

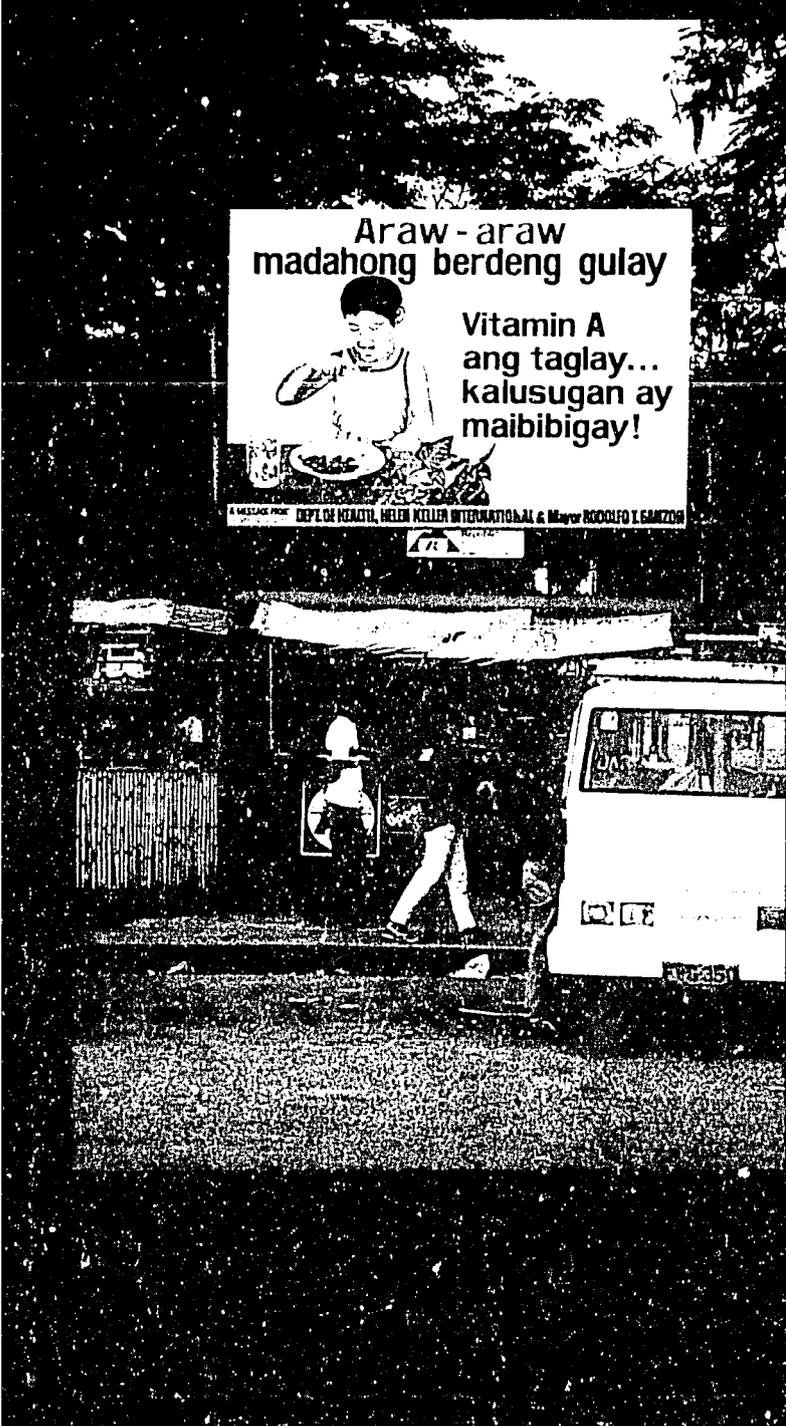
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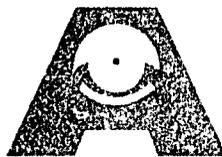
**Vitamin A
ang taglay...
kalusugan ay
maibibigay!**

MESSAGE FROM
DEPT. OF HEALTH, HELEN KILLER INTERNATIONAL & Mayor RODOLFO I. GANTON



A R E S O U R C E B O O K

NUTRITION
COMMUNICATIONS
IN VITAMIN A
PROGRAMS
A RESOURCE BOOK



International Vitamin A Consultative Group (IVACG)

The mission of the International Vitamin A Consultative Group (IVACG) is to guide international activities aimed at reducing vitamin A deficiency in the world. The group offers consultation and guidance to various operating and donor agencies that are seeking to reduce vitamin A deficiency and its accompanying blindness. As part of this service, IVACG has prepared guidelines and recommendations for

- assessing the regional distribution and magnitude of vitamin A deficiency;
- developing intervention strategies and methodologies to control vitamin A deficiency;
- evaluating the effectiveness of implemented programs on a continuing basis; and
- undertaking research needed to support the assessment, intervention, and evaluation of programs.

Monographs published by the International Vitamin A Consultative Group are

- *Guidelines for the Eradication of Vitamin A Deficiency and Xerophthalmia* (1977) (Available in English and French)
- *Recent Advances in the Metabolism and Function of Vitamin A and Their Relationship to Applied Nutrition* (1979)
- *The Safe Use of Vitamin A* (1980) (Available in English and French)
- *The Symptoms and Signs of Vitamin A Deficiency and Their Relationship to Applied Nutrition* (1981) (Available in Spanish only)
- *Biochemical Methodology for the Assessment of Vitamin A Status* (1982)
- *Reprints of Selected Methods for the Analysis of Vitamin A and Carotenoids in Nutrition Surveys* (1982)
- *Periodic, Large Oral Doses of Vitamin A for the Prevention of Vitamin A Deficiency and Xerophthalmia: A Summary of Experiences* (1984)
- *A Decade of Achievement: The International Vitamin A Consultative Group (IVACG) 1975-1985* (1987)
- *The Safe Use of Vitamin A by Women during the Reproductive Years* (1986) (Available in English, French, and Spanish)
- *Biochemical Methodology for the Assessment of Carotenenes* (1987)
- *Guidelines for the Use of Vitamin A in Emergency and Relief Operations* (1988)
- *Vitamin A Supplements: A Guide to Their Use in the Treatment and Prevention of Vitamin A Deficiency and Xerophthalmia* (published by the World Health Organization in conjunction with IVACG and UNICEF, 1988) (Available in English and French)
- *Guidelines for the Development of a Simplified Dietary Assessment to Identify Groups at Risk for Inadequate Intake of Vitamin A* (1989)
- *Methodologies for Monitoring and Evaluating Vitamin A Deficiency Intervention Programs* (1989)

These reports are available free of charge to developing countries and for \$3.50 (U.S.) to developed countries. Copies can be ordered from the IVACG Secretariat:

IVACG Secretariat
The Nutrition Foundation, Inc.
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Washington, D.C. 20036 USA

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Dear Colleagues:

The Office of Nutrition of the United States Agency for International Development is pleased to join with the International Vitamin A Consultative Group in offering this publication as a resource tool to those interested in nutrition communications programs. Over the past twenty years, the Office of Nutrition has invested in research programs and community programs aimed at using innovative communications techniques to improve the nutritional status and health of people in developing countries.

This publication is a collection of nutrition communications success stories. Though focused on the alleviation of vitamin A deficiency, the communications concepts and techniques are readily applicable to other health and nutrition issues. This publication has been designed as a companion document to another recent publication supported by the Office of Nutrition, *Getting Out the Message: A Review of Communications Strategies*. Together, these publications provide a picture of the positive influence that well-designed nutrition communications efforts can have on the lives of many people around the world. We would be happy to supply copies of both these documents upon request.

Sincerely,



Richard M. Seifman
Director
Office of Nutrition
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Dedication

Martin Solow

(19 May 1920 - 13 August 1991)

Martin Solow enthusiastically committed his time and talent to the IVACG Communication Education Task Force and its mission. As a member of the task force, he made a major contribution to the development of this resource book. In addition to participating tirelessly in many discussions and manuscript reviews, Marty diligently compiled information from the task force survey in 1987 and 1988. He strongly supported writing this book in a way that would be helpful to as many people as possible, particularly those in developing countries. The plight of the poor motivated and moved Marty to offer the best of his talent on their behalf.

Marty was a true and experienced expert in marketing and communications. IVACG colleagues remain ever grateful for his contributions in these areas. But IVACG also benefited from Marty's good humor, energy, curiosity, sense of adventure, and contagious good spirits.

IVACG dedicates this resource book to Marty with deep respect and affection.

Acknowledgments

During its long gestation, this resource book benefited from the contributions of many individuals. The text reflects not only the contributions of the IVACG Communication Education Task Force members, but also those of other professionals who offered useful suggestions through manuscript review. The IVACG Secretariat is especially indebted to Michael Favin, Claudia Fishman, Lonna Shafritz, and Suttalak Smitasiri for their detailed reviews, contribution of materials, and participation in ad hoc meetings.

The secretariat appreciates the support of the Office of Nutrition, Bureau for Research and Development, U.S. Agency for International Development during the evolution of this resource book. The secretariat thanks the Food Policy and Nutrition Division of the Food and Agriculture Organization of the United Nations for promoting ideas for this book through a workshop and task force meeting. Recognition also goes to F. Hoffmann-La Roche, Ltd Task Force SIGHT AND LIFE, which helped fund production of the book. The secretariat is particularly grateful to Laurie Lindsay Aomari for efforts to keep the task force working; as such, she became a member of the task force.

The IVACG Steering Committee steadfastly encouraged completion of this book despite several obstacles along the way. While the IVACG Steering Committee remains committed to providing current scientific knowledge to governments and communities, it is also dedicated to promoting program innovations and practical guidance that will control and prevent vitamin A deficiency.

Editors Carol E. Soble and Sanna Hans Longden and designer Adele Robey helped focus and polish this book. Their questions, attention to detail, and fresh outlook enhanced the work.

Most important, this book would not exist if it were not for the many creative and artistic individuals around the world who responded to the task force survey and to the secretariat's other requests for materials and information. While not all of these materials are included in this book, each example was thought-provoking and helped shape the book's final form.

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Foreword

When world leaders convened at the World Summit for Children in 1990, they agreed to meet the challenge of giving every child a better future. As they signed the World Declaration on the Survival, Protection, and Development of Children, they asked for the assistance of international, regional, and nongovernmental agencies and organizations in meeting this challenge. The Plan of Action for implementing the Declaration specifies major goals for the year 2000. Among these goals are the reduction of mortality rates and reduction of severe and moderate malnutrition among children under five years of age and the elimination of vitamin A deficiency.

