EXECUTIVE SUMMARY

This final report of the HEALTHCOM Project covers the period September 1985 through March 1991. Work was conducted by the Academy for Educational Development for A.I.D.'s Communication for Child Survival, or HEALTHCOM Project, under Contract DPE-1018-C-00-5063-00. The Office of Health and the Office of Education within A.I.D.'s Bureau for Science and Technology jointly managed the project, which was a continuation of the Mass Media and Health Practices (MMHP) Project, carried out by the Academy from 1978 to 1985.

In carrying out the HEALTHCOM Project, the Academy was assisted by several subcontractors: The Annenberg School for Communication of the University of Pennsylvania and Applied Communication Technology contributed to evaluation efforts; Porter/Novelli provided technical assistance in the area of qualitative and market research; and PATH (Program for Appropriate Technology in Health) assisted with materials development.

A. PROJECT PURPOSE

HEALTHCOM's primary purpose was to increase understanding of and to refine a methodology for the best use of modern communication, social marketing, and behavior analysis to modify existing child care practices. HEALTHCOM included a significant research and development agenda to investigate issues in numerous country studies. Such issues included: What role should mass campaigns play versus sustained communication efforts? How could the impact of such efforts best be measured? What are the most relevant intermediate variables of success? In what institutional context are these communication skills best left? In short, the project was charged with providing insights into issues of communication and institutional effects which shorter interventions had not been able to offer. In addition, a series of health practice studies used behavior analysis techniques to improve our understanding of the specifics of how to influence child survival practices such as vaccination schedule compliance and oral rehydration therapy (ORT) administration.

HEALTHCOM's objectives included the further development of a health communication methodology by applying it to an expanded array of child survival technologies and to the multiple practices that influence child survival; the integration of social marketing, product promotion, and consumer education into a health communication methodology; expanded applicability of this methodology; and further support for the process of institutionalizing that methodology.

B. PROJECT METHODOLOGY

The HEALTHCOM methodology has recognized that child survival is a medical, economic, social, and cultural challenge requiring multidisciplinary strategies and experience. The three contributions of social science which we believe have been most important in A.I.D.'s health communication approach are highlighted below.

Social marketing has provided a comprehensive organizational model for health communication which stresses the concept of fair exchange and the interrelatedness of
the consumer and the four Ps: the **product**/message, the **place** or distribution system, the **price** (financial, opportunity, and status), and **promotion** (the messages and channels used to influence the consumer). A.I.D.'s HEALTHCOM Project applied this strategy in many countries. In the Philippines, for example, measles vaccinations (product), were made available in Department of Health clinics (place) and boosted through "sales conferences" for clinic workers and radio and TV ads (promotion) emphasizing their urgency, convenience, and availability (price). Social marketing has also contributed useful research and monitoring methods: focus group discussions, tracking surveys, intercept interviews, shelf audits, and so forth.

**Behavior analysis** has provided systematic methods for observing and defining behaviors. These methods have been utilized in HEALTHCOM's studies of health worker communication skills in Ecuador and Nigeria. Program planners used behavioral criteria to develop a checklist for prioritizing acute respiratory infection (ARI) educational objectives in Honduras. Strategies for using positive reinforcement and other behavioral consequence principles in training and community education programs guided The Gambia's Happy Baby Lottery, Ecuador's Gold Star EPI campaign, and Indonesia's kader training program.

**Anthropology**, the study of human beings, their cultures, and their relationships in society, has been the third important contributor. As psychology provides insight into individual actions, anthropology can help explain the cultural context in which these actions thrive. Traditional methods of ethnographic research (e.g., observations and in-depth informant interviews) plus newer streamlined applications of these methods (e.g., rapid ethnographic assessment) have provided us with valuable information about culturally unique perceptions, beliefs, and practices. In Zaire, for instance, HEALTHCOM anthropologists found that village women perceived dehydration (lukunga) as a disease distinct from diarrhea and treated it by rubbing oil and ashes on the fontanelle. This important finding resulted in the development of educational messages linking lukunga to diarrhea and promoting ORT for its treatment.

