketing resources. Local private-sector advertising and marketing agencies are helping public and private sector programs. In countries where local resources are scarce, AID has created several programs to provide technical assistance in social marketing. These include SOMARC, PRITECH, and HEALTHCOM. Contact the Clearinghouse on Development Communication, or your local USAID Mission for further information on any of these assistance programs. ■

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## Child Survival Management Course

A six-week child survival management course, including a two-week field practicum in Haiti is being offered by Boston University School of Medicine and School of Public Health from March 1 - April 15, 1986. This is an integrated course with enrollment limited to 25, intended for participants from countries with limited resources. It provides training in: essentials of child survival; introduction to health economics; management methods for health services; microcomputer applications; integrating health facility and program design; community participation; and field study techniques.

Applicants should have completed the equivalent of a bachelor's degree or other comparable technical or professional training after high school. Applications must be received by January 15, 1986. For application information write to: Management for Child Survival Course, Office of Special Projects, Room A-310, Boston University School of Public Health, 80 East Concord Street, Boston, Massachusetts 02118, USA. Telephone (617) 247-6018. Telex: 200191BUHPI

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# A Focus on Behavior: The Role of Health Practices Studies

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by Paul Touchette

Most health education programs use knowledge and attitude change as the primary measure of success, but knowledge is often a poor predictor of either use or proper use. Ninety percent of women in the Bangladesh Rural Advancement Committee (BRAC) rehydration therapy program learned the *Seven Points to Remember* about oral rehydration salts (ORS), but only eight percent of women in some locations of the program area actually used ORS to treat diarrhea. These results are common among development programs—it is often easier to teach facts, even change attitudes or beliefs than to alter behavior. This realization has led planners to focus on the specifics of a particular behavior, trying to assess not only what a mother must learn to improve her family's health, but how she already behaves and why she might not want to change.

Within the context of child survival, the mother is faced with numerous decisions such as:

- Why should I give up an old remedy for a new medicine?
- Why should I take a healthy child to a clinic to be stuck with a needle and then be fretful all night?
- How do I remember the correct ingredients in a home-mixed ORS solution?
- How do I determine whether my child is malnourished or just small?
- When do I introduce weaning foods and how do I determine which ones are best?
- How do I discuss having fewer children with my husband when he wants to have another male child?

Each question suggests a complex set of behavioral responses. New health practices require new responses, many of which are not well understood, believed in, or practiced. The role of behavioral analysis within this context is to probe the reason why a given practice continues, how a new health practice might be best introduced, and how such a practice can be designed, presented, and used

to ensure that it is maintained over time.

## Why Behavior Does Not Change

The experimental analysis of behavior suggests six circumstances that may contribute to the absence of desirable behavior, either singly or in combination: 1) Necessary skills or knowledge may be absent. For example, rural mothers often know that it is good to boil water, but they do not understand that boiling the water actually kills the parasites they fear. 2) The ability to identify when to alter the behavior may be undeveloped. Mothers know that some foods make their children ill, but do not know that the longer the food sits after preparation the more likely it is to cause illness when fed to their children. 3) Necessary materials or implements may be unavailable. ORS packets, for example, are often out of stock. 4) There may be no positive consequences for engaging in the behavior. Most preventive behavior, for example, produces no immediate results, but is beneficial in the long run. 5) There may be positive consequences for engaging in incompatible behavior, such as fasting during diarrhea. Fasting does cause the child's stool volume to decrease—a goal mothers want to achieve. 6) There may be punishing consequences which discourage the desired behavior pattern. During rehydration, for example, a child may vomit, or the diarrhea may appear to increase.

(continued on page 8)

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# Reaching Mothers in Swaziland: Preliminary Findings of a Child Survival Program

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by Robert Hornik and Pamela Sankar

*[This is a brief summary of the results from a still ongoing evaluation of the Swaziland Communication for Child Survival Project (HEALTHCOM). A final report will be published shortly with details that could not be incorporated into this version. It will be available from the authors.]*

The Swaziland Diarrheal Disease Control campaign was a collaboration of the Ministry of Health of Swaziland, The Combatting Childhood Communicable Diseases project, and the AID Communication for Child Survival (HEALTHCOM) Project. It was based on earlier work in Swaziland as well as the previous Health Communications programs in Honduras and, in particular, in The Gambia. As in the other programs, it relied on a combination of mass media and face-to-face channels in an attempt to change practices related to the treatment of diarrheal disease.

## Campaign Preparation

The preparatory phase of the campaign began in April 1984, with the formal campaign running from September 1984 through March

1985. The coordinator of diarrheal disease control activities, Gladys Matsebula, two health educators from the Public Health Unit of the Ministry of Health, Alfred Mndzebele and Bongani Magongo, and a technical advisor from the Academy for Educational Development, Dale Huntington, planned a three-pronged campaign: 1) radio programs to be developed in an intensive radio workshop and broadcast on current development programs carried on the national radio system; 2) printed materials including a flyer with mixing instructions and posters for display at health clinics and elsewhere; and 3) workshops to train the health staff, other extension personnel, and local volunteers in treatment of diarrheal diseases including use of oral rehydration therapy (ORT) for dehydration. Local volunteers and others involved in information dissemination were given yellow flags to display outside their homes to indicate they knew how to administer ORT. Eighteen staff training workshops covering about one third of the country were held during the first months of the campaign; 88 radio programs and spot announcements were produced; and 260,000

mixing flyers and 7,500 posters were printed and distributed.

The campaign focused on a few objectives, specifically 1) acceptance of a home-mixed, water/sugar/salt (WSS) solution as a treatment for diarrheal dehydration; 2) continued feeding during episodes of diarrhea, and 3) feeding with special foods after diarrheal episodes. The campaign particularly emphasized the introduction of a new formula for mixing the solution—one liter of water, eight soda bottle capfuls of sugar, and 1/2 capful of salt. This new formula replaced a previous one that contained one capful of salt which project medical advisors believed risked toxicity.

## Campaign Evaluation

The evaluation, conducted by the Annenberg School of Communications at the University of Pennsylvania, reveals preliminary results suggesting that the campaign achieved noteworthy success, particularly in rates of adoption of recommended practices. Data sources included before- and after-campaign

(continued on page 8)

### What the Behaviorist Does

Behavioral analysis is designed to identify the relevance of each of the above six categories within the context of a specific culture, behavior, and/or individual. The behaviorist observes, questions, and tests behaviors, looking for the:

- cost to the individual of engaging in new practices,
- compatibility of new practices with existing patterns of behavior and cultural expectations,
- complexity of new practices,
- perceived and actual antecedents of a given practice,
- perceived and actual consequences of the practice, and
- observability of the target practice or its direct by-product.

### How Behavioral Analysis Helps

During an immunization program in Honduras, behavioral observation and in-depth interviews in rural clinics revealed that many mothers were bringing in children who had already completed their vaccination series. Mothers could not read the complicated vaccination card; they did not know the number of doses needed to complete each series, so did not know when their child had finished the vaccination series. Mothers did, however, recognize the type of vaccination when it was applied because they observed where it was being applied on the child's body: polio—orally, measles—deeply in the arm, tuberculosis—more superficially in the arm, and DPT—in the hip. Nurses were chastising mothers, who frequently had walked miles to the clinic, because they had brought in a child who had already been immunized. Consequently, these mothers often advised neighbors not to go for needed vaccinations in the series.

Analysis of this behavior led to the development of a strategy that focused on designing an immunization card that mothers could understand, and that also served as positive reinforcement for completing the immunization series. The card graphically depicts each immunization and the number of shots needed to complete the series. The card functions as an educational tool for the health worker, a reminder for the mothers, and a reward device health workers use to praise mothers.

Another example comes from The Gambia, where the original design of a national "Happy Baby Lottery" was to be a standard promotional gimmick—the contest was to be announced on radio; numbered tickets with pictures of ORS mixing instructions were to be distributed; and a random drawing of lottery numbers would select the winners. Instead, an imaginative, behaviorally-inspired twist was added and successfully executed. Gambian women had to correctly mix an ORS solution in public. They learned to mix the solution through special radio broadcasts that explained the mixing pictures on a flyer that was distributed throughout the country. Actual mixing contests were then held in villages throughout the country. Local women demonstrated their ORS mixing proficiency before a

judge and become eligible for a grand prize drawing. The "Happy Baby Lottery" moved beyond a simple promotional activity to being an exciting and effective vehicle for helping mothers to actually practice the new behavior on a massive scale.

### Some Useful Principles

These two examples help demonstrate how behavioral approaches such as careful observation and informal incentives can be applied to field programs. Some of the most salient principles emerging from recent behavioral studies include:

- Observation of behavior within the broad context of the culture in which it is found.
- Skillful arrangement of events so that reinforcement follows the desired behavior. Behaviorists argue that individuals can do a great deal to reinforce their own behavior.
- Individual recordkeeping or monitoring of behavior, for example, is of extreme importance. Graphs, visuals, and other concrete representations of progress can be important reminders and reinforcers for individuals adopting difficult new behaviors.
- Decisions of when and how to end a behavior change program should be systematic to ensure continued maintenance of the new practice. Fading of reinforcement, the gradual withdrawal of accompanying behaviors, the search for opportunities to practice new behaviors in the general environment, and the use of intermittent reinforcement should all be considered.

The practice of behavioral analysis does not substitute for the insights or methodologies of other disciplines; many different fields contribute to our understanding of human behavior. Communications, sociology, anthropology, and economics provide important points of view. In fact, behavioral analysis can help to enhance the contributions of other disciplines and sources of information by highlighting the contributions they have to offer.