Today, vitamin A deficiency in developing nations affects some 10 million children clinically and nearly 50 million more children subclinically. The World Health Organization (WHO) recognizes vitamin A deficiency as a public health problem in 37 countries.

To remedy this situation and eliminate vitamin A deficiency and its consequences, including blindness, and to contribute to the reduction of unacceptably high rates of child mortality, it is essential to marshal the current knowledge of the several disciplines concerned with vitamin A deficiency—including nutrition, health, biochemistry, agriculture, horticulture, education, communications, and development—and to apply that knowledge to interventions aimed at combating vitamin A deficiency.

In addition to measures that improve

the overall health and socioeconomic status of affected populations, several types of intervention programs are specifically appropriate to addressing vitamin A deficiency. The ultimate goal of these interventions is to increase a population's dietary intake of vitamin A. The interventions include nutrition education, production and consumption of vitamin A-rich foods, fortification of foods in existing diets, and periodic use of vitamin A supplements.

Nutrition education and communications can contribute to the control, prevention, and elimination of vitamin A deficiency as a direct intervention in its own right and by enhancing and reinforcing all other interventions. Innovative education of professionals and the public is fundamental to solving the problem at the community level. Essential, too, is encouraging the active participation of professionals and the public. It is the aim of education and communications to persuade the public to change behavior patterns and sustain newly acquired health and nutrition practices.

The purpose of this resource book is to provide professionals employed by governments or nongovernmental organizations and other institutions with a collection of examples from nutrition education communications programs implemented in different countries to control and prevent vitamin A deficiency. As such, the book is a resource for nutritionists and communications experts involved in planning successful nutrition

communications activities within larger, ongoing vitamin A programs.

Because the nutritionist and the communications specialist must work closely together in developing, planning, and implementing nutrition communications programs, this document offers information that bridges the two professions. In this way, the skills of one expert can complement the expertise of the other.

Part 1 of the resource book is a summary of the basic methodological issues associated with the planning, development, and implementation of nutrition communications activities. These issues have already been treated in great detail in *Operational Guidelines for Social Marketing Projects in Public Health and Nutrition* by UNESCO; "Social Marketing of Vitamin A" by the Academy for Educational Development; and *Getting Out the Message: A Review of Communications Strategies for Promoting Vitamin A Interventions* by the Vitamin A Field Support Project (VTAL).

To complement all these valuable documents, including the earlier, more conceptual works of Philip Kotler (*Strategic Marketing for Non-Profit Organizations*) and Richard K. Manoff (*Social Marketing: New Imperative for Public Health*), this book offers guidance in meeting the challenges of creatively transforming a scientific fact into a message for transmission through various communications channels—whether formal channels such as radio or informal channels such as a T-shirt. Thus, Part 2—the main part of this resource book—summarizes examples of communications activities and their associated creative materials, outlines successful efforts undertaken in several countries to control

and prevent vitamin A deficiency, and provides a list of recommended readings.

Rather than focusing on current scientific advances and knowledge in vitamin A, this resource book presents experiences, facts, and visual and textual information for an action approach to combating vitamin A deficiency in the field. While the problem of clinical vitamin A deficiency is most urgent in Asia, Africa, and Northeast Brazil, the most extensive intervention efforts to date have been limited to Asia. Thus, the examples presented in this resource book are drawn primarily but not exclusively from that region. More recently, however, professionals, nongovernmental organizations, and governments assisted by the international scientific and donor community have also initiated vitamin A interventions in Africa, where vitamin A deficiency has long been recognized as a pressing public health problem.

Even though the examples are primarily from a single region, this geographic focus should not be a disadvantage to nutritionists and communications specialists working in other areas of the world. Professionals dedicated to combating and controlling vitamin A deficiency can draw on the results and experiences of Asian nations. Through their own creativity, they can expand on these efforts by replicating, amending, or finding inspiration in the several examples for application to their own setting.

The IVACG Task Force hopes that nutritionists and communications specialists will make good use of this resource book for guiding the development and delivery of creative messages aimed at combating vitamin A deficiency through behavior change.

Credits for the photographs reproduced in this book go to the following individuals and organizations:

- Caruaru Vitamin A Program, Brazil: pages 23, 48 (top), 90
- Central Food Research Laboratory, Nepal: page 44 (bottom)
- Department of Public Health and Preventive Medicine, Tamilnadu, India: pages 65, 80 (top)
- Dharavi Xerophthalmia Project, India: page 96
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- National Institute of Nutrition, India: pages 2, 57 (top and bottom)
- National Institute of Nutrition, National Institute of Fruit and Vegetable Production, and National Farmers Association, Vietnam: page 49 (top)
- National Institute of Nutrition, National Institute of Fruit and Vegetable Production, National Farmers Association, and Women's Union, Vietnam: page 50 (top and bottom)
- Nutrition Center of the Philippines and J. Walter Thompson: page 67 (top, middle, and bottom)
- Bruce Robey for IVACG: pages 38 (bottom), 40 (bottom), 41 (top), 42, 43, 45, 46 (bottom), 47, 49 (bottom), 56, 79 (top and bottom)
- Victoria M. Sheffield for Helen Keller International: page 54
- Social Marketing of Vitamin A Rich Foods Project, Thailand: pages 26, 118, 121
- Joan Sullivan: page 44
- R. Alexis Thompson for IVACG: pages 38 (top), 39 (top), 41 (bottom), 44 (top), 46 (top and middle), 48 (bottom), 49 (top), 52 (top and bottom), 53 (top and bottom), 54 (bottom), 80 (bottom)
- Benedict Tisa: page 31
- Vitamin A Child Survival Project, Nepal: pages 55, 115
- Vitamin A Child Survival Project, World Vision Mauritania: pages 58, 59 (top and bottom), 60, 107
- Worldview International Foundation: page 54 (top)
- Worldview International Foundation: Nutritional Blindness Prevention Program, Bangladesh: pages 63 (top and bottom), 87

Recalling the Basics

PART
1

SEIZING THE OPPORTUNITY FOR CHANGE



O V E R V I E W

- Vitamin A deficiency is a global problem that affects the health of millions of children.
- Vitamin A deficiency can be overcome.
- Combating vitamin A deficiency depends on effective communications strategies that vary from program to program.
- Effective communications can stimulate families to engage in healthful practices.
- Social marketing techniques can encourage and help sustain needed behavior change.
- Nutrition communications programs can be enhanced by building on other local and national intervention efforts.

UNDERSTANDING THE ROLE OF EFFECTIVE COMMUNICATIONS

Vitamin A deficiency is a worldwide problem that afflicts millions of children. It can cause night blindness, alter resistance to infections, and, in extreme cases, induce incurable nutritional blindness. Even in its mildest form, vitamin A deficiency may seriously affect children's health, development, and survival.

Fortunately, there are methods to reduce and prevent vitamin A deficiency. The Food and Agriculture Organization of the United Nations (FAO), the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), the U.S. Agency for International Development (USAID), and many other international organizations offer advice on food production and consumption,

improving water quality, and sanitation. Some also provide vitamin A supplements and immunization services. But, to combat vitamin A deficiency over the long run, affected families must recognize that vitamin A deficiency is a critical nutrition problem and thus assume responsibility for adopting preventive measures.

Severe nutritional eye problems can be addressed expeditiously through the administration of vitamin A capsules. The possible immediate needs for vitamin A during infections, such as measles, can also be met by vitamin A capsules. This approach is a necessary measure. However, the preferred approach to prevent vitamin A deficiency is interventions that provide the vitamin through foods and their continuous consumption. It is important for high-risk



Unless program managers communicate in ways that people understand, little behavior change will result.



A cooking demonstration conveys information about preventing vitamin A deficiency.

families to recognize that vitamin A deficiency reflects a chronic dietary problem that can often be corrected within their available means. In northern Bangladesh, for example, garden projects have motivated families to grow vitamin A-rich foods, thereby ensuring that vital nutrients will always be available. Sugar was fortified with vitamin A in Guatemala, and monosodium glutamate (MSG) was fortified with vitamin A in Indonesia and the Philippines. In other countries, food diversification programs and cooking demonstrations have proven particularly useful in promoting the production and consumption of vitamin A-rich foods and changes in dietary behavior.

All approaches to preventing vitamin A deficiency depend on effective communications to achieve their goals. Managers of vitamin A-deficiency intervention programs can encourage needed behavior changes through a

variety of communications techniques. Effective communications, therefore, is crucial in overcoming the problem of vitamin A deficiency.

Communications takes several different forms. People talk to each other. They listen to the radio and watch television. They look at signs along roads or on buildings. They read brochures and newspapers, and they participate in folk shows. There are several ways to reach people. But, unless program managers communicate in ways that people understand, little behavior change will result.

This IVACG resource book offers suggestions and techniques for communicating the right messages to the right audience. It is intended to guide efforts aimed at improving a community's nutritional status through the development and delivery of appropriate messages. The resource book outlines the



various steps in message development and provides examples of creative materials such as posters, flipcharts, T-shirts, and even clown acts used in different countries. The examples are treated as practically as possible. Seven case studies also report on the effectiveness of various communications strategies in vitamin A-deficiency intervention projects.

While this resource book emphasizes vitamin A intervention, the general techniques and examples presented here can also be adapted for interventions directed at diarrhea control, immunization, iodine deficiency, and other efforts that encourage behavior change. The resource book demonstrates how to develop an effective communications program and where to find expertise to support nutrition communications efforts.

SOCIAL MARKETING

Commercial food advertising has demonstrated that changing the dietary behavior of families is apparently not as difficult as once envisioned by nutritionists. Yet, the comparatively limited results reported by nutrition education programs reflect, in part, the mode by which messages with nutritionally correct content have been transmitted to the family. Often working alone and forced to assume the role of communicators, nutritionists have traditionally emphasized the transfer of scientific knowledge. Their best intentions usually yielded disappointments—people were not persuaded and motivated to change their behavior as hoped.

Merely providing information obviously was not enough to change human behavior; new techniques were needed to supplement existing ones.

Some of these techniques came from the commercial marketing sector, which has devised a host of strategies to change human behavior. These strategies can, for example, successfully motivate a particular audience to buy one brand of processed food over another. Given that the purpose of vitamin A intervention programs is also to change dietary behavior, some commercial communications techniques are believed appropriate contributions for bringing about the needed behavior change that ensures a population's health and well-being.