Supporting this multidisciplinary approach is a genuine respect for the needs of the consumer, an understanding of integrated channels, and a systematic five-step process: 1) **Assess** the problem, the audiences' present behavior, knowledge, and attitudes toward the problem and the delivery mechanisms available to influence those audiences; 2) **Plan** a communication program that delivers messages and support to a specific audience segment through various channels in a way which is attractive, persuasive, and provides repeated exposure; 3) **Develop and pretest** materials and tactics for face-to-face, community, print, and mass media channels; 4) **Deliver** materials, messages, and support needed to complement service delivery timing; 5) **Monitor and change** tactics, messages, materials, and channels as needed to meet evolving audience needs.

### C. PROJECT ACTIVITIES

To apply the methodology to project objectives, work stipulated under the contract was carried out in three areas: institutional studies, health practice studies, and diffusion activities, briefly described below.

1. **Institutional Studies**

   The project supported efforts at its MMHP-established sites (Honduras, Ecuador, Peru, The Gambia, Swaziland, Lesotho, and Indonesia), continuing application
and institutionalization of the methodology. A variety of key institutional questions around such issues as timing, host agency, personnel, budgeting, and planning needs were continually explored within the context of project activities.

Of the original seven MMHP project sites, Honduras, Ecuador, Lesotho, and Indonesia continued to have a HEALTHCOM resident advisor working in-country, while Peru, Swaziland, and The Gambia received short-term technical assistance from the project.

Work in these countries included application of the methodology in Honduras to new health technologies such as acute respiratory infection (ARI) and to expanded models of collaboration and community participation. In Ecuador, the methodology was successfully applied to mass immunization efforts, and in Indonesia, the project was extended to a second site, Central Java, where the project worked with Helen Keller International (HKI) on vitamin A promotion. Management was a key focus in Lesotho, with efforts concentrated on building the skills of those within the Health Education Unit of the Ministry of Health, adding crucial staff members, and refining job descriptions. In Peru, The Gambia, and Swaziland, work was curtailed by host country decisions not to continue long-term technical assistance but rather to focus on short-term help. In Swaziland, for example, HEALTHCOM provided technical assistance to evaluate the impact of a radio-based school education program on immunization.

The project also conducted health communication interventions in ten new countries: Guatemala, Jordan, Malawi, Mexico, Nigeria, Papua New Guinea, Paraguay, Philippines, Yemen, and Zaire. New country sites allowed for increased private sector involvement, adaptation of the methodology for use in countries with limited resources, and increased use of innovative media and educational and supervisory techniques.

A typical HEALTHCOM program provided a resident technical advisor in communication for two to three years. This person worked with local institutions, both public and private, to plan and implement an effective health communication program and to train local counterpart professionals in HEALTHCOM strategies and methods. Short-term advisors in marketing, behavioral analysis, anthropology, and so forth, were provided to supplement the long-term assistance as needed, and an evaluation of project process and impact was conducted using both qualitative and quantitative methods.

Examples of HEALTHCOM's work in its new countries are varied and cover a range of methodological challenges. In Jordan, for example, where the population is well educated and has good access to media, HEALTHCOM developed a radio and TV campaign to address breastfeeding and birth spacing. In Malawi, where access to radio is limited, the focus was on print material and health worker training. The Philippines provided a unique setting for TV to support a measles immunization intervention. In Zaire, HEALTHCOM's contribution was in health worker training, with an emphasis on interpersonal skills.

2. Short-term Technical Assistance

The project responded to requests from USAID missions and host governments to conduct feasibility studies and workshops to assess the possibility of those countries becoming long-term sites or otherwise adapting the project methodology for use in-country.