Behavioral analysis is not covert manipulation. It is, instead, a powerful way to keep our focus on the primary goal—widespread *adoption* of critical new child survival *practices*. ■

*Dr. Touchette is Principal Psychologist and Associate Professor of Pediatrics at the University of California, Irvine where his research focuses on normal and abnormal attention patterns as they influence learning.*



### Swaziland continued from page 7)

surveys, each with 450 rural mothers chosen through national random sampling procedures, and a diarrheal disease registry kept by 20 clinics which listed more than 10,000 children during the course of the campaign.

**Exposure.** *Nine of every ten mothers reported having had contact with at least one of the selected campaign channels.* Three out of

four rural Swazi households have working radios, and of those more than 80 percent reported having listened to the programs that carried the messages. The flyers, the only widely distributed printed materials, were recognized by three out of five mothers and were owned by one in five mothers. As many as one-half of the mothers in areas where workshop training had taken place, reported some recent interaction with either clinic staff or local 'yellow flag' volunteers about oral rehydration therapy. About one-fourth of the mothers in other areas reported having had recent contact.

**Knowledge.** *After the first six months of the campaign, more than one in five rural women had learned and could repeat the correct formula—a substantial accomplishment considering that a previous formula, already known by some women, was being replaced with a new one. It appears, in fact, that some sources must still have been diffusing the old formula. When knowledge of either the old or the new formula was counted as correct, the proportion knowing all three ingredients of the formula went from 20 percent before to 50 percent after the campaign.*

Other campaign messages encouraged feeding during diarrheal episodes, and advocated special feeding afterwards. Although acceptance of feeding during diarrhea was little affected by the campaign (42 percent before and 53 percent afterwards), the perceived need for after-diarrhea feeding was substantially affected by the campaign (16 percent before versus 44 percent afterward). It has been suggested that there might have been conflicting messages from different sources about feeding during diarrhea—such as clinic staff and common-sense rejection of the notion that a child with diarrhea would be able to eat.

**Practice.** *By the third month of the campaign, 60 percent of the children had been treated with WSS or ORS—a level sustained over the remainder of the campaign.* The effects of the campaign on actual practice were evaluated by examining two subsamples of women: 1) those who reported they currently or within the past month had a child sick with diarrhea, and 2) those mothers who had brought their children into clinics for diarrheal treatment. Among the first group, 45 percent of the women said they had treated their child at home with WSS before the campaign; after the campaign 57 percent reported they had done so. This gain is more striking if one combines this report of use with the report of measured knowledge of the correct formula for mixing WSS. Counting either the old or new formula as correct, only 16 percent used WSS and knew the correct formula *before* the campaign; whereas 32 percent used WSS and knew the correct formula *after* the campaign. A second indicator, fundamentally consistent, gives a more optimistic picture: of the children coming to clinics at the start of the campaign, about 43 percent had been treated with oral rehydration therapy before coming to the clinic according to those bringing in children.

(continued on page 9)

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The consistency of these two indicators of current practice, although based on self-reports, suggests that change is occurring and that it is closely associated with campaign activities. The magnitude of the change, particularly if the clinic registry data is accepted, is consistent with a solid success for the campaign where substantial prior diffusion limited the possibility of large changes in practice.

**Future Questions**

These are the preliminary evaluation results. Analysis will continue for some months with subsequent reports on data from a study of the validity of self-report data; analyses of effects of exposure to campaign channels on individuals' learning and practice; and peoples' susceptibility to campaign messages. The final report will also discuss the extent of institutionalization of the HEALTHCOM methodology within the Swaziland Ministry of Health. ■

*Robert Hornik is Associate Professor at the Annenberg School of Communications, University of Pennsylvania. He was principal investigator for the evaluation of health communication projects in Peru and elsewhere under the AID-sponsored Mass Media and Health Practices Project. Pamela Sankar is a Ph.D. candidate at the Annenberg School of Communications, University of Pennsylvania.*

## A Health Audio/Video Series

The Food and Nutrition Program of the Faculty of Interdisciplinary Studies of the Pontificia Universidad Javeriana in Bogotá, Colombia, under the auspices of the United Nations University, has recently produced an audio and video series, "The Road to Health." The development of these programs included research and evaluation steps with the target audience, the results of which gave the necessary guidelines for health education needs, and appropriate communication channels.

The object of these programs is to educate low-income mothers about actions they can take to help the health and nutrition of children under five years of age.

The educational series, in Spanish, consists of 12 programs on (betamax) videotape of approximately 15 minutes each, and 17 programs on audiotape of approximately 10 minutes each.

The series is designed for use in educational discussions with groups of mothers, couples, or families, and to train extension workers in issues of health and nutrition.

For information on how to obtain this series contact: Patricia Avila de Hails, Facultad de Estudios Interdisciplinarios, Pontificia Universidad Javeriana, Carrera 10, No.65-48, Bogotá, Colombia.

# Formative Research: Pretesting, Revising, and More Pretesting

by Margot Zimmerman and Lena Steckel

Formative research is defined as evaluation activities that occur during a project to determine if the objectives are being met and, if not, to modify the project's direction to ensure that they are. Thorough and extensive pretesting is the formative research technique that the Program for the Introduction and Adaptation of Contraceptive Technology (PIACT) and its sister organization, the Program for Appropriate Technology in Health (PATH), rely on to develop well-understood and culturally appropriate print materials.

Before materials are finalized or printed, an interviewer should pretest them with representatives of the target population to determine if the intended message is being conveyed and if it is clear and acceptable to them. Pretesting should be done while the materials are still in an unfinished state so audience-generated alterations can easily be made. Revised materials should likewise be tested until they communicate the information as intended.

Since PIACT/PATH work with countries where large percentages of the population are nonliterate, its motivational and instructional materials rely on pictures (drawings, photographs, or a combination) to convey the message. Often, pictures are augmented by a line or two of simple text in the local language. This text also requires careful pretesting, for vocabulary selected by health workers or program managers may be too sophisticated for their clients.

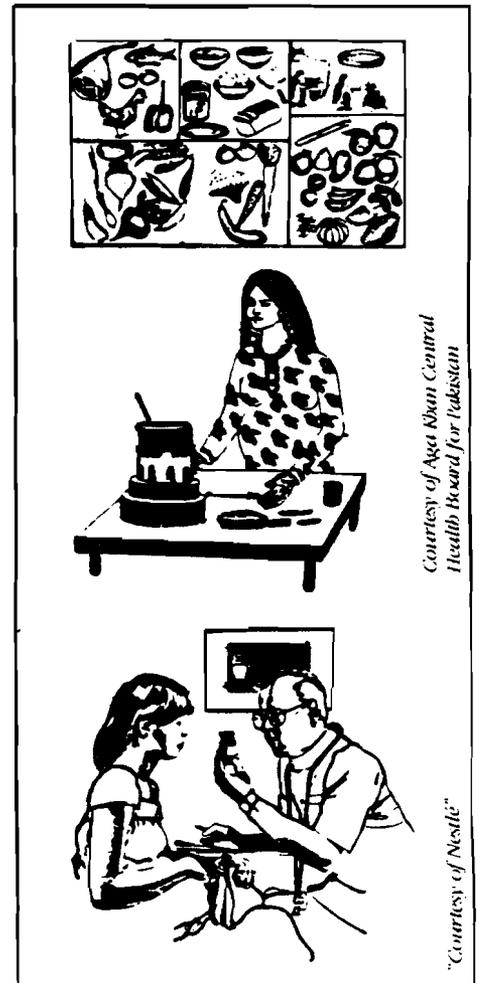
The following examples from the field demonstrate the importance of pretesting to assure that print materials are appropriate to the group for whom they are being developed. Details that may at first appear unimportant can render a material useless and even offensive to the target audience.

**Symbols.** While designing illustrations for the message "During pregnancy, take only medicine prescribed by a doctor," researchers pretested a photograph from existing material that showed several medicine bottles with a red "X" superimposed over them. Pretesting results indicated that the illustrations did not convey the message that patients should use only medications prescribed by a doctor. Many respondents did not even see the "X." Others did not know it symbolized "don't," "no," or "danger," and, in fact felt that the message encouraged the use of medications.

**Positive messages.** The audience's negative reaction to the photograph described above prompted project staff to test two alternative pictures. The first photograph showed a doctor gesturing to a woman and telling her in simple words not to take a pill that had not been prescribed to her; the second photograph (see illustration adapted from the pho-

tograph) showed a doctor giving a pregnant woman some pills. Results of pretests showed that comprehension was higher with both of these photographs which were accompanied by simple texts, but a majority of women preferred the second photograph because it represented a positive message.

**Use of common objects.** Project staff in Pakistan, producing materials on prenatal care for rural women, thought a drawing of a health worker using a pointer to indicate proper foods on a wall chart would be interpreted as a message explaining the importance of a healthy diet during pregnancy. When the drawing was pretested, it was misinterpreted as a health worker shooting a gun. Obviously, these women had never seen anyone using a pointer while giving a demonstration! The illustration they chose depicts the food groups above the head of the health worker (see illustration).



Courtesy of Aqsa Khan Central Health Board for Pakistan

Courtesy of Nestlé

(continued on page 12)

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# Funding Organizations Look at Communication

## The Fireworks Syndrome: WHO

by Jack Ling, Director  
Division of Public Information  
and Education for Health

*[The following piece has been adapted from a speech presented at the first ICORT Conference held in Washington, D.C., June 1983. We would like to thank Jack Ling for permitting us to reprint a portion of it in the DCR.]*

There is traditionally a world of difference between information and education. The task of the former has consisted of collecting information and presenting it in an interesting way, often through the media, to different audiences. The information officer's responsibility is traditionally perceived to end there. Education, on the other hand, to be successful requires an act of participation on the part of the learner and an all-important dialogue between the educator and the learner. But in a broader sense, and certainly in recent years, the two have converged.