In particular, one new approach to nutrition education is called *social marketing*—the design and promotion, through culturally acceptable means, of a socially beneficial idea based on consumer needs and wants. Social marketing systematizes many of the traditional approaches to nutrition communications. Specifically, it prescribes a clear set of steps that call for conducting a field investigation, identifying the target audience, developing creative messages, crafting a strategy for delivering the messages, and selecting the appropriate media (such as radio, banners, and folk shows) to communicate the messages. The first part of this resource book summarizes the steps involved in this and offers examples from vitamin A interventions.

COORDINATION AND COLLABORATION

The success of a nutrition communications program can be enhanced by building on other ongoing national and local agricultural, social, and development programs. Coordination with other programs offers the opportunity to learn from earlier program successes, draw lessons from program shortcomings, expand the network of useful contacts,

Building on ongoing programs can mean efficient use of scarce or limited resources.



and generally gain widespread program support among government decision makers and nongovernmental organizations. Further, building on ongoing programs can mean efficient use of scarce or limited resources. Coordination also ensures that all ongoing interventions support one another. Over the long term, a collaborative effort can lay the foundation for future comprehensive nutrition communications programs.

One strategy for formalizing program coordination is to create a coordinating or oversight committee to oversee and endorse project activities. Such a committee is an essential component of vitamin A–deficiency intervention programs, particularly when a nutritionist or communications specialist is working alone. A committee might include the staff of other ongoing programs, national and/or local decision makers, representatives of nongovernmental organizations, respected community

leaders, and others as appropriate.

A coordinating or oversight committee can expand the span of responsibility for a program as committee members grow to claim ownership of the project. A committee can also bring to the project a broad range of resources—in the form of funds, expertise, and access to influential decision makers—otherwise unavailable. Finally, a coordinating committee can help project managers keep program goals in mind.

While an oversight committee is capable of enhancing program effectiveness, it can also impede progress, especially if members' conflicting views create a decision-making impasse. Such roadblocks can be minimized by clearly delineating the committee's scope of decision making and specifying guidelines for resolving disagreements. It is also important to ensure that committee membership is limited to relevant organizations, agencies, and individuals.

DEVELOPING THE COMMUNICATIONS STRATEGY



O V E R V I E W

- An overall communications strategy provides a framework for developing and delivering messages aimed at changing nutrition practices.
- A communications strategy should provide answers to six questions
 - To whom should the message be directed?
 - What message should be communicated?
 - How can the message best reflect the target audience's attitudes and beliefs?
 - Which media should be used?
 - What settings are most appropriate for effective communications?
 - What times are best suited to successful communications?
- The choice of a communications strategy must be linked to the planned vitamin A intervention.
- The development of an appropriate communications strategy must follow a systematic field investigation into the knowledge, attitudes, and practices of the target population.

Whether a few lines on a poster or 200 words in a radio commercial, every message should be based on a well-developed communications strategy. The strategy is the skeleton of the communications package and consists of all the basic decisions about the communications program. This chapter provides the foundation from which you can build a communications strategy. It also guides the development of accompanying creative materials. If possible, you should draw on the professional expertise of communications specialists; in fact, this resource book makes several suggestions about how to find such specialists. It can also assist you in discussing your commu-

nications needs with your advisers. As a general rule, all communications strategy decisions and information should be clearly documented to aid in discussion, instruction, and the inevitable revisions.

THE SIX QUESTIONS

The communications strategy should answer the questions "to whom," "what," "how," "which," "where," and "when."

TO WHOM SHOULD THE MESSAGE SPEAK?

The recipients of the message you want to convey are called the *target audience*. The target audience might be all the women in a village, the village's community health workers, a town's



The message content should also deal with resistance points—barriers that prevent people from changing their behavior.

teachers, or local policy makers, just to name a few possibilities. The target audience can be further divided into more specific groups or segments whose unique characteristics dictate a particular communications strategy. For instance, the village women could be segmented into groups of pregnant women, nursing mothers, and mothers of children six months to six years of age. Mothers-in-law could be an additional segment albeit a lower-priority group. Although mothers are the chief decision makers for child feeding, mothers-in-law are often important influencers of feeding practices.

When identifying the target audiences, you must also consider the groups outside the family network that will be involved in the intervention program. At the community level, political and religious leaders as well as teachers, medical staffs, midwives, and other workers are important actors. At the provincial level, government policy makers, nongovernmental organizations, medical staffs, and social scientists in health, agriculture, and education can play a role. Given that all of these groups will have an impact on the program's success, they must be considered from the start.

WHAT TO COMMUNICATE?

The communications strategy should clearly describe the *message content* for each segment. The message content is the behavior you want to encourage—for instance, mothers should add two tablespoons of cooked, mashed green spinach leaves to children's porridge twice a day. The message must be highly precise and clearly state what the mothers should do. For example, "Feed green leaves to your children" fails to specify the types of leaves to be fed, whether

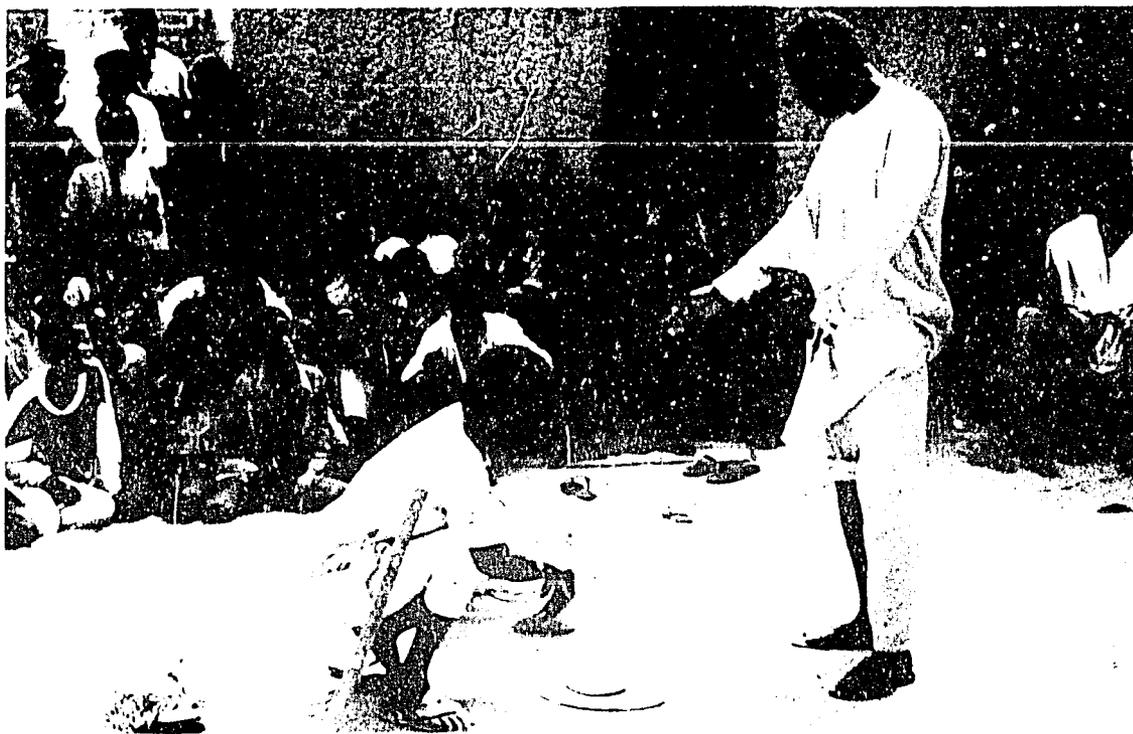
they should be raw or cooked with a little oil, the frequency of feeding, or the amount to give children of various ages.

The message content should also deal with *resistance points*—barriers that prevent people from changing their behavior. Traditional views of "good" or "bad" foods, religious prohibitions against children's consumption of certain vitamin A-rich foods, or the feeding of such foods at certain times of the year must be considered in developing the message content. For example, a communications program in West Sumatra revealed the following common resistance points:

- Mothers voiced strong apprehension about the digestibility of green leafy vegetables (GLVs), fearing that such vegetables would cause diarrhea in infants.
- Children over two years of age usually decided for themselves what they would eat; they did not like GLVs.
- Pregnant women feared that eating extra GLVs would cause a difficult delivery.
- Mothers said that feeding GLVs every day would be boring.
- Mothers believed that GLVs were not easily available.
- Because blindness is determined by God or other deities, nothing can be done about it.

Other barriers might be the target audience's perceived economic, time, and material constraints or the power of the audience to make and act on a decision.

While it is essential to meet these resistance points (for instance, by saying that "people have a responsibility for maintaining their God-given good health"), it is also necessary to demonstrate respect for cultural traditions and norms. An appropriate "spokesperson" who acknowledges the



Village dramas containing vitamin A messages build on the African oral tradition.

audience's point of view needs to be designated. When program organizers respect and build on local customs and practices, they will earn trust—which is crucial for change.

HOW TO COMMUNICATE?

Obviously, if you want people to engage in a certain behavior, you should explain to them the benefits of following a particular practice. The advantages must be couched in terms of the target audience's needs or concerns. For example, when encouraging mothers to feed children vitamin A-rich foods, it is important to stress that improved nutritional practices can prevent night blindness, prevent permanent blindness, increase resistance to illness, and help maintain good health.

The communications strategy may call for the same message to be communicated in several different ways.

The strategy could, for example, be designed to inspire mothers to change their behavior by portraying a healthy future for their children, cautioning mothers about the dangers of blindness or bad health, describing healthy and prosperous children taking care of their elderly mothers, or flattering mothers by reinforcing their love for and care of their children. The communications strategy should also spell out the tone—whether serious, humorous, realistic, or authoritarian—that should be expressed in the creative messages.

WHICH MEDIA TO USE?

With decisions made on the target audience and its segments, the content and tone of the messages, and the attitudes that underlie the message, the next step is to determine which media are appropriate for conveying your messages to the target audience. It should be noted,



A credible field investigation ensures that the communications strategy is structured around reliable information on the knowledge, attitudes, and practices of the target audience.

however, that decisions about communications channels could be the first or second step in strategy building and, accordingly, can define the audience segment and the message content.

In either case, the options extend to such conventional communications channels as posters, pamphlets, and face-to-face communications. Examples of frequently used channels are radio, television, and billboards. Other possibilities that make unique use of local opportunities include wall paintings on village houses, signs on the backs of tricycles, and folk songs and shows. Specialists trained in the development of creative messages can prepare materials that are appropriate for the media chosen. Chapter 4 of this resource book provides more information on this topic.