HEALTHCOM provided short-term technical assistance to eleven countries in all regions, in addition to those countries which eventually became project sites. These included Bangladesh, Burma (now Myanmar), Burundi, Côte d'Ivoire, The Gambia, Haiti, Liberia, Mauritius, Peru, Rwanda, and Swaziland.
3. Health Practice Studies

Under the Health Practice Studies component of HEALTHCOM, the project carried out 12 studies pertaining to behavioral issues (related to both clients and service providers) in the area of child survival. The studies were integrated into specific country interventions as part of the investigative and formative evaluation stages of the methodology applied at a given site. The health practice studies were expected to modify and improve the methodology as well as support the interventions. Health practice studies were carried out in ten HEALTHCOM countries: Ecuador, Guatemala, Honduras, Indonesia, Lesotho, Malawi, Mexico, Nigeria, Philippines, and Zaire. Health interventions included ORT, EPI, ARI, and vitamin A.

All ten studies were designed to focus on observable behaviors. Measurement therefore relied more often on direct observation of target behaviors than on interviews and self-report. Another important characteristic of these studies was that they were designed to focus systematically on a specific behavior or on a behavioral thread in a communication activity. Many studies, therefore, lent an "operations research" perspective to functional problems in creating and sustaining behavior change. Many of the studies also provided a monitoring service for project participants. Despite the diversity of settings, project focus, and country conditions, the behavioral approach proved to be useful in health worker training, message and policy development, field research methods, and sustaining behavior change.

4. Research and Evaluation

The HEALTHCOM methodology is empirically based, relying upon initial studies of selected audiences and carrying through to product pretesting, project monitoring, and summative evaluation of project impact on targeted behaviors. Many valuable lessons emanate from the project's research and evaluation efforts. Through a series of related activities involving formative research, summative evaluation, and longitudinal studies in Honduras and The Gambia, HEALTHCOM has been able to measure the success of individual country efforts and gain insights into the broader issues of behavior change and institutionalization that can be applied across sites. These insights will help provide a foundation for work still to be done in highlighting the complexities of behavior change.

Formative, or developmental research was carried out by HEALTHCOM in all countries to provide information that allowed the project to plan on an empirical, client-centered basis and to function more efficiently. Formative research included such tools as quantitative developmental investigation, qualitative audience research, and monitoring. Formative research is grounded in an understanding of the audience, its cultural and economic context, and its perceived needs and resistance points. Investigation also gains detailed information about service delivery systems and communication channels. Research methods under the HEALTHCOM Project included large-scale surveys, in-depth interviews, focus group discussions, ethnographic studies, observations, and other techniques.

The long-term impact of HEALTHCOM's work was explored through longitudinal surveys carried out by Applied Communication Technology in Honduras and The Gambia, sites of the original MMHP work. Extended panel studies were carried out under MMHP and again in 1987. In Honduras, where institutional commitment was high, the methodology has continued to be implemented with impressive results. Oral rehydration solution (Litrosol) use increased from 6 percent to 36 percent in two years and childhood...
mortality associated with diarrhea dropped by 40 percent. The resurvey in 1987 showed that 45 percent of cases in the last two weeks were reported to have been treated with Litrosol.

By contrast in The Gambia, the program has not proven to be a long-term success due to a sharply reduced commitment of resources. Sixty-two percent of infant diarrhea cases in The Gambia were treated with a water-sugar-salt solution two years after it was introduced. Just as importantly, water-sugar-salt solution (WSS) use fell to ten percent at the time of the resurvey in 1987 after program support was abruptly terminated, demonstrating that long-term communication support is essential.

The work of the summative evaluation team, carried out in collaboration with local universities and other counterparts, is addressed in individual reports and in Part II of this report (Final Report of Evaluation Activities) produced by the Annenberg School for Communication, University of Pennsylvania. Country programs were extensively evaluated in Ecuador, Indonesia (Central and West Java), Jordan, Lesotho, the Philippines, and Zaire. More general case study reports were conducted for Guatemala, Paraguay, and Papua New Guinea. (Decisions regarding the nature of these evaluations are described in the Final Evaluation Report.) A range of research designs was applied, including before-and-after campaign surveys, clinic-based studies, KAP (knowledge, attitudes, practices) studies, and other specialized designs. Researchers explored a wide range of questions such as: What actually happened? Were messages learned and accepted? Were desired health outcomes achieved? For what interventions is the methodology most suited? What variables affect a program? Some key results include the following:

- In the Philippines, measles immunization coverage in the Metro Manila Region increased from 21 percent to 45 percent, and missed opportunities by health workers to give measles vaccinations decreased from 77 percent to 54 percent in less than a year.