Two WHO meetings, "New Approaches in Health Education for Primary Health Care," and "New Policies in Primary Health Care," strongly endorsed an integrated strategy using both interpersonal and mediated communication in the planning and delivery of primary health care. To use media without links to the existing health care services and face-to-face contact would create what might be called a "fireworks syndrome," by analogy with a display of attractive fireworks which fizzle out after a few seconds in a darkened sky. On the other hand, person-to-person work, while recognized as the most effective method of teaching, will benefit greatly from close partnership with the media which can stimulate and help to sustain interest in health problems on the part of individuals, families, and communities.

The role of the media in the education of the public, as seen by WHO, can be summarized as follows:

- to help strengthen political will by appealing to policymakers;
- to raise general health consciousness and clarify options concerning actions that have a strong bearing on health;
- to inform decision-makers and the public about the latest developments in health sciences and publicize relevant experiences;
- to help deliver technical messages;
- to encourage dialogue and facilitate feedback from communities.

The two WHO meetings urged that health education workers should be learner-facilitators as well as teachers and participants who

## The World Bank Addresses Health

by Margaret Valdivia, Project Officer  
Population, Health, and Nutrition

The World Bank began allocating and distributing funds directly for health-related projects in 1980. Promotion of appropriate health behaviors is now a component of most population, health, and nutrition projects financed partly by the Bank.

Development Support Communication activities supported by the Population, Health, and Nutrition Department encompass public education, personal counselling, patient education and the promotion of behavioral, consumer, and attitudinal change in specific target groups, as well as traditional health education and community mobilization. The criteria used for selecting the approach and methodology to be applied in a particular program are technical feasibility, cost effectiveness, and appropriateness to the context of the program. The scope of a project can be national, local, or highly specific.

Among the activities the World Bank has supported are: making films for sensitization and training of health personnel; making film and TV documentaries and documentary dramas for young audiences on teenage pregnancy issues; marketing one or two highly specific nutrition interventions nationally and in defined geographic areas; communicating by radio with volunteer workers; preparing teaching and learning materials for use by community leaders, mounting large-scale multimedia national campaigns maintained over long periods, and producing print materials for non-literates for mass distribution. ■

must work to stimulate community involvement. Health education is seen as the means to encourage and enable communities to identify their health problems and translate them into simple and realistic goals that they can monitor themselves.

It is important for us to learn from past experiences; the painful lessons of the 1950s and 1960s showed us that apparently successful technical programs were no more than "fireworks" in a dark sky. Only if attention were paid to building up the health system infrastructure so that the gain made by the specific program could be sustained, consolidated, and enlarged was there a chance of turning the fireworks into a permanent light. ■

## UNICEF: The Potential of Social Marketing

by James Grant, Executive Director

*[The following is taken from UNICEF's The State of the World's Children 1985.]*

Today, the resources of the mass media—and the techniques of social marketing—are beginning to be used to put the techniques of a child survival revolution at the disposal of millions of parents. In Brazil, the equivalent of US\$1 million a year in radio and television advertising time has been put behind a nationwide campaign to promote breastfeeding. In India, child survival messages are being proclaimed by advertisements on buses and billboards.

The potential of social marketing is just beginning to be explored. But already, there is a body of experience available to guide future efforts. First, it is clear that people's lives and behavior cannot be transformed simply by waving the magic wand of social marketing. Mass media messages about the need to boil water or to breastfeed or to feed a child more frequently cannot solve the problems of firewood shortage or maternity leave or give a mother more hours in the day.

Secondly, it has proved important to recognize the differences as well as the similarities between commercial and social marketing. Because social marketing campaigns usually seek a more important change in behavior and attitudes than a change in loyalties to a particular brand name, mass media messages in themselves are usually not enough. In the promotion of a more complex process such as oral rehydration therapy for example, mass media campaigns can be an important complement to but not an adequate substitute for practical face-to-face demonstrations by health workers or trained volunteers.

So far, the most common mistake of social marketing campaigns seems to be a concentration on the superficial aspects of commercial marketing techniques at the expense of its deeper disciplines. Research into how a target audience perceives its own problems and needs, into what sources of information have credibility, into what kinds of presentation are acceptable and what kinds of information are practicable, are all essential to campaigns which seek to bring about complex changes in human behavior. In developing such campaigns, considerable resources of time, money, and creativity need to be invested in message selection, media planning, analysis of message resistance, and monitoring of message response. A lack of professionalism in any one of these disciplines can easily diminish the effectiveness of a social marketing campaign. ■

# A Communicator's Checklist

## USAID: Reaching Out for Health

by Dr. Kenneth Bart  
Agency Director for Health

Outreach with effective health technologies—this may be the most significant challenge facing the international health community today. We *know* how to reduce infant mortality. We must now deliver on this promise. Public health education and communication are central elements in this process and the Agency for International Development (AID) strongly supports them.

Over the last decade, AID has invested significantly in research and development to find ways for communication to better strengthen proven health care delivery. Along with WHO and UNICEF, AID has supported state-of-the-art applications of social marketing methods for child survival. These efforts are beginning to show results. Several of these high impact AID-, WHO-, and UNICEF-sponsored programs are reported in this issue of *Development Communication Report*. These show the value of careful village-level research and the effectiveness of an integrated program utilizing multiple communication channels. They also provide a base of experience and ongoing institutional learning for continued work in this area.

I sincerely hope that the lessons from these programs will contribute to the achievement of the ambitious goals for child survival programs that we have set for the rest of this century. ■

**Child Survival**  
**ACTION PROGRAM**  
AGENCY FOR INTERNATIONAL DEVELOPMENT

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### Social Marketing: New Imperative for Public Health

by Richard K. Manoff (New York: Praeger Publishers, 1985) 279 pp.

The literature on social marketing has received an important addition with *Social Marketing: New Imperative for Public Health* by Richard Manoff. For the book not only provides time-tested, experience-based lessons on the fundamentals of designing and implementing a social marketing program; it also shares with the reader many valuable insights which, in total, create a treatise on the subject. Not without a moral foundation, Manoff's book convincingly lays out a caring, compelling appeal to treat social marketing as a true imperative to public health advancement.

Manoff's writings expose the reader not only to the "how" of social marketing but also to the "why." Lending further importance to the message, we develop a sense of what the prospects for future health care will be if we don't take full advantage of the potential of social marketing.

A well-crafted social marketing message designed for the mass media, this book reflects all the important steps required for penetrating, effective communication. It has a keen awareness of the target audience (in this case health promoters and communication planners worldwide); the problems requiring resolution are well defined; opposing viewpoints are recognized and addressed; benefits of following the suggested course of action are crystal clear; the viewpoint is made more convincing through examples; and the ever-important "call to action" is in sharp focus throughout the communication.

A major theme in Manoff's book deals with the enormous opportunity to help right some of today's health care imbalances, especially those that befall the poor. While the gap can be closed by better health service delivery, so too, he argues, can it be shortened by smartly applying traditional marketing techniques to social development issues.

Seeking to increase support for social marketing, Manoff directly, yet sensitively, confronts the questioning of mass media's role in social development. Rightly so, he challenges the thinking that failure to find conclusive, positive results in many social marketing programs calls into question the effectiveness of mass media for social causes. "How about the content of the messages in these 'failed' programs?" he asks. "Have we looked carefully at media delivery?" "Are we being truly persuasive in our appeals?" The role of mass media in influencing attitudes and decisions is undeniable. At its most basic level, there is no

reason to think that *well-conceived* social development messages delivered via radio or TV should, in most cases, be without strong influence. Manoff states "it is specious to argue that health and nutrition objectives are far more complex to achieve (than those of commercial products)... certainly in nutrition we are dealing with the promotion of foods that are no more complicated than those in the commercial world...."

A second Manoff theme ringing true is his call for a greater level of skill and aggressiveness in social marketing campaigns. He points out that "though marketing has demonstrated its usefulness for social goals, it is rarely carried out with the skill and thoroughness characteristic of the commercial world." He challenges the practitioners of social marketing to advance their level of expertise and insight and reap from social marketing all of its inherent potential. The world's social development ills are demanding that social marketers of today and tomorrow be more creative. Manoff calls for them to push their thinking and steer clear of doing things "the expected way." In a loud voice, he calls for new energy.

Complementing his call for action, Manoff devotes considerable attention to detailing the entire process of a well-conceived social marketing effort: problem identification; objective and strategy setting; developmental research; message design; testing; media planning; coordination of forces; and tracking of results. Each step is framed with a view on "how it's done" in commercial marketing, yet is focused on the particular circumstances of the social marketer in the developing world. At times though, the reader may find his critique of the developed world's marketing techniques to be paternalistic and somewhat unfair. Examples from around the world, including four extensive case histories, are illuminating and help the reader to recognize the advantage in following the identified path.

One particularly valuable section deals with designing the social marketing message. Here, Manoff addresses what this reviewer believes to be one of the major factors in social marketing program failure—media messages that are poorly planned and lacking sensitivity to the target's human condition. The reader is exposed to content, design, persuasion, and memorability factors that make the difference between a message that persuades and one that rings hollow. In light of the critical nature of this component of social marketing, it would have been better to have devoted even more space to the discussion of message ben-  
*(continued on page 19)*

**Extraneous detail.** A government agency in Botswana, which had developed a booklet on the oral contraceptive, recently made changes in a few illustrations because in-depth field tests conducted after they printed and distributed small numbers of the booklet revealed a detail unnoticed during earlier interviews. Respondents were distracted by an image of the back of a man sitting in the clinic window which appeared in each of the pictures showing the clinic. The same illustration of the clinic was used throughout the booklet. When the booklet was reprinted for widespread distribution, the man was removed from the window to eliminate the distraction. This illustrates the importance of thorough field testing of a small run of a booklet or flier prior to mass printing.