WHERE TO COMMUNICATE?

It is important to know the settings in which the target audience will be most receptive to your message as well as the settings in which large numbers of people can be reached. Is it the home, the school compound, the clinic, the marketplace, or a combination of settings? Different audience segments may have different preferences and, as a result, be more or less responsive to your message.

WHEN TO COMMUNICATE?

Timing is also important to the communications strategy. You should find out when people listen to their radios, when it is convenient for them to talk to health workers, and what months are best for folk shows. In general, it is important to identify the full range of opportunities and constraints that can enhance and detract from audience receptivity to the message.

USING INFORMATION TO DEVELOP YOUR STRATEGY

The answers to the six basic questions of to whom, what, how, which, where, and when offer program planners several options in developing the communications strategy. These options, however, are influenced by the customs and practices of the target audience whose behavior you hope to change. Basic information on the target audience's current knowledge, attitudes, and practices can help you decide, for example, about the advisability of

- targeting pregnant women, mothers of weaning-age children, mothers of older children, or all mothers and, if necessary, assigning priorities to segments of mothers;
- asking mothers (and fathers) to feed children carrots, spinach, or papaya in forms acceptable to children and parents—assuming that such foods are available and within families' reach or means;
- motivating parents by telling them that feeding green leaves will help prevent night blindness, aid in fighting illness, help maintain overall health, or ensure a combination of favorable outcomes;
- cautioning or flattering the audience; and
- using health workers or mass media such as radio to carry the messages.

Whatever the intervention, it is essential to follow a systematic approach to information collection. Chapter 3 outlines the types of information that can provide the basis for designing an intervention program's communications strategy. It also describes some of the basic principles and methods that guide any field investigation associated with the



development of a communications strategy.

It is important to note, however, that the development of a communications strategy usually follows a process of trial and error. Information uncovered during the systematic information collection effort almost always triggers revisions to the communications strategy.

Nonetheless, the field investigation itself must follow generally accepted methods of information collection. A credible field investigation ensures that the communications strategy is structured around reliable information on the knowledge, attitudes, and practices of the target audience.

The results of the field investigation play an important role in the design of the creative materials that support the communications strategy. Chapter 4 discusses how the information collected during the field investigation provides strong insights into the factors that influence the target population's food habits. The information, in turn, suggests a range of approaches, media channels, and media formats for communicating a program's message. Once developed, the messages and materials must be pretested to determine if they will motivate the desired behavior. Chapter 5 stresses the importance of pretesting messages and materials and notes that pretesting often results in another round of revisions to the form and content of a communications strategy.

Before initiating the information collection activities, it is a good idea to explore whether any of the required

information is readily available from *secondary sources* such as recent publications or surveys. Different sources may provide various elements of the needed information.

Possible resources include dietary or food consumption surveys, food availability reports, recent demographic and health surveys, sociological or ethnographic reports on the target population, and media habits studies conducted by market research agencies or advertisers. Often, these reports or databases are maintained in the collections of universities, ministries of health or agriculture, private voluntary organizations or nongovernmental organizations, and market research and advertising agencies.

The availability of secondary sources may reduce to more manageable levels the information to be collected, thereby substantially reducing the time and resources that must be allocated to information gathering. However, it is unreasonable to expect that all the needed information already exists in reports and databases. Usually, it is essential to fill in the information gaps by undertaking a field investigation as described in the following chapter. While few program managers may need to possess the skills associated with designing and conducting information collection activities and subsequently analyzing the results of such activities, it is still important to recognize what the process involves, what options are available, and how to secure the needed expertise.

CONDUCTING THE FIELD INVESTIGATION



O V E R V I E W

- A systematic field investigation is organized into three phases: information collection or formative information gathering, pretesting, and evaluation.
- Formative information gathering discovers the facts on which an intervention is based and can take the form of a quantitative or qualitative inquiry.
- Qualitative research can be useful as a basis for nutrition communications because it reveals attitudes, beliefs, and practices.
- Formative information gathering—whether quantitative or qualitative—demands decisions about
 - what groups to study;
 - where to conduct the investigation;
 - number of persons to interview; and
 - method of sample selection.
- Assistance in carrying out formative information gathering is available from several public and private sources.
- Pretesting of information collection tools and training of interviewers is essential to ensure reliable field investigation results.

UNDERSTANDING TYPES OF INFORMATION COLLECTION

Three basic types of information collection activities provide needed information at each stage of the intervention: information collection or formative information collection, pretesting, and evaluation. *Information collection* (also called *formative information collection*) discovers the facts on which an intervention project is based. *Pretesting* involves gathering reactions to the creative materials from the target audience before the materials can be used. *Evaluation* is the process of

determining whether a project has or has not succeeded.

The formative information collection effort may be structured around quantitative or qualitative information gathering. *Quantitative studies* are conducted with questionnaires that offer respondents a choice of answers. They are useful for learning, for example, how many people eat which kinds of foods and in what amounts, grow their own food, own radios, or have children under six years of age. *Qualitative* information collection relies on flexible, open-ended questions and explores, for example,



Individuals who collect qualitative and quantitative information may need to be trained to enhance their interviewing skills.

mothers' beliefs about the causes of blindness, mothers' attitudes toward food preparation methods, or culturally acceptable weaning practices.

A qualitative inquiry can be useful in providing a basis for a nutrition communications strategy. The reason is that communications development depends largely on the target audience's attitudes, beliefs, perceptions, and hopes and fears. Attitudinal information may be collected through interviews in which all the words of the respondents are recorded and considered important. Open-ended questions are more likely than questionnaires to elicit unexpected information. In other words, while respondents might not offer much information through structured questionnaires, they will—with patient probing—offer more detailed information when the same question is posed as a series of indirect queries.

Qualitative information gathering offers several options for data collection. For example, *observations* are normally used whenever “asking” is suspected to yield incorrect, imprecise, or incomplete information. Observing a mother prepare a meal is likely to generate more correct, precise, and complete information than asking her to describe traditional cooking methods. It is important to note, though, that only practice- and behavior-related information can be collected through observation.

To understand attitudes, it is essential to ask questions. Two questioning techniques are particularly useful—the individual *in-depth interview* and the *focus group discussion*. The individual in-depth interview calls for one investigator to interview one respondent, sometimes for several hours. Focus group discussions are small groups—usually

eight to 12 people—that talk about a problem with the help of an impartial investigator called a moderator; a notetaker is also present. Each group is composed of people with similar interests, perhaps drawn from one segment of the target audience (for instance, mothers of infants who are newborn to six months old). Focus groups have the potential for eliciting much useful information but require well-trained moderators. If the services of experienced moderators cannot be arranged, it is important that a project staff member undergo moderator training. While the in-depth interview and focus group discussion each seek the same information, the use of both approaches is likely to produce richer and more complete information than the use of one alone.

Individuals who collect qualitative and quantitative information may need to be trained to enhance their interviewing skills. They must also understand the purpose and subject of the information-gathering effort. In addition, the individuals charged with analyzing qualitative interviews must have expertise and training in discerning a population's behavior patterns, beliefs, and biases. In quantitative research, interviewers must be able to read a given set of questions as they are printed on a survey form, ask respondents to choose among several predetermined answers, and report correctly. The answers to the questions are summarized and then tallied for analysis.

It is important not to initiate development of a communications strategy until the *baseline information*—that is, the facts that exist before a project starts—has been completely collected. Otherwise, you will not be able to develop messages that avoid resistance



points and motivate behavior change. Moreover, it will be impossible to measure later the effectiveness of the selected intervention.

MAKING DECISIONS ABOUT INFORMATION COLLECTION

Decisions on the following issues form the basis for the design of your formative information collection effort. You may wish to consult with specialists experienced in conducting formative information collection.

- Who should be included in the *sample groups* for the field investigation—the small but representative populations from whom the information is collected? The answer depends on whose behavior you suspect may need to be changed (for example, mothers, pregnant women, or fathers who buy the food) and who is believed to exert influence in changing these behaviors (mothers-in-law, village leaders, or health workers).
- Where should the field investigation be conducted? In all the provinces or districts where you want to launch the communications program or in only some of them? The answer is dictated by differences across various regions. The more differences you recognize, the more areas that should be sampled.
- How many people should be interviewed? How many focus groups should be conducted? Here, again, the guiding considerations are the known or suspected differences across various segments of the population.
- How should the sample be selected? Strict sampling considerations are not necessary for qualitative research. Nonetheless, you should try to make sure that every group or region is represented.

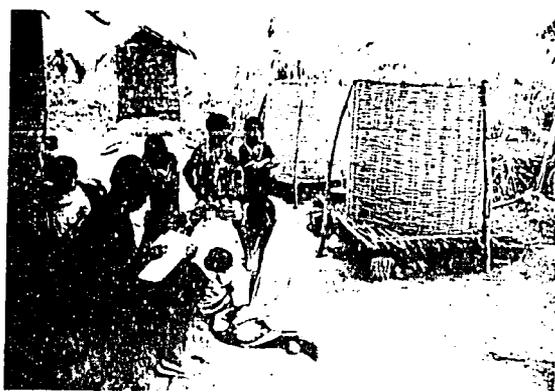
CARRYING OUT THE FIELD INVESTIGATION

You will probably not conduct the field investigation alone. Any organization that assists in the field investigation should have experience in communications development, qualitative information collection, and the study of rural populations, particularly semiliterate or illiterate peoples. It would also help if these organizations employed a staff of trained, in-depth interviewers and moderators.

Many organizations may not know a great deal about vitamin A deficiency. It will be your responsibility to provide them with the relevant information. Therefore, it is important that the organization(s) that supports your efforts demonstrates enthusiasm about learning a new subject and agrees to participate actively with you in the program.

Specialists with experience in qualitative research can be found in

- the sociology, anthropology, or psychology departments of local universities and colleges and national institutes;
- organizations experienced in education, particularly vitamin A education, in developing countries. Examples include Helen Keller International and Sight Savers (Royal Commonwealth Society for the Blind);
- market research and communications organizations with specific expertise in social marketing. Such organizations include the Manoff Group, Inc. (formerly Manoff International); the Academy for Educational Development; the Educational Development Center, Inc.; and the Worldview International Foundation;
- international organizations such as the Food and Agriculture Organization of



A mother shares important information in response to an interviewer's questions.

the United Nations (FAO), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF), and the World Health Organization (WHO); and

- various country agencies such as the U.S. Agency for International Development (USAID), the Danish International Development Agency (DANIDA), the Swedish International Development Authority (SIDA), and others.