- In Indonesia, use of vitamin A capsules in the Demak Regency of Central Java increased from 24 percent to 40 percent in one year among consumers with access to a health post.

- In Ecuador, 75 percent of mothers had an ORS packet in the home after one year and use of the packets increased from 38 percent to 53 percent.

- In Swaziland, the number of mothers who fed their children special energy-rich foods following an episode of diarrhea increased from 16 percent to 44 percent after 18 months.

- In Malawi, use of chloroquine among pregnant women in a three-community study increased from 25 percent to 91 percent in less than a year.

The Annenberg team also conducted cross-site analyses from which interesting generalizations can be drawn. For example, in EPI programs, we know that communication efforts have helped increase coverage and that access to good service and stimulation of timely consumer demand matter more than detailed knowledge about vaccine-preventable diseases. For CDD programs, communication has positively affected diarrheal disease control practices, although a number of programmatically significant concerns remain. ORT behavior (both the mixing and administration of the
fluids) is complex and efforts must be integrated with service and product delivery. Sustained behavior is especially important in this area. In general and across technologies, we can say that community influence matters both as a direct affector of individual practice and as a mediator of communication impact on individuals.

At its midpoint, the HEALTHCOM Project itself was evaluated by a team of independent professionals with experience in health, social, and management sciences. At A.I.D.'s request, the evaluation team examined the project both retrospectively and prospectively, looking at methodology, sustainability, institutionalization, integration, and management. During the course of the evaluation, team members visited Honduras, Nigeria, Indonesia, and the Philippines. Overall, the project was found to be "essentially on track" and contributing in significant ways to the role communication plays in primary health care. In looking towards the future, "streamlining" the methodology was proposed and the challenges of institutionalization were articulated.

A.I.D. also contracted a final independent evaluation of the HEALTHCOM Project in February of 1991. A summary of that report will be included in the final version of this document, when available.

5. Diffusion

As part of its mandate to disseminate information about its methodology as widely as possible, HEALTHCOM conducted extensive diffusion activities both in country sites and in the U.S. These included publications and reports for diverse audiences, training events of local, regional, and international character, videotapes, and a "stream" of presentations and papers to share the project methodology and project experiences. A number of HEALTHCOM media materials won prestigious awards during the contract period. A detailed list of HEALTHCOM deliverables is provided in Appendix C of this report.

Three of the project's special reports were published and were disseminated widely in the U.S. and overseas. The project "manual," Communication for Child Survival, and A Handbook for Excellence in Focus Group Research were both translated into Spanish and French, and the manual was also translated into Bahasa Indonesia. The manual has been requested by communication planners and health professionals in over 70 countries and has been used as a text in public health schools in the Third World and in the U.S. The Handbook and Managing a Communication Program on Immunization: A Decision-Making Guide, were both reprinted in order to meet the demands of interested audiences. Institutionalizing a Methodology for Public Health Communication has also been in high demand by other A.I.D. projects and among those in the field. Additional special reports have focused on the complex nature of behavior change and have used research results to highlight major issues in this area.

The project produced 40 field notes, many of which were translated into both French and Spanish for diffusion overseas. A volume of approximately 30 field notes will be published as a collection. Each note presents a mini case study, an in-depth look at a single methodological issue, or examination of a specific project activity. Authors have included HEALTHCOM staff, subcontractors, resident advisors, consultants, and numerous Third World counterparts.

Each of the health practice studies conducted by the project resulted in a professional journal-quality report and many of these have been accepted by peer review publications. In addition, both HEALTHCOM staff and the research subcontractors have written numerous articles and book chapters discussing project results or methodological
issues. HEALTHCOM experiences have been highlighted in publications such as Social Science and Medicine, Annals of Behavioral Medicine, Journal of Nutrition Education, Journal of Tropical Pediatrics, CHASQUI, American Journal of Health Promotion, Health Education Research: Theory and Practice, and others.