**Time.** Messages about time are often difficult to communicate, especially to non- and semiliterate audiences. Groups with whom PIACT/PATH has worked have developed a variety of symbols to show the passage of days, weeks, months, and years. An illustration showing a woman tearing off a calendar page was well understood by Ecuadorean audiences to mean that one month had passed. But in many areas of Sierra Leone or in the Sudan, respondents did not recognize the Western calendar. Consequently other symbols were tested in these countries. Moons in Sierra Leone and moons and stars in the Sudan were identified as the symbols most widely understood to represent months.

In a contraceptive instructional booklet developed in Bangladesh, it was important to convey the message you must "wait 5-10 minutes" after using the foaming tablet. Since most Bangladeshis could not tell time, the artist first depicted the passing of time by showing water boiling. When this was not understood, project staff observed villagers' routines to see if they could find an activity that took 5-10 minutes to complete. They finally tested a drawing of a man and woman sitting on their bed with the man smoking a cigarette. Almost every respondent understood that the man was smoking and waiting. They did not necessarily know *why* the man was waiting, but they knew that he should wait as long as it took to finish a cigarette.

**Text.** The same word can have several meanings, and pretesting will reveal when a selected word interferes with message comprehension. When preparing materials to promote breastfeeding in a large New York City hospital, text was tested informing women that, if they know they will be away from home during feeding time, they can "express" their own milk into a clean cup. Although the visual illustration of this process was already understood, when respondents in a pretest were asked to read the texts, some became confused, thinking that the written message had something to do with breastfeeding in the subway (express train) system. When substitute words were used, "you can take breast milk out by hand," the text reinforced the illustration and the message was clear to respondents.

Through pretesting, PIACT/PATH has

learned that there can be a large discrepancy between what materials developers intend to convey and what the audience understands. Pretesting is an essential formative technique that builds upon information gathered during the materials development process, ensuring the message designer that the materials will effectively address the needs of the target audience. ■

*Margot Zimmerman is Director of the PIACT/PATH Information, Education and Communications office in Washington, D.C. Lena Steckel is an Assistant Program Officer in PIACT/PATH's Washington, D.C. office.*

Please note in "A Communicator's Checklist", DCR #50, a book was reviewed under an incorrect title. *Bibliotech: The 1984/1985 Computer Cookbook* should have read *The 1984/1985 Computer Cookbook*. We regret this error.

## Environmental Communication Conference

The Department of Natural Resources and Environmental Quality Board of Puerto Rico are co-sponsoring and hosting the "First Conference on Mass Communications and Environmental Protection in the Caribbean Region."

The three-day meeting will be held in Old San Juan, Puerto Rico from February 3-5, 1986. The dual purposes are to assess the current uses of mass media in this area, and to explore future applications for incorporating mass media into overall planning strategies for environmental management and protection.

Those interested in attending the conference, displaying environmental media materials or audiovisuals, or receiving published proceedings should contact Victoria Dompka, Conference Coordinator, Department of Natural Resources, P.O. Box 5887, Puerta de Tierra, Puerto Rico 00906. Telephone (809) 722-5501.

### A Selected Bibliography of Health Communications Materials

- Communication and Child/Family Welfare: A Regional Seminar.* Paris: International Children's Centre, 1981.
- Diarrhoeal Diseases Control: Examples of Health Education Materials.* Geneva: World Health Organization, 1982.
- Fincham, A.G., Desai, P., Halliwell, J., McKenzie, H., and Morrison, H. *The Use of Radio for the In-service Continuing Education of Rural Primary Health Care Personnel in Jamaica.* Kingston, Jamaica: United Cooperative Printers Ltd., May 1984.
- Health Education Methods and Materials in Primary Health Care. Appropriate Technology for Health Newsletter.* Geneva: World Health Organization, December 1981.
- The Health Message Testing Service: A Standardized Approach for Assessing Audience Response to Health Messages.* Bethesda, Maryland: Office of Communications, National Cancer Institute, n.d.
- Mass Media and Health Practices: Project Implementation, Documents 1 - 17.* Washington, D.C.: Academy for Educational Development, 1982-1985.
- New Approaches to Health Education in Primary Health Care.* Technical Report Series 690. Geneva: World Health Organization, 1983.
- Perrett, Heli. *Planning of Communication Support (Information, Motivation, and Education) in Sanitation Projects and Programs.* Washington, D.C.: The World Bank, 1983.
- Pretesting in Health Communications: Methods, Examples, and Resources for Improving Health Messages and Materials.* Bethesda, Maryland: Office of Communications, National Cancer Institute, 1982.
- Primary Health Care Bibliography and Resource Directory. Information for Action Series.* Washington, D.C.: World Federation of Public Health Associations, 1984.
- Solomon, D., McAnany, E., Goldschmidt, D., Parker, E., and Foote, D. *The Role of Communication in Health.* Stanford, Calif.: Stanford University, January 1979.
- Sweeney, W.O. and Parlato, M.B. *Using Radio for Primary Health Care Issues, Series 1, Number 1.* Washington, D.C.: American Public Health Association/International Health Programs, September 1982.
- Vesin, P., Aghi, M., and Morel, G., editors. *Child Nutrition/Malnutrition: Information and Mass Media, A Workshop.* Paris: Centre International de l'Enfance, 1983.
- Vesin, P., Morel, G. and Schmidt, B., editors. *Educação e Saúde da Criança e Meios de Comunicação de Massa.* Paris: Centre International de l'Enfance, 1983.

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# Saving Children's Lives: A Communication Campaign in Egypt

By Dr. Norbert Hirschhorn

Diarrheal disease is the remaining major cause of death in Egyptian infants and toddlers under the age of three, accounting for over 60 percent of deaths in those age groups. As late as 1980 it was estimated that close to 150,000 deaths were associated with diarrhea. Studies showed that the great majority of these deaths were due to simple dehydration, "simple"—in the sense that death could have been prevented by proper oral rehydration therapy. Intravenous fluids were available but not to all children, especially in rural areas. Also, mothers were not aware of the dangers of dehydration and brought children into clinics too late. A pilot study proved conclusively that oral rehydration therapy (ORT), promoted by rural health clinics and at home, could reduce diarrhea-related deaths by 50 percent.

It was on the basis of this pilot study that the National Control of Diarrheal Diseases Project (NCDDP) was developed through a program agreement between the Government of the Arab Republic of Egypt and the US Agency for International Development. Signed in late 1982, the five-year project aimed to reduce child mortality from diarrhea by at least 25 percent. Work began in 1983 with the arrival of the technical assistance team from the John Snow Public Health Group (JSI).

## Project Description

There are two features of this project that are central to its effective management: 1) the NCDDP enjoys a certain degree of autonomy to the extent that it can reach beyond the Ministry of Health to bring in specialists through grants and contracts, and it has the power to manage its own budget and personnel; 2) the NCDDP is not a group of separate program elements, but an integration of elements in time and concept: training of health workers; production, distribution and marketing of oral rehydration salts (ORS); monitoring and evaluation of the project; and education and promotion via television, radio, and other public media. These aspects are all concurrently active and all are maintained and coordinated through the Secretariat, the technical arm of NCDDP.

The goal of the communications element, the focus of this article, is to teach, persuade, and change the behaviors of (a) all Egyptian mothers of children under three, and (b) other specific target groups, especially health personnel, pharmacists, mass media reporters, and decision-makers involved with the management of diarrhea and dehydration programs.

## Planning for Communication

Data acquired through target audience research provides program planners with the

most useful and valid information upon which to build a communication campaign. This holds true whether the activity is to select an appropriate logo to call attention to the campaign, or to determine the most effective channels through which to communicate social messages. The following elements of the NCDDP project were those that required considerable audience research and testing before being integrated into the ORT campaign throughout Egypt.

**Logo.** Four designs were selected from among ten submitted by independent artists and advertising agencies. Focus groups and brief interviews in public places on these four logos were carried out to determine audience response. The most popular design was again taken out and tested with other focus groups for more specific comments. Changes resulting from this final feedback were the color of the mother's dress from black to white—for cultural reasons; a wedding band drawn onto the mother's finger; a larger spoon; and a smile added to the mother's face (see logo illustration). While responses were being collected on mothers' reactions to the proposed logo, numerous subjective feelings were also being shared with the staff about illness, health care, and the mothers' devotion to children—all useful information for upcoming message design purposes.



**Materials Design.** Questioning the mothers who participated in focus groups helped project staff determine what amount of fluid a mother would find believable to give to a child with diarrhea. In addition, surveys showed that a 200cc packet of salts would be the most practical size for home use. A plastic cup and spoon were also developed for distribution with the packet.

**Naming the Solution.** Field research showed that mothers favored simple names that either convey a warm feeling or that describe the *purpose* of the solution. An Arabic word meaning "for cure" (a common blessing upon taking a medicine) was selected, responding to mothers' voiced preference. However, doctors and pharmacists took ex-

ception to this name noting it was not suitable for prescribing purposes. The name finally chosen, *The Solution for the Treatment of Dehydration* served the dual functions of ease of identification for mothers as well as providing a precise prescription name for doctors and pharmacists. People now know it more simply as *The Solution*. Exemplified here is a case where selected audience research told project planners the wrong thing. Although mothers were the primary audience, doctors and pharmacists served as dispensers of the solution and should also have been consulted from the beginning in order to ensure broad acceptance of the product.