Before looking for external assistance, you should make sure that you have tried to take advantage of all the expertise in your own country. This may take some time but will likely yield results.

The following steps should guide the collection of information:

- Design appropriate question

guides, focus group discussion guides, or observation guides after determining the best wording of questions, probes or follow-up questions, methods for approaching the same information from different angles, and techniques for resolving anticipated problems.

- Pretest the guides to make sure that the persons to be interviewed can understand and respond to the questions, that interviewers and moderators are physically able to handle the materials comfortably, and that the questions generate the needed information.

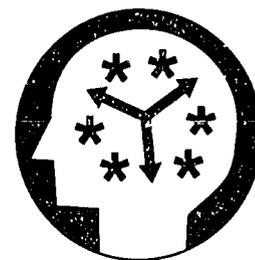
- Plan and conduct the training of interviewers and moderators who will be entrusted with the job of information collection.

- Collect the needed information and monitor the information collection process to ensure that the information reported from the field is useful and reliable.

- Evaluate the information and decide if the communications strategy needs to be revised.

It is critical to carry out a credible field investigation, as the results provide the skeleton of the communications strategy. In fact, the results of the investigation will likely trigger revisions to the strategy. As noted earlier, the development of a communications strategy is a process of trial and error. Revising the strategy is a common feature of that process.

USING CREATIVITY TO DELIVER THE MESSAGE



O V E R V I E W

- After completing the field investigation and revising the communications strategy, the next step is to develop the creative materials containing creative messages that put the strategy into action.
- The creative messages must build on the attitudes, perceptions, beliefs, preferences, and resistance points disclosed by the field investigation.
- The availability of media outlets and the target population's media habits are important criteria in developing the creative materials.
- Each medium offers several options for delivering the message. Creative treatment of the message and the format selected for conveying the message must be compatible.

The next step after completing the information collection effort and fine tuning the communications strategy is to develop the creative materials that put the strategy into action. Stated another way, the creative materials, which can take several forms, must necessarily transform the communications strategy into persuasive messages that motivate the desired behavior change among the target population. Experience has demonstrated, however, that factual and scientific information alone does not promote healthful practices.

Instead, the development of creative messages must build on the attitudes, perceptions, beliefs, preferences, and resistance points disclosed by the field investigation. In fact, the information gathered from the field provides the basis for constructing a detailed profile of the target population. That profile should

reflect points of entry to the target population's collective value system and suggest approaches or angles for devising the needed messages.

Once the angles for message development are clearly defined and the scientific content of the message determined (e.g., feed mashed papayas once a day to your child), the challenge is to transform the content into creative messages that bring about the desired behavior change and sustain that change over time (e.g., "The doctor says that only when a child receives mashed papayas once a day will the child be active and healthy"). Creative messages embody a special, often intangible quality that conveys a fresh and sometimes unique perspective that respects tradition. By casting new, desirable behaviors in terms of existing belief and value systems, creative messages do not appear to promote a



Creative messages are attention-getting, memorable, persuasive, and convincing.

radical and threatening departure from tradition. They nonetheless motivate needed change.

In a practical sense, creative messages are attention-getting, memorable, persuasive, and convincing. They appeal to the target audience's "hot buttons" and trigger the desired response: the adoption of a specific healthful behavior. In the above example, the hot button is parents' concern over their children's vigor and health. This concern was elicited during information collection in a focus group discussion.

It is clear that the success of a message in bringing about the intended behavior change is largely dependent on the creative "packaging" of ideas. That is, a message must reflect a tone, style, and approach acceptable to the target audience—or else it will go unheeded. Yet, first and foremost, the decision on what to convey and how best to package it must be based on the information disclosed through the field investigation. It is this information that provides the snapshot of the target population and the associated insights for message development. Successful program planners must remain mindful of the profile of the target population.

The challenge, of course, is how to develop *creative* messages. One solution might be to hire creative professionals. These individuals may work independently or be employed by marketing organizations or advertising agencies. It is important, however, not to let these communications professionals create exciting program materials before arming them with complete information on the communications strategy. The most innovative messages are not a substitute for a sound, well-considered strategy. Further, it is crucial that the creative

treatment of the materials enhances the message by making it clear and convincing rather than submerging it in an excess of creative frills.

In some cases, budget limitations or the absence of marketing agencies in a given area dictate in-house development of creative messages. This resource book provides suggestions for developing those messages. You may find others involved in nutrition projects in your region, or perhaps some organization in the area can conduct a workshop for your staff on creative message development.

CHOOSING APPROPRIATE MEDIA

Before developing the creative materials, you should make decisions about the available media outlets and their suitability to program goals. Such decisions help define your needs for creative materials. *Media* can refer to any form of communications, including radio, television, posters, flipcharts, information leaflets, folk songs, and face-to-face conversations.

The most important criterion affecting the choice of media is how the various media reach the target audience. Knowledge of the media habits of the target audience—for example, how often and at what time do audience members listen to the radio—is critical in selecting the appropriate communications channel(s).

In many cases, however, the preferred medium may not be the one that the target group is in the habit of using. For instance, few households in rural India own radios. Yet, radio was the medium of choice in a recent communications strategy. Project managers, believing that radio was an important medium for conveying the necessary information, made special



efforts to enhance radio's "natural reach" by organizing "radio circles" in which all the women in the village gathered around one radio to listen to the messages.

Sometimes a new medium can be created. For example, tricycle-rickshaws are a popular method of transportation in one region of the Philippines. Managers of a vitamin A program in the Philippines decided to place tin plates on the rear fenders of the tricycles to carry the necessary messages. In the Tamilnadu state of India, freestanding calendars suitable for placement on tabletops reminded people of the importance of consuming vitamin A-rich foods. In the Pernambuco state of Brazil, a clown visited a town to remind people that vitamin A capsules would be distributed the next day. In Bangladesh, the sails of river boats carried nutrition announcements, and, in other projects, messages were attached to the walls of village houses. An attractively designed T-shirt was used to promote the consumption of green and orange vegetables in Mauritania.

Consideration of the target audience's lifestyle will help you decide which media to use or create. For instance, in West Sumatra, all mothers visit the market once a week. Managers of a vitamin A program decided to place billboards and posters in the market and to broadcast messages over loudspeakers during market days. Similarly, a region's popular entertainment, such as folk dances and puppet shows, can offer opportunities to spread messages. In northern Bangladesh, folk singers sang about the importance of eating green leafy vegetables, and, in Dharavi India, plays and puppet shows conveyed vitamin A program messages.

Folk shows illustrate several factors

that must be considered in selecting the media appropriate to the target population.

- Does the entertainment reach the women of the region who, in most cases, are the target audience for nutrition messages? If taboos prohibit women from leaving the house or shows are performed far from women's homes, it is unlikely that the target audience will receive the necessary messages.

- How frequently is the folk show staged? If a folk show is held only once a year, it does not represent a useful medium. Some program managers, however, have initiated special shows. For instance, in northern Bangladesh, project staff hired folk singers to travel from village to village to sing specially composed songs on vitamin A subjects.

Anak Perlu Sayuran Hijau Setiap Hari



"Saya Sehat dan Kuat
Karena makan Sayuran Hijau setiap hari"

"A child needs green vegetables every day; I am strong and healthy because I eat green vegetables every day" is printed on this bag distributed at markets.



- How are the messages interwoven with the folk program? The entertainment should not distort the message in any way by, for instance, permitting a clown to make too much of a joke about eating yellow vegetables or insulting people who do not eat green leafy vegetables.

In some societies, cultural clues may suggest when *not* to use a particular medium. In certain places, for example, radio may have been used for political propaganda; therefore, the target audience would probably greet even high-quality messages with suspicion and mistrust.

Sometimes, however, mistrust of a medium dictates the need for efforts to increase the medium's credibility. Female community health volunteers in Nepal commanded little respect among mothers because of their illiteracy. Yet, program managers perceived the health volunteers as essential in conveying nutrition messages and, as a result, organized adult literacy classes for women.

SELECTING THE RIGHT FORMAT

When the media choices have been made, it is time to select the appropriate format. Each medium might lend itself to several format choices or options. For example, radio could be used to broadcast radio spots (short messages, usually one minute or less) or radio dramas (short plays or dialogues). Within a given format, several options for creative treatment might be appropriate. For instance, the radio spot could be a short talk by a doctor; the radio drama might be a conversation between a mother and a health worker or between two mothers.

Posters, booklets, flipcharts, training manuals, comic books, or any of a variety

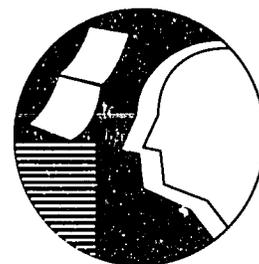
of other materials might be suitable when a health worker uses *face-to-face communications* to talk with a member or members of the target group. In fact, sometimes health workers are equipped with more than one poster on the same subject. The posters are frequently prepared in different formats to serve different needs.

For face-to-face communications, other considerations such as the health workers' educational levels and their confidence in addressing mothers may also dictate the choice of format. In Nepal, volunteer village eye care workers used a training manual that had large, clear illustrations and a small amount of text. An Indian project that was assisted by a marketing agency developed a more complicated set of 16 counseling cards, each with messages for a different segment of mothers (e.g., those with infants, with older children, with healthy children). In Bangladesh, a combination of media and formats proved effective. A roll-up cloth flipchart was used for discussions and question-and-answer sessions that were followed by a performance of folk songs and skits focused on basic nutrition messages.

An unusual program in Madras, India, was highly successful because the media and format were just right for the target audience—children between five and 12 years of age. The children learned how to grow their own green leafy vegetables by using 20 earthen pots and a variety of audio-visual materials.

In general, the target audience's tastes and preferences govern the choice of format and the creative treatment of the message. In addition, the format and message must be compatible to reinforce one another.

PRETESTING THE MATERIALS



O V E R V I E W

- Once the creative materials have been developed, program managers should pretest them to determine the target audience's reaction to the message.
- Pretesting usually takes the form of qualitative rather than quantitative information collection.
- The mechanics of pretesting may be different for different materials.
- Pretesting can lead to changes in both the form and content of a communications strategy and its supporting materials.

Once the creative materials have been prepared, program managers should pretest them to make sure that they convey the intended message. Pretesting provides the opportunity to revise program strategies and materials *before* officially launching the project. The most important part of pretesting is to present the materials to the target audience to determine audience members' receptivity to the message.