The HEALTHCOM scope of work also called for a "stream" of articles, papers, and presentations about the project methodology and findings. The contract called for at least 30 over five years; the project has documented over 170 formal presentations (given in A.I.D.-sponsored meetings, at professional conferences, at universities, and elsewhere) and papers contributed to professional journals, newsletters, conference proceedings, both domestically and internationally.

Training activities have included LDC, regional, and international workshops. Each HEALTHCOM site conducted both on-the-job training in aspects of the HEALTHCOM methodology for counterparts and collaborators and organized training events to further institutionalization of the methodology among diverse audiences. These sessions ranged from half a day in length to month-long workshops for professionals from throughout a region. The scope of work called for at least three workshops from one to three weeks each. The project conducted approximately 20 workshops satisfying this requirement, and countless others of a few days in length.

HEALTHCOM conducted regional workshops in Latin America (Santo Domingo), Africa (Nairobi), and Asia (Puncak, West Java) for resident advisors and their counterparts. The two- to three- day sessions gave participants the opportunity to review their activities and share lessons and concerns with professionals working in their part of the world. HEALTHCOM also conducted a week-long workshop at its Washington office for senior faculty in schools of public health both in the U.S. and abroad to introduce them to the HEALTHCOM methodology and to encourage linkages between U.S. and LDC-based institutions.

The project created three videotapes. Miriam: El Uso Exitoso de la Terapia de Rehidratacion Oral is a 23-minute training video for medical students which uses a dramatic storyline, animation, and technical presentations by physicians from throughout the Latin America region to provide detailed information about ORT. Making Things Clear is a 15-minute video in English and Tok Pisin for training health workers in interpersonal communication skills. It was created in PNG by the project and FirstTake Productions. Health Communication: Partnerships for Survival is a 30-minute video (English, Spanish, and French) created by the Washington office and Hr Productions to explain and illustrate the project methodology to health planners.

HEALTHCOM held a technical advisory group meeting in January of 1987 and each subsequent year. The project also conducted numerous briefings for A.I.D. officials and participated in a range of major child survival and communication events of special interest to A.I.D. Standard reports produced by the project have included implementation plans for each country site, evaluation reports for many sites, monthly reports, semiannual reports, and other reports as appropriate.

D. COLLABORATION

In addition to its work with subcontractors and collaborating institutions, HEALTHCOM has consistently pursued opportunities to work with appropriate private and public sector partners in the interest of extending program impacts, enhancing the quality of technical program inputs, and increasing prospects for program
institutionalization. The project explored various models for implementing communication activities, including contracting services from commercial research and advertising firms working directly with private sector counterparts, and mobilizing participation of large networks of both public and private institutions.

HEALTHCOM's partners have included such diverse groups as private voluntary organizations (PVOs), private indigenous foundations and institutes, ministries of health, market research and advertising agencies, community service organizations, pharmaceutical firms, bilateral donor organizations, other A.I.D. projects, WHO, and UNICEF.

Examples of successful collaboration include the following:

In Central Java, Indonesia, HEALTHCOM worked with Helen Keller International (HKI), a PVO engaged in vitamin A and other child survival technologies, on an innovative project integrating the distribution of ORS and vitamin A capsules.

In Ecuador, HEALTHCOM worked with the government and a private institution (the National Institute for the Child and Family, or INNFA) to reduce infant and childhood mortality and to strengthen MOH capacity for delivery of health services.

In Jordan, a private foundation, the Noor Al-Hussein Foundation, served as the counterpart organization.

In the commercial sector, market research agencies and advertising firms were instrumental in assisting HEALTHCOM's efforts in Indonesia and the Philippines.

Pharmaceutical companies helped in Guatemala and Malawi in product development and in conducting studies of patient compliance.

Among other initiatives, USAID projects participated in joint trainings, provided technical assistance as appropriate, and shared information on project development and implementation.