**Identifying the Product with the Disease.** Since oral rehydration does not stop diarrhea, another disease for which the therapy is effective must be identified. That "other" disease is dehydration. One of the problems, particularly in the rural areas, was finding a familiar term to help mothers associate the symptoms they already recognize in their sick children with dehydration. An Egyptian Arabic word *gaffaff*—meaning agricultural-related dryness or drought—was found to best express the concept that project staff wanted to convey. Although use of *gaffaff* in this context is not always understood by all mothers, it does provide health care workers with another means of teaching some mothers to take action more quickly when their children are sick with diarrhea and are dehydrated or in danger of becoming so.

## Message Design

NCDDP research into the entertainment and mass communication habits of the Egyptian public, both rural and urban, showed that over 90 percent of Egyptians have access to radio, and over two-thirds to television (over 90 percent in urban areas). This argued for assigning radio and particularly TV central roles in the dissemination of educational messages about diarrheal disease, and TV advertisements were developed.

**TV Production Sequence.** Diarrheal disease experts were first consulted to learn the facts about the disease. Egyptian pediatricians and medical professors were then brought in to review the medical facts within an Egyptian context and to modify recommendations for the target audience. A "story board" (illustrations of visuals comprising the proposed TV ad) was then designed. Egyptian pediatricians were asked to review these for accuracy. At this stage of development, anthropologists took the "story board" and the accompanying script to villages and used focus groups and one-on-one techniques to solicit comments. After selected changes were made the TV ad was produced and reviewed by diarrheal disease experts and Egyptian pediatricians. This

(continued on page 14)

(Egypt continued from page 13)

final film was *not* pretested; instead, an intensive post-campaign evaluation of the first broadcast campaign, timed for release in January-February 1984 as a pilot during the non-diarrhea season, was used to gather target audience reactions. The NCDDP ads have subsequently been found to be the most remembered of *any* public or commercial ad according to the posttests following the second and third campaigns in the summer of 1984 and 1985.

**TV Testimonial Personality.** Television history was made with the production of these ads. It was the first time a famous person was used to deliver a social-oriented message and only the second time the testimonial format was used on TV. The first pilot commercials featured the actor-comedian-social commentator, Fouad El Mohandes, known widely to children as "Uncle Fouad." Although "Uncle Fouad" was well received by a majority of mothers with young children and the commercials effectively transmitted the intended messages, the response was *powerfully negative* in five to eight percent of mothers surveyed. More importantly, doctors overwhelmingly rejected the image, asking "How can a comedian teach about medicine?" Even when "Uncle Fouad" was paired with an eminent physician, doctors persisted in rejecting this image.

This strong negative response called for a very different image to regain the confidence of the medical profession. To accomplish this, a well-known "motherly-appearing" actress was selected—Karima Mokhtar, who plays in soap operas and movies in Egypt. Her role as an advisor/counselor in the ads proved highly acceptable among medical professionals and mothers alike.

**Physicians, Pharmacists, and Nurses.** Messages were designed as much for medical professionals as for mothers. Radio and television's "leveling" effect means *everyone* receives the same message, giving doctors, nurses, and pharmacists the opportunity to know what the general population knows. It provides them with a base upon which to continue educating their patients/customers. Health workers were also provided with a flood of well-produced professional materials (posters, a newsletter, scientific brochures) that were equally appreciated as there is generally a shortage of good resource materials for medical professionals in Egypt.

## Results

What was the impact of this intense, nationwide campaign to reduce infant mortality related to diarrhea, and could such an impact be attributed to effective communication planning? Between early 1983 and late 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 have ORS available and it is now the leading sale item (in volume) of all diarrhea-related drugs according to a survey of 300 pharmacists nationwide. Careful documentation shows that mass media alone increased the use of ORS from one

percent to nearly 70 percent of episodes. Statistically significant, mortality reductions in children under two have been documented nationwide, approximating a 50-percent drop in diarrhea-associated deaths, concomitant with project activities. Monitoring of all process and outcome measures continues. The success of the NCDDP project in Egypt indicates that mass media can help change behavior, but that all other elements of a mass campaign must be equally well-planned and coordinated to achieve this success. ■

*Dr. Hirschhorn is a lecturer at Harvard University's Department of Preventive and Social Medicine. He has had worldwide experience in implementing diarrheal control programs and in training health workers in maternal child health and development.*

(NCBC continued from page 5)

Surveying was based on issues identified earlier by the Ministry of Health as most severe for the population overall including: protein-energy malnutrition in three age groups—infants 0-4 months, infants 5-8 months, and children 9-24 months old; infant diarrhea and dehydration; vitamin A deficiency; undernutrition of pregnant women; and undernutrition of women during lactation. The NCBC explored these problems in a subsample of the participating villages. A survey sheet of media habits was completed during the initial interview with mothers and at all focus group interviews.

## The Communication Strategy

The qualitative investigation identified the need for change or reinforcement in particular nutrition-related behaviors. The target audience of mothers was segmented according to their needs during designated maternal stages and by the age-related dietary needs of their children under three years of age. This meant only immediately useful information would be directed to mothers in these categories.

The research showed that the cost to mothers of following the advice was at the most a few rupiahs (cents) more than they normally spent per day and was affordable for over 90 percent of the sample. Due to severe constraints on the mothers' time, most of the recommended behaviors demanded a small additional investment of their time; those that required extra time offered a substantial and perceptible reward.

Radio was available in many homes in the project areas, so broadcast messages were integrated into the project as an additional means of reaching mothers. The radio spots, besides bringing nutritional messages into the home, also identified *kaders* as a crucial source of information for mothers and children, thus increasing their prestige in the eyes of mothers.

"Action Posters" were designed to meet several strategic needs; first, to reinforce the *kaders'* advice in areas not reached by radio; second, to ensure accurate delivery of the

messages at weighing sessions and home visits. A poster was designed for each segment of the target audience. The name of the target group was printed at the top of each poster and large, step-by-step illustrations of the recommended practices were featured below. A column of boxes under each illustration allowed mothers to record their compliance with the recommendations over a month's time.

The project also addressed the *kaders'* expressed lack of confidence. They were trained how to use the educational materials that would be taken to mothers' homes. At weighing sessions *kaders* selected a poster according to the age of the child, then counseled the mother on what she should do, using the poster as a visual aid for her and as a reminder of the advice that should be given during this session. Thus, the posters served to reinforce the advice to mothers once they returned home, and to reinforce the *kaders'* training. Delivering the posters to the homes of mothers also gave *kaders* a purpose for making the visit since it provided them with something to offer in exchange for the mothers' time.

## Project Evaluation

Addressing the same nutrition problems as the national program and operating with virtually the same activities and tools, the NCBC project achieved significantly different results. The 1981 evaluation showed that the social marketing approach had improved the nutritional status significantly in the target populations. Significant improvements in food intake and the nutritional status of the target populations, the ultimate tests of the strategy's effectiveness, were also recorded and could be attributed to behavioral changes stimulated by the project. These changes were reflected in: higher protein and calorie levels for project children and breastfeeding mothers; higher consumption of the recommended foods by project children; an improved nutritional status for 40 percent of children in the project; at 23 months, an average weight of 1.5 kg. higher for project than nonproject children; and a significantly better growth rate in each experimental area for project children after five months of age.

In addition, project *kaders* offered more accurate, specific, and complete dietary advice to the target population than a sample of nonproject *kaders*. The evaluation also pointed to higher levels of performance by the project *kaders* than by their counterparts in nonproject communities in terms of community outreach and broader and more consistent coverage.

## Cost Analysis

The NCBC case illustrates how the social marketing approach to educational programs fits the needs, resources, and desires of program participants. Social marketing made the fit possible by producing messages that addressed the most pressing nutrition and health problems with suggestions for practices that mothers could carry out and sustain  
(continued on page 19)

# A Nutrition Prescription for the Dominican Republic

The Applied Nutrition Education Project (ANEP) of Caritas-Dominican Republic and Catholic Relief Services works with families in 90 low-income Dominican communities to improve the nutritional status of children. This is done by encouraging families to better feed and care for children, and through community action projects to increase food production and sanitation.

From the outset, ANEP has placed prime importance on education and community promotion, seeking to develop a comprehensive communications strategy that reflects community needs and abilities. In designing the ANEP strategy, the lessons of Indonesia's Nutrition Communication and Behavior Change Component were applied, and the benefits of growth monitoring as a pivotal nutrition communication activity were exploited. Other ways in which ANEP reflects the Indonesian experience: its strategy is based on community participation through qualitative research, albeit through focus group rather than individual interviews; communication and education are the primary interventions; individual counseling in conjunction with growth monitoring plays a key role in the communications

strategy; and education materials can be adapted by health promoters to meet individual needs. The project has produced promotional materials, materials for group education, materials to stimulate community action activities, and materials for individual counseling at growth monitoring sessions. The primary audience is mothers with children under five years of age.