Specific questions that pretesting can answer are

- Do audience members understand the message?
- Do they believe it?
- Do they identify with the message—does it speak their cultural language?
- Do they find the materials interesting?
- Does the message encourage or motivate them to change their behavior?

CONDUCTING THE PRETESTS

Pretesting normally takes the form of qualitative rather than quantitative information collection, for it is only through detailed and in-depth reactions that the creative material's potential can be fully assessed. In conducting the pretests, it is advisable to use the assistance of market research agencies, education specialists with experience in qualitative research, or communications professionals—if resources permit. Otherwise, it is essential to use both in-depth interviews and focus group discussions to gather the needed information.

The mechanics of pretesting may be different for different materials. For example, it is sufficient merely to present a poster and record audience members' reactions to it. A radio spot, however, needs to be tape-recorded and played to representatives of the target audience. A



group of community health workers could use counseling cards with members of the target audience for a period of time and then report the audience's reaction.

USING THE FINDINGS

Pretesting can lead to changes in both the form and content of a communications strategy and its supporting creative materials. For example, in the West Sumatra project, the role of a popular singer needed to be changed from advice-giver to attention-getter. Similarly, when messages about daily feeding of green leafy vegetables failed to register with the

audience, the creative materials placed greater emphasis on the "daily" aspect of the message. Pretesting can also indicate the need to change colors, drawings, dress, or other details of print materials that may distract the audience or detract from the content of the message.

While the creative advisers usually do not design and conduct pretesting activities, they should participate in evaluating and using pretest results. They should also assume responsibility for revising and redesigning the creative materials in accordance with the pretest results.

LAUNCHING THE PROGRAM



O V E R V I E W

- With the creative materials pretested and revised, program managers must prepare for the official start of the communications program.
- Different elements of the project require different types of preparations.
- It is important to mobilize the full range of public and private sector community resources to start the program.
- Program managers must remain alert to opportunities for sustaining the community's enthusiasm for the program.

After the creative materials have been pretested and revised in accordance with the pretest results, it is time to prepare for the *launch* or the official start of the communications program. Different elements of the project involve different types of preparations, some of which are highlighted below. Commonly, not all of the media discussed in this chapter will be used by a single program.

MAKING BROADCAST ARRANGEMENTS

Prelaunch preparations may include making arrangements with radio and television stations for scheduled broadcast times of messages and for payment, if required. (Free radio and television spots are often broadcast at inconvenient times; therefore, it may be worth paying for suitable time slots.) It is important to put all these arrangements in writing to avoid any later misunderstandings.

If community health workers are responsible for informing and encouraging the community to listen to the messages, they will require concise information about the content of the messages, the station names, and scheduled broadcast times. It might also be a good idea to brief village leaders on the same matters. In fact, community leaders should be informed of upcoming broadcasts if, for example, their cooperation is necessary in forming a "radio circle" or locating a television set.

Systems for monitoring or evaluating the effects of the broadcasts must also be set up at this time as discussed later.

ORGANIZING BILLBOARDS AND POSTERS

Before the launch, program managers must decide where billboards and posters should be put up as well as how many will be needed. Logistical arrangements for delivering posters to the required sites



The ability to keep momentum going is sometimes the difference between program success and failure.

must be worked out, including the type of transportation and who will assume responsibility for collecting, distributing, transporting, and posting the posters. In addition, community health workers should be briefed or rebriefed about the overall media plans and might be recruited to assist with the above arrangements.

TRAINING FOR FACE-TO-FACE COMMUNICATIONS

Once again, program managers must attend to the logistics of distributing required materials to the communicators. But more important, program staff or the creative advisers and technical staff (e.g., nutritionists, home economists, horticulturalists, or health staff) must plan, organize, and undertake the training of the communicators so that they convey program messages accurately and effectively. For instance, the communicators must thoroughly understand the messages they deliver to the target audience. Further, they must be trained and gain practice in using the creative materials.

It is also important to make sure that the field staff—health, nutrition, horticulture, and social development workers—are briefed and trained as required. They must be equipped with copies of the materials that will be used and understand how to use such materials before the program begins. Finally, if plans call for home visits, workshops, focus groups, and other sessions with the target audience as well as with local administrators, professionals, or agencies, such activities must be organized at this time.

MOBILIZING THE COMMUNITY

Social mobilization can be a tremendous help in launching a program and is

important to sustaining it. Many community resources such as schools, agricultural cooperatives, mothers' clubs, government agencies, or even local organizations for the blind can participate in kicking off a program.

In West Sumatra, for example, the head of the district formally inaugurated the program and asked everyone to help, as did the first lady and the ministers in a Bangladesh program. An entire community was mobilized in Caruaru, Brazil, when local businesses and merchants joined with the mayor and other local political leaders to launch a vitamin A intervention program. In addition, newspapers and radio and television stations agreed to carry advertisements for the program, without charge, and local merchants offered the children such incentives as T-shirts and other inexpensive but attractive awards. A clown visited the schools to encourage children to attend vitamin A capsule distribution sessions. Teachers were asked to tell their students about the program. Storekeepers placed posters in their windows, and banners were hung in the streets. In short, project organizers saw to it that every level of the community was involved.

Clearly, it is important to launch a program by mobilizing all available resources. Sometimes the resources are more extensive than they first appear. In making plans to launch a program, program planners must develop a list of those in the public and private sectors who can augment the small army of program people.

KEEPING THE PROGRAM GOING

The launch of a program is always exciting and by itself creates a momentum that continues for some time. However, one of the most difficult challenges facing



A clown encourages children to attend vitamin A capsule distribution sessions.

any intervention program is sustaining enthusiasm for the program over the long term. Indeed, the ability to sustain interest—to keep momentum going—is sometimes the difference between program success and failure.

Besides the already mentioned social mobilization, strategies for sustaining momentum might include, for example, incentive awards such as T-shirts and small radios for the best vegetable garden or for villages that distribute the greatest number of vitamin A capsules. Modest prizes can be awarded to children who evidence better-than-expected health status. Occasional educational seminars might be organized to report progress to the project sponsor. After a certain amount of time, however, it is important to change the words, tune, background, or placement of messages to renew

interest in the project.

Any changes can be publicized in local newspapers or on radio and television. In fact, program planners should continue talking with reporters and editors—many will be pleased to help further program goals and activities. In addition, positive feedback to community health workers and supporters through newsletters, meetings, and special events that demonstrate program managers' appreciation for a "job well done" can help sustain enthusiasm.

The need for sustaining a program cannot be overemphasized. Each day young women become mothers for the first time and thus join the ranks of the target audience mothers. These "new mothers" will need to receive a full cycle of the messages that are the core of the vitamin A intervention.

MONITORING THE PROGRAM



O V E R V I E W

- During program implementation, it is essential to monitor program activities to ensure that the program is meeting its goals.
- Monitoring permits midcourse changes in communications activities that keep the program on track.
- Monitoring can be organized around the program's prelaunch and postlaunch activities by listing all the program elements that need to be tracked.
- Project staff and others involved in the project can take responsibility for reporting on project progress; in some cases, however, it may be necessary to undertake special information collection efforts.
- The frequency of monitoring depends on the nature of program activities.

During implementation of the communications program, it is important to *monitor* program activities—that is, to check continuously on what is happening to ensure that everything and everyone are working as planned. Monitoring permits midcourse changes in communications activities that can enhance program effectiveness.

While this resource book focuses primarily on the communications elements of vitamin A intervention programs, *all* program elements (e.g., the efficiency of capsule distribution, provision of agricultural inputs for home gardens, and frequency of nutrition education sessions conducted by field workers) should be monitored. Because monitoring involves additional work for the program staff and advisers, it is useful to combine the monitoring function with

other project elements to minimize paperwork and meetings.

LISTING THE VARIABLES

In developing a communications monitoring system, program managers should first list all the elements or *variables*—e.g., the individual program components, activities, workers, and media—that need to be assessed. These variables can be organized around the program's prelaunch and postlaunch phases.

To determine the prelaunch variables, the prelaunch process should be divided into as many separate activities as possible and might, for example, include information gathering, developing the communications strategy, briefing the creative advisers, designing materials, printing or recording messages, and pretesting messages.



Posters at a local health station promote the project and its message.

The postlaunch monitoring variables should likewise be divided into separate elements. For example, radio messages could be categorized as radio spots and radio dramas as appropriate and the following questions posed:

- Are the radio messages being broadcast?
- Are the messages being broadcast at the scheduled times?
- Is the target audience listening to the messages?
- How are audience members reacting to the messages?
- If the audience is not reacting as intended, how should the existing strategy be revised?

In the case of person-to-person communications carried out by community health workers, monitoring may be structured around the following questions:

- Are community health workers equipped with the necessary counseling materials?

- Are the materials in good condition and in adequate supply?
- Are the materials used correctly and as often as planned?
- Is the target audience attending the counseling sessions?
- How is the audience reacting to the messages?
- How are community health workers responding to the reactions?
- Are health workers' findings transmitted to the program managers?

When monitoring a posters program, program managers might find it useful to ask the following questions:

- Have posters been posted at the designated places?
- Have they been put up in the agreed-upon fashion—protected from rain, easy to see?
- Are the posters in good condition? Is anyone checking to see that they remain intact? Is anyone replacing damaged posters?



- Is the target audience noticing the posters?
- How is the audience reacting to the posters?

REPORTING THE VARIABLES

The project staff or others involved in the project can report on most monitoring variables. For example, health workers can be asked to report at regular intervals on the number of counseling sessions they have conducted, the number of people they have counseled, and the responses of these people.

However, some of the activities may need to be monitored by people other than those who have direct project responsibility, particularly if the monitoring data are not reliable or timely. For example, radio stations may not report frequently enough on the number of spots or programs they have broadcast. In this case, it might be advisable either to hire somebody specifically to listen to and monitor the radio or to require each community health worker to monitor broadcasts on a given day.

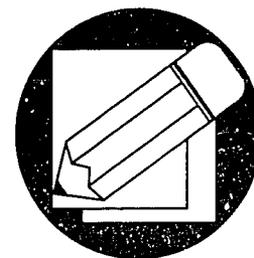
For some of the monitoring data, it may be necessary to undertake special

data collection efforts. For instance, the only way to assess whether mothers are listening to the radio or noticing the posters is to *survey* a sample of the target audience. Assuming availability, a survey specialist might be retained to design the questionnaires and analyze results—if project resources permit.