UNICEF, WHO, and PAHO were invaluable partners in social science research and matters of policy.

E. LESSONS LEARNED

Through its extensive experience in fourteen long-term countries and eleven short-term sites throughout Asia/Near East, Africa, Latin America and the Caribbean, a number of important lessons were learned. Issues of collaboration, monitoring and evaluation, training and curriculum development, integration, and community participation emerged as important challenges for the future. Other communication-specific lessons are summarized below.

- Each technology has its own communication needs (ORT requires skills training as well as attitude change; EPI focuses on time-point compliance; nutrition often requires small but durable changes in routine behavior; water and sanitation require a community rather than just individual changes).
Education by itself is not enough to induce or sustain most behavior change. The "Kap-Gap," or the discrepancy between those who have correct knowledge and those who demonstrate positive practices, is perhaps the major challenge of a communication program. Consumers may be prevented from adopting a new behavior by the "price" or "place" of the product or by obstacles in the culture or the service delivery system. Planners must investigate what motivates first trial and sustained behavior.

Audience research is indispensable to selecting strategies, testing materials, and monitoring effectiveness. The consumer's needs, perceptions, and the realities of his or her environment (economic, social, and cultural) should guide every aspect of the communication program.

Communication channels must be integrated to maximize their particular strengths. Although broadcast media may have the greatest frequency and reach among a particular audience group, print materials can provide detailed information and can be kept in the home to be used when needed; face-to-face interaction can provide personal reinforcement not easily achieved by other channels.

Short-lived campaigns are ultimately ineffective and can be harmful. Although pilot interventions can be useful to test strategies or to give high visibility to a health technology, the regular service delivery system is the long-term source of health services and must be strengthened; it can be easily undermined by one-time efforts which divert resources and energy.

Community participation helps sustain short-term media gains. The involvement of local groups in health promotion is indispensable in sustaining behavior change over the long term. The influence of community leaders and family members on the adoption of new behaviors should be presumed and carefully targeted.

Supply and demand must be balanced and provided together. Although a health communication project necessarily focuses on the creation of consumer demand, planners must coordinate with the supply structure to assure demands are not frustrated and programs undermined.

Behavior change requires continuity of resources and support. Changes in health practices take place over the long term, and new consumers are constantly entering the "market."

Measurement of cost-effectiveness is difficult but essential as part of the institutionalization process. Policy makers must be convinced of the efficacy of programs in terms of resources expended and results achieved.
Institutionalization is its own master, requiring specific strategies planned and initiated early. Communication programs are by nature cooperative efforts involving many partners who should be knowledgeable and committed to the approach as early in the process as possible. They will learn through experience and through collaboration and be reinforced through a sense of ownership in a program's achievements.

F. FUTURE DIRECTION

The challenge now is to sustain positive health practices over the long term and transfer communication skills to developing country institutions.

To meet this challenge, USAID is funding a second five-year HEALTHCOM Project. Working with governments, the private sector, and USAID Missions and Bureaus, HEALTHCOM II will provide assistance in several new areas.

HEALTHCOM will help country planners integrate communication activities across multiple disease programs to avoid contradictory messages, save research and programming costs, and link consumer benefits. Priority targets for integrated planning include:

- Diarrheal disease control
- Immunization
- Nutrition (breastfeeding, vitamin A)
- Maternal health and birth spacing
- Acute respiratory infections
- Malaria and other vector-borne diseases.

Training materials and workshops will upgrade counterparts' skills in communication planning and management, audience research, materials and message design, monitoring/tracking, interpersonal communication, and use of private sector resources. HEALTHCOM will also develop a formal health communication curriculum for health professionals and community health workers. The project will work with several countries to adapt and institutionalize that curriculum in public health schools and other local institutions.

The project will work with host governments and private industry (transportation, mining, and manufacturing) to expand child survival communication into the workplace environment.

By conducting studies of both communication program impact and cost, HEALTHCOM will help decision makers examine their own resources and goals, assess necessary levels of effort, and commit appropriate investments for communication activities.