ANEP has gone further with individual counseling than either the Nutrition Communication and Behavior Change Component (NCBC) of Indonesia or the Indonesian Family Nutrition Improvement Program (UPGK) by providing a tailored method and the tool for adapting the method to the mothers' individual resources. For personal counseling, a set of 12 laminated pictures, *portalaminas*, was produced to guide health promoters in counseling mothers at weighing sessions. Each 11 x 14 inch *lamina* has graphics on one side and a message for one of four segments of the target audience on the other. The project designed two *laminas* for each age group: one for children who have gained weight, and the other for children who haven't. Mothers of children who have gained weight are congratulated and encouraged to continue feeding as

before. Promoters spend only a few minutes with these mothers. More time is spent with mothers of children who have not gained weight. In addition to offering these mothers specific suggestions for actions they should take, promoters ask the mothers how many of the recommendations they can actually carry out. As a reminder to these mothers of what they should try at home, ANEP developed take-home worksheets for mothers of non-gainers. Each worksheet has illustrated recommendations for a target group at the top of the page and boxes at the bottom. For example, a promoter asks the mother of a 9- to 23-month-old who has not gained weight whether she can realistically feed her child the recommended four meals a day. If the mother says she can only manage three, the promoter circles three of the four illustrated feedings and asks the mother to punch a hole in, or to mark the boxes as she follows the advice. ■

*Communications assistance has been provided by Marcia Griffiths of Manoff International, and two consultants to the International Nutrition Communication Service.*

## Distance Teaching Course Offered

A four-month course on distance teaching and its relevance for Third World countries will be held from April to July 1986 by the International Extension College and the Department of Education in Developing Countries of the University of London Institute of Education, at the Institute in London.

Course objectives are to analyze an educational problem in a participant's country and determine whether distance-teaching methods are appropriate to it; to make reasoned and informed choices between different methods of distance teaching; and to work out administrative arrangements for a distance-teaching system.

All participants should be graduates or trained teachers or have adequate relevant experience, have not less than six months' experience of working full-time in distance teaching or extension, and have a thorough command of English.

Application deadline is February 17, 1986. For further information and application forms contact: Departmental Secretary, Department of Education in Developing Countries, University of London Institute of Education, 20 Bedford Way, London WC1H 0AL, U.K. Telephone 01-636-1500.

*Worksheet for mothers of children 9-23 months of age who have not gained weight. Messages: Give the child the same food as the family eats. Give the child one more meal and a snack between meals for a total of four meals a day and two snacks. Continue breastfeeding.*

PROGRAMA DE EDUCACION NUTRICIONAL APLICADA  
CARITAS DOMINICANA 1984

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and a five-year stock of spare parts. A key element has been involvement from the beginning of GTC, whose technicians have been used to install and maintain the equipment under a contract with the Ministry of Health (MOH). Since the GTC and MOH have collaborated from the start, each has an equal stake in seeing the MEDEX network develop successfully. Additionally, continuity was ensured by involving the same technical assistance team throughout the planning and installation stages.

All medex are trained in the use, care, and maintenance of their radios in an intensive one-day training session. Each medex receives an illustrated training manual and a set of maintenance tools. They are taught how to communicate effectively over the radio and how to fill out the logs of all calls sent and received. Georgetown headquarters analyzes the logs to determine the use and reliability of the network.

A key person in the network is the full-time communications officer at MEDEX headquarters in Georgetown, who is responsible not only for communicating with the medex and controlling traffic on the network, but also for following up on their requests. This officer must locate a physician when an emergency call is received, determine the status of patients transferred to Georgetown or of delayed drug shipments, and provide other information upon request. The competence and dedication of this officer is vital to the successful operation of the network.

**Radio Use**

Medex keep their radio in their office and generally have it on "receive" mode for incoming calls from 8:30 a.m. to 4:30 p.m., Monday through Saturday. An analysis of logs during the first quarter of 1985 showed that 62 percent of all calls were for administrative purposes, such as to coordinate transportation needs, order drugs and supplies, supervise field personnel, and schedule health care personnel meetings. About 23 percent of all calls were related to medical uses such as consultations between field medex and doctors, continuing education, patient referrals and follow-up, emergency evacuations, or malaria control. Messages transmitted for community residents or other national agencies comprised the remaining 15 percent.

The pattern of radio use varies depending upon regional needs. Medex in remote locations rely more heavily on their radios than do their counterparts stationed where transportation and communication links are better. Medex in the hinterland, on the average, used their radios 1.5 times as much for administrative purposes as did medex in coastal or *river-ain* areas, and twice as much for medical purposes.

Between 1980 and 1985, administrative uses of the network increased from 44 to 62 percent of all traffic while medical calls declined in volume from 31 to 23 percent. It should be noted that the absolute number of calls in all

categories has, however, increased with the expansion of the network.

In addition to the already discussed radio traffic, MEDEX headquarters uses two-way radio (TWR) to provide consultative and educational support to their field workers. A bi-weekly program in continuing medical education provides inservice training at a distance. Every other Saturday Georgetown conducts a medical clinic by TWR. Brief lectures are delivered on field-generated topics such as malaria control and infant diarrhea. When a clinic has finished, medex are encouraged to ask questions and to discuss relevant community cases. Two weekly conference calls update medex on administrative actions, and a Georgetown operator calls each station once a week to conduct an equipment check.

**Impact of TWR**

Two-way radio has greatly improved rural primary health care delivery. It has substantially eased the coordination and management of remote medex locations. Administrative matters are also handled much more efficiently than before, particularly when requisitioning supplies and drugs.

Previously, drugs were ordered by mail or by messages passed through other government agencies. Medex often had to wait weeks for a reply, only to travel to Georgetown for follow-up. Such activity resulted in considerable expense to the MOH and in a temporary loss of medical services to rural communities. With TWR, medex can now follow up on administrative matters without ever having to leave a site.

TWR has also greatly improved the coordination of emergency evacuations. Transportation can be immediately arranged, referral centers alerted to the patient's impending arrival, facilities prepared, and a physician placed on call. In the past medex were forced to leave their patient and travel to the closest available radio, resulting in delays of hours or days—sometimes at the cost of a patient's life.

It should be noted, however, that while TWR can communicate the immediacy of a situation, poor roads and unreliable transport still limit the extent to which a medex can respond to community medical needs. Emergency evacuations which may now be coordinated in a matter of hours along the coast, may still be impossible during the rainy season in the hinterland.

Morale among medex has improved, particularly for those in more isolated stations. Medex report that their confidence grows as regular consultations and continuing education support enables them to provide better health care for their area. With TWR, medex have immediate access to a qualified doctor for consultation on diagnosis and treatment. Previously this was done by letter or personal visit. Medex also express enthusiasm about the value of the continuing education programs which keep them better informed than was possible before the installation of the system. In addition, medex feel that their status in the community has improved because of TWR. In many communities the network provides the only channel for communicating.

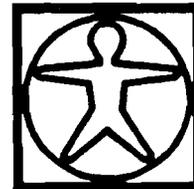
**Conclusion**

While need for and use of TWR seems to be greatest in remote locations, its utility remains constant throughout the network. Benefits of the system include:

- increased access to knowledgeable persons for administrative and managerial matters;
- improved supervision of field paraprofessionals;
- increased opportunities for medical consultation, patient referrals, and clinical follow-up;
- improved reporting of and response to emergency situations;
- increased communication between medex, community members, and other government agencies.

The benefits of the medex two-way radio system exemplify the important role telecommunications can play in the development process. Use of telecommunications for administration, supervision, coordination, consultation, and education can lead to improvements not only in the quality of rural health care, but also in supporting education and agricultural extension services. As the Guyana experience demonstrates, rural communications can contribute to improving the quality of rural life in the developing world. ■

*Michelle Fryer is a specialist in uses of radio for education. Dr. Burns is Associate Professor, Department of Electrical Engineering, Iowa State University; Dr. Hudson is Associate Professor, College of Communication, University of Texas at Austin.*



(ERIC continued from page 18)

potential uses for the volume. The format of the book is described, and selected lesson plans from the *Sourcebook* are presented: (a) Eating Good Food to be Healthy; (b) Night Blindness and Sick Eyes; (c) Eating Nutritious Foods for Healthy Eyes; and (d) Planning a School Garden. Appended are charts outlining the contents of the sourcebook, including topics and lesson presentations in each section, and related lessons in other subject areas are indicated for each key topic. Available from EDRS in microfiche for 97 cents or in paper copy for \$7.40. ■

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## Kenya's Radio Language Arts Project: Evaluation Results

by Rebecca L. Oxford

The Kenyan Radio Language Arts Project (RLAP) assessment has just been completed, documenting the effectiveness of interactive radio-based educational instruction. Analyses in the areas of listening, reading, speaking, and writing demonstrate the sometimes surprising results that children in radio classrooms consistently scored better than children in nonradio classrooms in every test.

The spring issue (#49) of *Development Communication Report* contained several articles describing various features of the RLAP that ran from 1979 to 1985. The project was sponsored by the Office of Education, Bureau for Science and Technology of the U.S. Agency for International Development and was conducted by the Academy for Educational Development in cooperation with the Kenya Institute of Education of the Ministry of Education, Science, and Technology. An evaluation of the project was carried out with the assistance of the Center for Applied Linguistics (CAL). Evaluation results came from a variety of sources, including language tests, observations, interviews, demographic and administrative records, and an attitude survey.

### The Setting

A large proportion of the project's students were considerably transient. Only 22 percent of the total student population of 3,908 were "normal progression" students—that is, they advanced regularly through their education during the life of the project. Students who moved from the area, failed a standard (grade), dropped out, or were otherwise untrackable, comprised the remaining 78 percent of the total. Seven districts were included in the project—each district being represented by three schools. All the schools were located in rural areas, but their physical accessibility varied widely. Project staff rated radio reception as excellent in 79 percent of the schools, problematic in 18 percent, and poor in 3 percent.

The average age of teachers across all districts was 31.7 years, and the average age of headmasters was 38.3 years. While all headmasters in the summative evaluation were male, project teachers were mostly female. Teachers averaged 9.4 years of experience, and headmasters had served an average of 10.1 years in that position. Teachers had received an average of 9.8 years of education and headmasters 10.7 years.

### Test Results

Tests were developed for listening and reading in Standards 1, 2, and 3, and in speaking and writing in Standards 2 and 3. The achievement tests were based on the official Kenya curriculum for those standards, so as to

measure achievement against the curriculum. Nearly all the differences were highly significant statistically, with a probability of less than 1 in 10,000 that the findings could have occurred "by chance."