The frequency of monitoring depends on the nature of the program activities. For instance, if community health workers are not counseling effectively, some immediate investigation and action would be warranted. By contrast, information on whether mothers are reacting positively to messages may be collected only once every three months because it may take that much time for messages to reach and motivate the target group.

Frequency of monitoring also depends on the ease and cost of collecting the needed information within a given time frame. For instance, even though it might be desirable to monitor mothers every month, it may not be possible to do so owing to resource constraints and other logistical limitations.

EVALUATING THE PROGRAM



O V E R V I E W

- A program evaluation assesses the extent of behavior change in the target population as a consequence of the communications strategy.
- An evaluation should try to find out how and why a change occurred (or did not occur) in the target population's beliefs and practices.
- It is often useful to organize an evaluation into a series of before, during, and after studies.
- An evaluation should assess various program activities and elements, for example, message content, nature of the creative materials, and the appropriateness of the media used to convey the messages.
- An evaluation is a valuable tool that can provide insight into the design and implementation of future communications strategies.

Evaluating a communications program is important for several reasons. An evaluation permits program managers to determine whether a program is yielding the expected outcomes. It also indicates areas in need of improvement, suggests whether the current program should be expanded, and lays the groundwork for future programs. If the program has external funding, the program sponsor typically requires an evaluation.

Ideally, the lessons learned from the evaluation should benefit the present program, but, even if that program is of short duration (perhaps one to two years) and therefore does not lend itself to reorientation, the evaluation results should inform and direct future projects. The evaluation should not only measure

program effectiveness but should provide diagnostic information or reasons for program success or failure.

CONDUCTING BEFORE, DURING, AND AFTER STUDIES

Because evaluations can be extremely complicated, evaluation experts might be needed to guide the assessment of program progress. Generally, all evaluations try to measure change and call for conducting *baseline information collection* before the program begins, follow-up *midterm information collection* at specific intervals, and an *impact assessment*, which is the final evaluation at project conclusion.

The time elapsed between the baseline and midterm information-gathering efforts should be sufficiently



It is entirely adequate for communications evaluation studies to measure a change in behavior as a proxy for improved nutritional status.

long to permit the target population's adoption of any behavior changes. Usually a period of less than one year is inadequate unless program efforts are highly intensive. Midterm information collection helps determine the pace of change and may indicate the need for adjustments that would permit the achievement of project goals.

A question that arises in conducting before-and-after information gathering is whether behavior change is a result of program activities. It is entirely possible that some change may not be directly related to project interventions and instead came about in the normal course of time or as a result of other efforts.

To evaluate the reason for behavior changes, many programs use a control or comparison group—a population that, though similar to the target audience, is not the beneficiary of program communications efforts. The before-and-after information-gathering activities are also conducted with the comparison group so that the differences observed in both the project and comparison groups can indicate the changes achieved as a result of the communications efforts.

The information collection activities conducted before, during, and after the communications project take the form of quantitative surveys. Based on the nature of the communications strategy, a structured questionnaire may need to be developed, a sample selected, interviews conducted, and the results analyzed.

ASSESSING PROGRAM GOALS

A final evaluation should assess the extent to which the target population's behavior has been modified as a consequence of the communications strategy. For instance, if the program goal was to increase the number of mothers who add

green leafy vegetables to their five-month-old children's porridge, the evaluation should measure the number of mothers who follow this practice after exposure to the program's message.

Every vitamin A intervention program is aimed at bringing about physiological changes such as decreased xerophthalmia levels or increased blood serum levels of vitamin A. However, communications programs can change behavior only. It is accepted that a certain amount of behavior change will naturally lead to the necessary physiological changes. Therefore, it is entirely adequate for communications evaluation studies to measure a change in behavior as a proxy for improved nutritional status. In other words, if mothers are feeding enough vitamin A-rich foods or more children are regularly consuming vitamin A capsules, it is safe to assume that the communications efforts are helping to improve the health status of the target population.

To provide guidelines for future communications programs, an evaluation should try to find out how and why a change occurred in the target population's knowledge, attitudes, and practices. For example, if mothers have grown used to feeding green leafy vegetables to their young children, it is essential to know what parts of the message convinced them to change their behavior. Conversely, if mothers' attitudes have not changed, program managers must determine whether mothers understood the message as intended or whether they encountered difficulties in finding, growing, or cooking the vegetables.

If mothers clearly demonstrate greater knowledge about vitamin A-rich foods, it is essential to determine which aspect of the program proved most effective. And if mothers do not seem to



Radio messages attract an attentive crowd.

know much more about vitamin A than they did before initiation of the program, it is important to learn why the target population found it difficult to understand or accept the new information.

Another set of variables that can explain the success or failure of a program relates to the media used to convey the messages. Did the members of the target audience listen to the radio messages at all? How often? Did they see the posters? Which media played the greatest role in persuading target audience members to change their habits?

Another issue concerns the degree of behavior change that is considered successful change. If the program objective was to increase capsule use by 50 percent, obviously a change of 25 percent indicates a failure. However, it is important to be realistic in setting objectives. Many programs "fail" because they set unattainably high goals. It is better to set modest objectives and achieve them than to set impossible ones and fail to attain them.

FINDING COMMUNICATIONS SPECIALISTS



O V E R V I E W

- Regardless of program resources, nearly all program managers are likely to find that considerable communications assistance is available from a range of in-country institutions and individuals.
- In addition, several international agencies and organizations can offer assistance in carrying out nutrition communications programs.

How can you find the specialists and professionals to help you carry out your communications program? The more financial resources available to a program, the greater is the level of assistance that can be secured. Nevertheless, even programs with limited resources are likely to find that considerable assistance is available.

In any given locale, advertising and market research firms might be available to assist in designing communications strategies and evaluating the results. Program managers should discuss their programs with such organizations, explain budgetary resources, and determine how such firms can assist in carrying out a communications program.

Local and regional universities can provide help with information-gathering activities and perhaps offer other types of expertise. It is important to consult with these institutions to find out how they can assist in furthering program efforts. It is even possible that your program can provide university faculty and students

with a hands-on training experience.

Newspapers, radio, and television can provide ways to convey messages to the target audience, often without charge. Program managers should visit the offices of these mass media outlets and talk to their staff about program plans and communications needs. Representatives of the mass media are often eager to lend their expertise and assistance to programs aimed at enhancing a community's health status.

Local businesspersons as well as local political and other community leaders might be interested in sponsoring program activities. Religious groups and civic organizations, once involved in a program, can become a forceful source of support and assistance. In addition, it is always advisable to check with managers of other nutrition programs underway in your region, including those from the national as well as local government, to find out what they have accomplished and what advice they can offer.

Apart from local and regional



Local health volunteers field test flashboards developed with the assistance of a nongovernmental organization.

specialists and professionals, several outside organizations provide assistance in carrying out nutrition communications programs. These include the market

research and communications organizations, international agencies, and various in-country agencies as noted in Chapter 3.

Learning from Field Experience

PART

2

A Selection of Creative Materials

This section describes a wide variety of creative materials used in the field in support of various nutrition communications programs for vitamin A. The variety underscores the several options available to vitamin A program managers in the development of creative materials. Local conditions, project resources, time, and the characteristics of the target audience all influence the type of creative materials developed in support of a vitamin A intervention program. The several examples provided here are intended to stir the imagination and

creative genius of nutritionists and communications specialists. The examples are organized into the following categories:

- Print media
- Presentations and group interactions
- Slide programs
- Songs
- Broadcast media (television, radio)
- Other

Illustrations of printed materials as well as scripts for audio and video productions are included.

PRINT MEDIA

Description

Posters, 13" X 8-3/8" and 15" X 14-1/2"

Country

Indonesia

Language(s)

Bahasa Indonesia

Objective/Message

The posters show a healthy child eating rice with green vegetables. The phrases promote the daily consumption of green vegetables to make children healthy, happy, and strong.

Strength

These attractive posters clearly suggest a cause-and-effect relationship: a child who eats green vegetables will be healthy like the child pictured in the poster. A well-known singer, pictured in the posters, endorses the message.

Implementor(s)

Departemen Kesehatan, Ri, Central Java; Ministry of Health, Helen Keller International, Jakarta



Description

Poster, 17-1/2" X 23"

Country

Malawi

Language(s)

English and Chichewa, one language per poster

Objective/Message

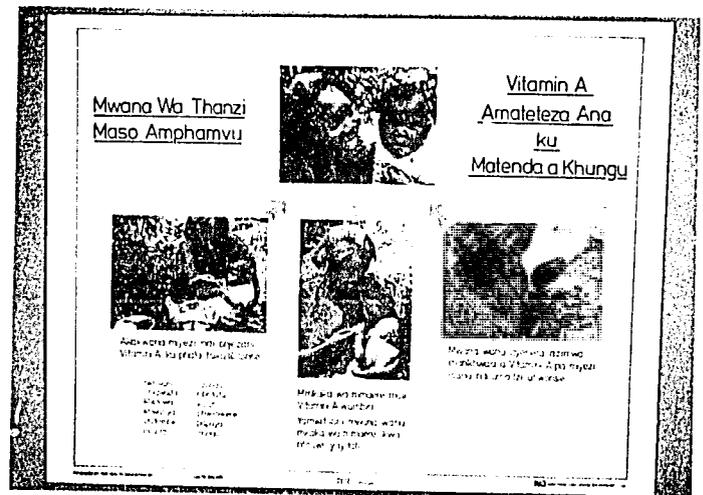
To prevent child blindness and ensure child health and healthy eyes, the poster recommends three actions: add vitamin A-rich foods to porridge at four months, breastfeed the baby as long as possible, and take the baby for vitamin A capsules every six months.

Strength

This simple poster implies that following three easy steps will yield an important benefit—a healthy child. The poster is effective without color photographs or costly materials. Helen Keller International reported that this poster took three weeks to produce.

Implementor(s)

Health Education Section, Ministry of Health, Malawi; Helen Keller International, New York



PRINT MEDIA

Description

Poster, 15" X 19-1/2"

Country

Nepal

Language(s)

Nepali

Objective/Message

The poster presents a comparison between a boy who eats only rice and looks very unhealthy and a boy who eats vitamin A-rich foods and appears very healthy (Rice Peter and Spinach Peter).

Strength

The contrast in images depicted on the locally produced poster provides a clear message regarding the beneficial effects of a vitamin A-rich diet.