Table 1 shows the performance of all project students. The most striking difference is in average listening scores: Standard 1 radio students scored nearly eight points higher than did their counterparts in the control group; Standard 2 and 3 radio students outperformed the control students by 4 points. These findings indicate that the interactive radio method, which emphasizes listening, resulted in greater learning gains by radio students. Similar findings, with somewhat higher averages for both groups, were found in analyses of students who progressed regularly through grades during the project.

Somewhat more surprising is the fact that the radio group also consistently outperformed the control group in reading, writing, and speaking. In these skill areas, the radio versus control group differences, while not always large, were statistically significant. In addition, although radio students did better than control students in writing, neither group performed particularly well in that subject.

This analysis also indicated that there was a positive relationship between the average number of years of teachers' teaching experience and higher achievement scores among the students.

### Positive Attitudes Prevail

Unstructured interviews and observations were conducted by the RLAP field staff. Overwhelmingly positive attitudes about the project prevailed among project teachers and headmasters. One school offered to buy its own batteries if the project staff would provide the taped lessons so the children could continue using this method after the project ended. In another school, the project staff

found a teacher following the radio teachers' notes and using many of the radio lessons in her conventional classroom not equipped with a radio.

A formal survey conducted in 1984 also indicated highly positive attitudes toward interactive radio instruction in general. Eight of every ten teachers and headmasters felt that radio instruction was very helpful, while nearly all respondents felt it was somewhat helpful. Students' reactions to radio instruction were rated as positive by 91 percent of the teachers and 100 percent of the headmasters. Radio lessons were viewed as either good or excellent by 85 percent of the teachers and 97 percent of the headmasters. Educators generally felt that radio students performed better than other students in all four language areas, with greatest strength in listening and speaking. Both teachers (by 91 percent) and headmasters (by 97 percent) preferred teaching English with the radio. Eight out of ten teachers and nine out of ten headmasters said that radio instruction improved teaching skills. Nine out of ten teachers and headmasters wanted to continue using the radio lessons after the end of the project.

### Significant Observations

Although the primary purpose of performing this analysis was to produce summative evaluation results, project staff members made some informal observations as they gathered formative data:

- The radio method forced systematic implementation of the Kenya curriculum.
- Good teachers mastered the technical details of the radio method and were able to "individualize" radio instruction to help children of different ability levels.
- The highly interactive nature of the instruction increased the frequency of student re-

(continued on page 18)

Table 1  
Summary of RLAP Instruction Raw Score Results:  
All Students

Standard	Reading		Listening		Writing		Speaking*	
	Radio	Control	Radio	Control	Radio	Control	Radio	Control
1	13.1	10.7	23.4	15.5	—	—	—	—
2	14.6	13.1	15.3	11.2	2.8	2.3	WT 6.1 M 34.3 G 15.9	67.7 29.0 14.0
3	22.9	19.1	25.7	21.6	2.7	2.1	WT 120.2 M 46.4 G 20.7	114.1 39.1 16.5

\*Speaking test used a 10% sample of all students. Subtests included Word Total (WT), Meaning (M), and Grammar (G).

sponses and the amount of time spent working on language tasks.

- Fewer discipline problems occurred in radio classrooms than in regular classrooms.
- Three times as much English instruction was presented in any half-hour block by radio than by conventional teaching means.
- The radio method, unlike the conventional method, used almost every item in the Kenya curriculum.
- Radio students appeared to have more self-confidence and enthusiasm than nonradio students.

### Conclusion

With the conclusion of this assessment phase of the Kenyan Radio Language Arts Project, solid data now exist to document what participating teachers, administrators, project planners, and even students have said about this experimental project—it works. In fact, it works so well in all four language skill areas, particularly in listening comprehension, that instructors wanted to see the radio lessons continue after the experiment ended. ■

*Dr. Oxford is an educational psychologist at the Center for Applied Linguistics and has a consulting firm, O-C Associates, Inc.*



## Interactive Radio Education Film Available

A twenty-minute film and videocassette, *Radio, the Interactive Teacher*, is now available for rental from the Clearinghouse. It documents the application of an innovative, radio-based instructional methodology to teaching English to rural Kenyan school children. (See DCR #49 for a full account of the methodology and several adaptations in other developing countries.)

The color film is available in 16 mm film, 1/2" Beta, NTSC; 1/2" VHS, NTSC; or 3/4" U-Matic, NTSC in French, English, and Spanish. Rental fees are: US\$10 for domestic requests, US\$20 for foreign requests. Please send your order with a check or money order in U.S. dollars made payable to:

Clearinghouse on Development Communication  
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- *Health Education Training Model. Training for Development. Peace Corps Manual No. T-11. 1983. 77pp (ED 254 659)*

Intended for preservice and inservice training of Peace Corps Community Health Volunteers, this selection of health education training materials presents a model designed to help community health workers become better facilitators and educators as they help motivate people toward a healthier and more self-reliant life. The introduction provides suggestions for preparing for and carrying out the training program. The twelve sessions focus on: defining expectations and clarifying objectives of health education training; beginning the program: looking at community health and education; exchanging ideas about health education; working with a group; how people learn; the role of the Peace Corps volunteer as a community health worker; identifying community needs and resources; teaching about important health issues; developing and using appropriate teaching aids (one session on story telling and one on creating low-cost materials and equipment); and the Health Fair. Information provided for each session includes objectives, an overview, lists of resources and materials, preparation, activities, and handouts. Appendices include information on working with a group, evaluation ideas, a calendar for a ten-day training program, and a listing of selected resources and references. Available from EDRS in microfiche for 97 cents or in paper copy for \$7.40.

- Moore, Thomas J. and others, eds. *Communicating with Mexican Americans: Por Su Buena Salud = Comunicando con Mexicanos: For Their Good Health. Proceedings of the Conference (Houston, Texas, September 13-14, 1979). 152 pp. (ED 249 036)*

This conference focused on the role of the Mexican American's language, tradition, life style, health practices, and media utilization in the design of effective education and information programs. Representing various local, state, and national health, education, and media organizations, the 108 participants attended sessions on socio-cultural factors, health values, and perceptions that affect health communication, as well as the use and evaluation of media in disseminating health information. This study involved the design of a model health communications campaign to educate the Mexican American community about services provided by a health maintenance organization for cardiovascular disease. A media critique session provided participants

with guidelines for content and production to use in designing health communication materials. Topics of the research presentations included the assessment of Hispanic knowledge, attitudes, and practices related to cancer for the purpose of education programs; alternative methods for presenting bilingual health education messages; and a videotape package on cancer health education designed to reach Hispanics. Available from EDRS in microfiche for 97 cents or in paper copy for \$12.65.

- Colle, Royal D. *Communication Planning for Effective Nutrition Programs. 1983. 36 pp. (ED 149 937)*

Primary health care and nutrition have been linked with communication in a variety of well-publicized projects. This partnership between communication and nutrition was made necessary by the conflict between an expanded demand for services and limited resources for meeting the demand. Senior officials have a substantial role to play in seeing that their programs gain the full benefit of what an effective communication program can offer by accepting the responsibilities of: (a) examining the implications for communication of any program while it is in the planning stages; (b) insisting that communication or education people work within the framework of a communication strategy; and (c) providing communication resources. In planning, steps should include policy formation and development of a comprehensive strategy to meet program goals. With an understanding of the policy and comprehensive strategies that govern a project's overall efforts, communications specialists should start a process that includes analysis, strategy, implementation, evaluation, and next-step planning. Program officials should insist that top communication managers deal explicitly with the elements of principal objectives, best tentative solutions, audiences, media channels, theme/messages, and schedules. A summary chart of communication and education techniques includes methods, their advantages and disadvantages, and comments. Available from EDRS in microfiche for 97 cents or in paper copy for \$3.90.

- Van der Vynckt, Susan, and Ellen Barclay. *The Unesco Resource Pack for Nutrition Teaching-Learning: An Introduction to Volume 1. Nutrition Education Series 8. 1984. 89 pp. (ED 254 495)*

This guide provides an introduction to the *Unesco Sourcebook for Classroom Nutrition-Learning*, which is designed for both actual classroom use and teacher-training support material, with lesson plans, teaching methods, and learning activities. Nutrition information is presented in such a way that important concepts are not limited to nutrition and health classes, but can also be integrated into different subject areas within the general school curricula, including science, language arts, mathematics, social studies, and agriculture. As well as school meals. Lessons, which are provided in each subject area to cover related nutrition and health topics, include instructions for both student- and teacher-made instructional materials. This introduction to the sourcebook first presents a brief list of some

(continued on page 16)

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as often as three or four times a day. It helped the project find the most effective channels to deliver this information to mothers at the time they would be most responsive to it, and make these mothers aware of where they could find help. Finally, it helped the project develop an integrated media strategy and materials that would expand the effectiveness of each resource. ■

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(Manoff continued from page 11)

efits. All too often, the inexperienced social marketer will create a message that is rich in detail but lacking in *human benefit* for the target audience. As social marketers, we must never lose sight of the reality that our target audience will only follow a suggested course of action if we convince them that it will make their lives or that of their families *easier, better, or richer*. In a family planning message, for example, "having fewer babies" is not an easily identified benefit; but "having a better life for the current children" is. Or recommending that you boil river water before using it because "doctors think you should," does not personally appeal to affected persons, whereas saying "the prevention of painful, life-threatening illnesses" does present a real, human benefit to those who follow the practice. To lose sight of the actual benefit is to fail in communicating our message; and to fail is to waste an opportunity for social development.

Manoff nicely augments the instructional section of his book with invaluable lessons learned from his extensive work in the field. He includes, for example, well-honed insight on selecting a target audience and avoiding the common error of aiming at too broad an audience. Another lesson deals with the synergistic value of linking a social development program to other societal issues (e.g., family planning linked to child nutrition).

*Social Marketing: A New Imperative for Public Health* should come to be a valued addition to the library of social marketing students and practitioners worldwide. Appreciation for the work will result from its road map of the social marketing process, showing us not only the direction to travel, but also the hazards to avoid. I suspect it will also be valued for its sense of dedication and honesty to the practice of social marketing. But perhaps most importantly, Manoff's new book should be held in esteem for its voice of appeal, its rallying cry to health practitioners around the world. The current era of health education demands new and "better methodology to enlarge its reach and impact." Social marketing, with its tie to mass media and its proven success, is such a "new and better" methodology—a new opportunity that should be seized *now* to help all nations deal more effectively with their health problems. ■

## A Guide for Primary Health Care: The MEDEX Series

by Richard A. Smith, John Rich, and Sunil Mehra

Since its publication in 1983, *The MEDEX Primary Health Care Series* has been distributed extensively, and today functions as a practical and flexible management and training device for new or existing primary health care (PHC) programs at various levels in 53 developing countries.

The 35-volume *MEDEX Series* was developed over an eight-year period by The MEDEX Group at the John A. Burns School of Medicine, University of Hawaii, numerous developing countries, and supported by the U.S. Agency for International Development. The primary health care techniques and educational materials found in this series were field-tested in Micronesia, and used in PHC programs in Thailand, Guyana, Pakistan, and Lesotho. It has taken the most important considerations in the development and expansion of PHC services and put them into a consistent and easily adapted format for developing countries. The *Series* can be used by planners, administrators, or trainers.

The materials are divided into curative, preventive, and promotional aspects of health care. The training curriculum is problem-oriented and therefore includes only information essential to training the worker to do his or her job. Sections within the *Series* cover: Systems Development Materials; Mid-Level Health Worker Training Materials; and Community Health Worker Training Materials. Currently, the *Series* is available only in English, although some sections have been translated into Spanish, French, Bengali, and Thai.

Since September 1983, this series has been requested and sent to 114 countries. Described in *World Health Forum* as "a total teaching system," it has been distributed to government ministries, nongovernmental organizations, private consultants, nursing schools, and other institutions and programs that are training health personnel and managers of primary health care services in developing countries.

Correspondence with health care professionals in 53 of the 114 countries indicate that the *Series* is being used in 267 PHC programs and projects of varying sizes in developing countries. Further documentation about applications of the *Series* is being gathered from a questionnaire sent to recipients of the manuals. A network of users of the *Series* is being developed as well, to expand its use through the sharing of adaptations, changes, and translations. Further communications and visits to selected sites where materials are in use are also being planned.

Recognition that nurses should play a particularly important role in PHC has led to significant interest on the part of international and national nursing organizations. The MEDEX Group has recently received requests for the *Series* from 31 nursing schools in eleven additional countries interested in revising nursing curricula to reflect a reorientation toward primary health care.

Projects with sectoral interests such as oral rehydration therapy, immunization, nutrition, and community sanitation, have used the materials to strengthen their own efforts. An example is a set of learning packages produced by WHO/UNICEF to be used in 17 countries. One quarter of the materials contained in the packages were taken directly from the *MEDEX Series*.

India's National Institute of Health and Family Welfare has used parts of the *Series* as the basis for management training, to be conducted nationally in over 50 training institutions for doctors, nurses, and other PHC health personnel. Another example of its versatility was its use as a guide for designing and building a health center in Burkina Faso that would reflect the needs of that facility.

During the past two years, information about the availability of the *Series* has been spreading worldwide. To strengthen this process, the MEDEX Group continues to provide copies upon request in an effort to extend the growing network of users.

For further information about this series contact: The MEDEX Group, John A. Burns School of Medicine, University of Hawaii, 1833 Kalakaua Avenue, #700, Honolulu, Hawaii 96815, USA. ■

*Terry Peigh is a Vice President of Foote, Cone & Belding Communications, a worldwide commercial advertising firm. He is an instructor at the University of Chicago's Community and Family Study Center, and has co-authored two books on mass media for social development.*

Available for \$32.95 from CBS Educational and Professional Publishing, Order Dept. 383 Madison Avenue, New York, NY 10017, USA.

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# The Colombian National Immunization Crusade: Coordination and Communication



This is "Pitin," a cartoon character symbolizing a healthy, happy, immunized child, who served as mascot in a 1984 Colombian mass immunization crusade.

In 1984 the Colombian National Health System coordinated a massive immunization crusade in order to vaccinate as many children in the country as possible against a number of common childhood diseases. Collaborating with the Colombian Government were the Pan American Health Organization/WHO, UNICEF, and UNDP. The communication strategies that were designed for this crusade helped the Health System to successfully vaccinate over 800,000 children on three separate days.

The possibility of a mass immunization campaign was first discussed during Colombian National Health Week in April 1984 with the idea of building on the initial child immunization activities that occurred during that week. Just two months later, Colombia launched a nationwide crusade to immunize nearly one million children under the age of four against diphtheria, measles, polio, tetanus, and whooping cough on three designated days: one day each in June, July, and August of 1984.

In order to accomplish this ambitious goal, Colombia had to organize and mobilize its resources to overcome the kinds of shortcomings that may be found in large scale campaigns, such as a lack of coordination of personnel, communications, transportation, or financing.

## Channeling Strategy

The need to involve multiple communication channels was recognized from the start. Before the Crusade began, the Ministry of Health, with assistance from the Pan American Health Organization and the World Health Organization, developed a channeling strategy. This strategy established an aggressive child identification process through direct health promotion activities. Health workers accompanied by community leaders visited households before each vaccination date to spread news of the Crusade, and more importantly, to identify children needing immunization. They collected information on each child such as name, age, sex, address and vaccinations needed. Children were then "channeled" to the appropriate health facility for vaccination on the prescribed dates. These visits provided important personal communication between individual households and the health centers or health posts during the Crusade. The channeling strategy also facilitated the evaluation phase since children's vaccination progress was tracked through the end of the Crusade. The impact of the Crusade was therefore more

more easily measured both during and after the vaccination activities. Also, since records were kept on each child, the strategy allowed for follow-up vaccination of those children with incomplete schedules.

## Getting Started

Communication of technical procedures was carried out by the Colombian Red Cross. More than 13,000 Red Cross members were trained as vaccinators. Sixteen thousand volunteers were trained in the channeling strategy and immunization techniques or received instruction in technical and administrative procedures, such as cold chain standards, organization of health posts, and record keeping. A booklet on technical and administrative norms was developed and distributed to more than 10,000 vaccination posts, and training in these standard procedures ensured uniformity throughout the country.

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*"... the press, TV, and radio played a major role in dramatically increasing the outreach capability..."*

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During the Crusade, both information and evaluation reports were distributed. Information reports were released every two hours on vaccination days, summarizing data on the number of children vaccinated in each health post. The mass media stimulated the Crusade by broadcasting these reports which fostered a wholesome rivalry between the different localities. The evaluation reports provided information on the results of the Crusade at the local, regional, and national levels.

Many political and social groups were called upon to extend the communication network established for this national effort. The President and the First Lady actively promoted the Crusade by conducting inauguration ceremonies on each of the three vaccination days at the Presidential Palace. The Ministries of Health and of the Interior sent representatives to municipalities to encourage their cooperation and support of health personnel. The Ministry of Education solicited departmental directors and over 200,000 teachers to help disseminate promotional materials. Air, sea, and river transportation was provided by the Ministry of Defense to deliver vaccines and set up vaccination posts in remote areas. The Catholic Church provided motivational materials, organized activities, and distributed messages about child health and immunization before the start of the Crusade. Other private,

volunteer, and recreational groups offered financial support for publicity, transportation, and mobilization of community members at the local level.

## Mass Media Contributions

Mass media made a fundamental contribution to the accomplishments of the Crusade. The press, television, and radio played a major role in dramatically increasing the outreach capability and focusing the population on child health and development. For example, Colombia's largest newspaper, *El Tiempo*, using the Crusade's mascot, Pitin, carried health messages to its largely urban readers, and alerted them to the upcoming vaccination days. Many other newspapers followed suit and adopted Pitin in their articles, helping to further spread the news of the Crusade. Calendars showing Pitin next to the vaccination dates were printed and distributed. Other printed materials such as growth charts with child immunization records, information on breastfeeding, nutrition, and treatment of diarrheal disease were developed and made available to parents at the vaccination sites. News programs on the national television and radio station carried stories of the Crusade efforts that reached an estimated ten to twelve million people. Well-known entertainers broadcast hourly appeals to parents to bring their children in for vaccination. The radio also carried hourly Crusade updates and encouraged people to participate. Other television and radio stations broadcast similar messages and programs to urban and rural areas assuring extensive coverage throughout the country.

## Results

The results of the Crusade are impressive. During the first vaccination day 804,053 children, or 87.6 percent of the target group, came for vaccinations. The second day of vaccinations brought in 854,570 children, or 93.1 percent. During the third and final round on August 25, 1984, 860,000 children, or 93.7 percent of the target group, were vaccinated.

The statistics clearly attest to a well-planned and executed campaign. The role that communications played in educating and mobilizing a large portion of the Colombian population was unquestionably a central factor in making the Crusade a success. ■

This article was adapted from *Assignment Children—A Journal Concerned with Children, Women and Youth in Development*, 65/68, 1984, UNICEF, by Robert J. Vittel, Information Assistant, Clearinghouse on Development Communication.

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