Implementor(s)

SEVA Foundation. Nepal Netra Jyoti Sangh, Kathmandu



Description

Poster, 14" X 21"

Country

Bangladesh

Language(s)

Bangla

Objective/Message

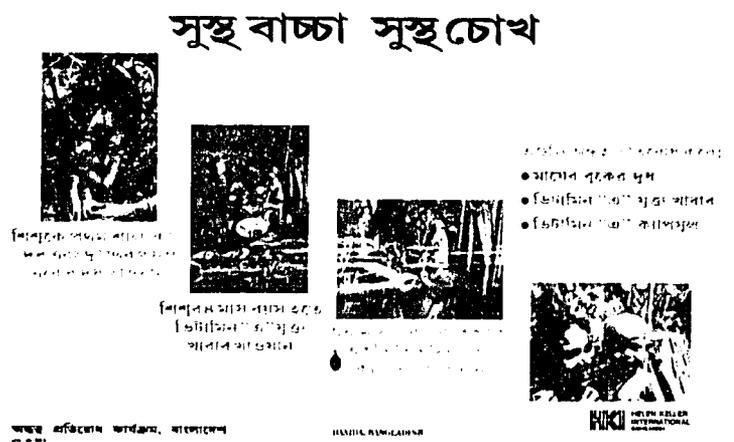
The poster promotes three ways of providing vitamin A to keep a child healthy and free of disease: breastfeeding, including colostrum; consumption of vitamin A-rich foods beginning at four months of age; and administration of vitamin A capsules every six months.

Strength

This simple poster suggests that there is an important benefit to be gained—a healthy child—by following three easy steps. It is clear and easy to understand.

Implementor(s)

Institute of Public Health and Nutrition, Ministry of Health; UNICEF; Helen Keller International; Danish International Development Agency (DANIDA), Dhaka



PRINT MEDIA

■ Description

Poster depicting 20 photographs of carotene-rich foods, 19" X 28"

■ Country

Viet Nam

■ Language(s)

Vietnamese

■ Objective/Message

The poster is one of several mass media and education items. It depicts common carotene-rich vegetables. A similar poster shows local fruits.

■ Strength

The poster promotes primarily common, locally known carotene-rich foods as part of the general diet. It is used during farmers' training sessions and for general promotion of the product, e.g., it is posted in offices, maternal and child health clinics, and village meeting halls. The wide variety of vegetables available is the basis for a diversified and healthy diet promoted by the project. The vegetables are easily identified because they are presented in color photographs along with their names. The poster is accompanied by individual multicolored leaflets for each fruit and vegetable. The leaflets provide information on the production and use of these foods.

■ Implementor(s)

National Institute of Nutrition, Ministry of Health; National Institute of Fruit and Vegetable Production, Ministry of Agriculture; National Farmers Association (VACVINA), Hanoi; supported by FAO and funded by Government of Australia



■ Description

Two training manuals, 12 pages and 78 pages, 5-1/2" X 8-1/4"

■ Country

India

■ Language(s)

Tamil

■ Objective/Message

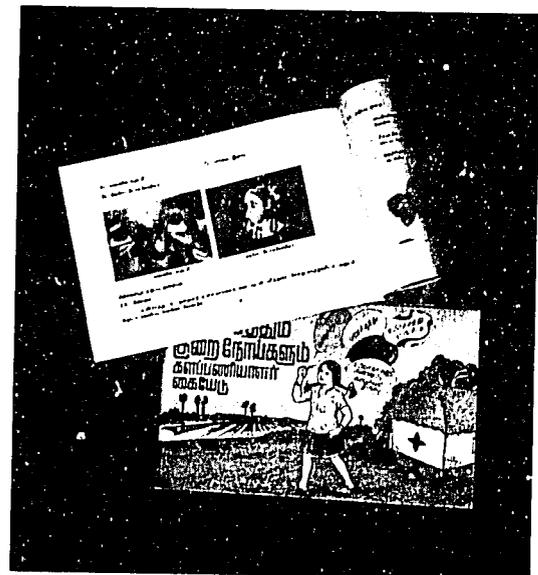
The short manual is limited to vitamin A, while the longer manual focuses on general nutrition with sections on vitamin A. The vitamin A material covers vitamin A's importance, sources, and nutritional requirements as well as the effects of vitamin A deficiency and its prevention, how to administer vitamin A solution, and how to conduct nutrition education.

■ Strength

This comprehensive information serves both as a teaching guide and a reference for health workers on the job.

■ Implementor(s)

Administered and operated by Government of Tamilnadu; funded by Government of Denmark through the Danish International Development Agency (DANIDA), Madras



PRINT MEDIA

■ Description

Training manual, 40 pages, and manual for health workers, 33 pages, each 11" X 8-1/2"

■ Country

Bangladesh

■ Language(s)

Bangla

■ Objective/Message

The objective of the manuals is to prevent child blindness caused by vitamin A deficiency. The manuals were designed to be used in conjunction with such educational materials as a flipchart and flashcards and with vitamin A recognition cards.

■ Strength

The manuals not only provide health workers with information but show them how to use the information in conjunction with educational materials to teach mothers about vitamin A. The training manual includes teaching notes in addition to all the same information contained in the health worker manual.

■ Implementor(s)

Institute of Public Health and Nutrition, Ministry of Health; UNICEF; Helen Keller International, Dhaka



■ Description

Training manual, 24 pages, 8-1/2" X 8-1/2"

■ Country

Nepal

■ Language(s)

Nepali and English versions

■ Objective/Message

This illustrated training manual for village eye care health workers is simple and practical and based on past experience with volunteer workers. It focuses on general eye care with special attention to detection of cataracts, prevention of eye infections through hygiene, and prevention of vitamin A-deficiency blindness in children by promoting the growth and intake of the correct foods.

■ Strength

This manual is well designed for low-literacy workers and has large, clear illustrations and smaller, succinct text.

■ Implementor(s)

SEVA Foundation, Nepal Netra Jyoti Sangh, Kathmandu



PRINT MEDIA

■ Description

Brochure, 6 pages, 6-3/4" X 9-1/2", and slide-strip viewer with 8 frames

■ Country

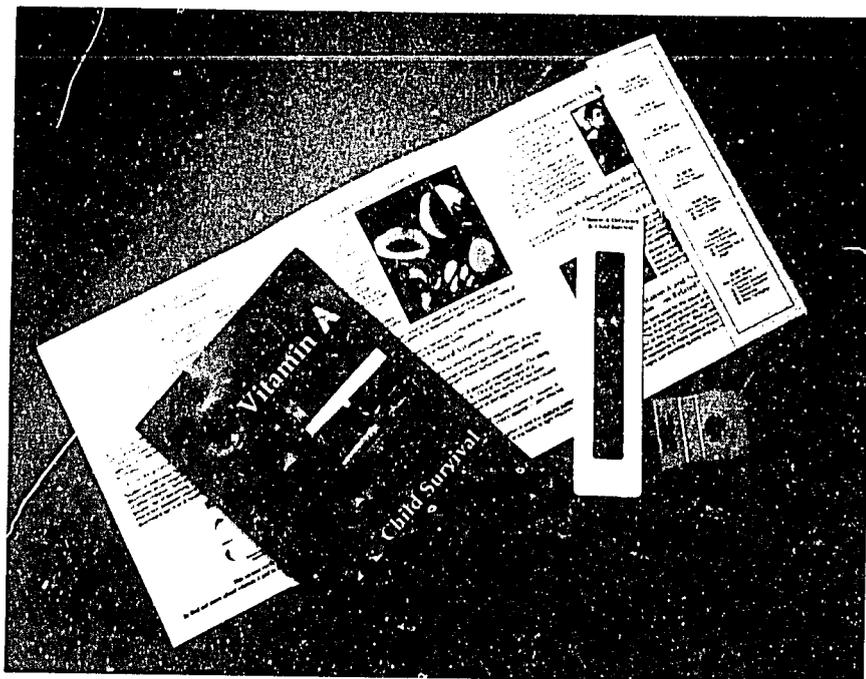
Developed in the United States for worldwide use

■ Language(s)

English and French

■ Objective/Message

The brochure describes the impact of vitamin A deficiency on child survival, identifies vitamin A-rich foods, reviews vitamin A functions in humans and causes of deficiency, identifies populations most at risk of deficiency, and explores the various short- and long-term interventions to prevent vitamin A deficiency. The publication is a promotional piece designed for decision makers such as nonhealth and government officials; health programmers working in child survival projects in the field; and health educators providing training and orientation sessions.



■ Strength

Pretesting the brochure text and layout helped implementors design a more useful brochure. Bold headlines lead readers through the simple, concise text. The slide viewer depicts childhood illnesses associated with vitamin A deficiency and allows users to view the photographs at their own pace. The presentation of general information and appealing use of color and photography make the brochure a quick reference piece.

■ Implementor(s)

Vitamin A Technical Assistance Program (VITAP), Helen Keller International, New York; funded by U.S. Agency for International Development, Washington, D.C.

PRINT MEDIA

■ Description

Brochure, 4 pages, 5-3/4" X 8-1/4"

■ Country

Thailand

■ Language(s)

Thai

■ Objective/Message

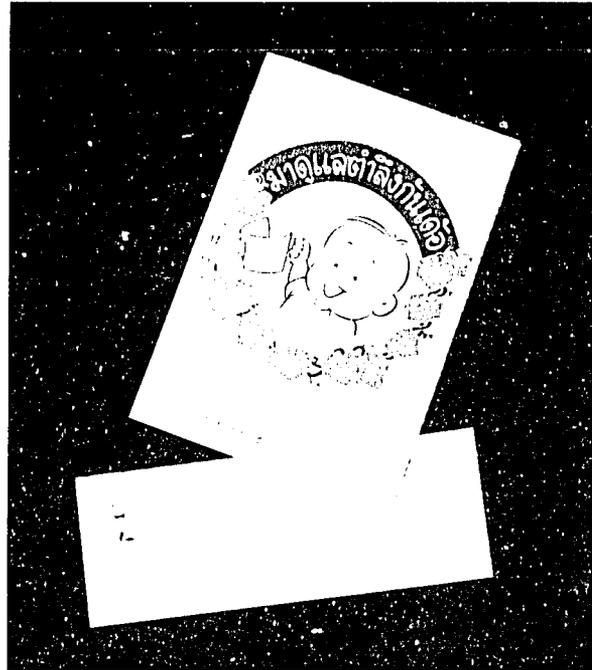
Using cartoons, the brochure gives school children information on how to care for the vitamin A-rich ivy gourd plant, in particular how to eliminate pests by using a traditional herbal pesticide. A project slogan aimed at motivating desired behavior, "Let's Take Care of the Ivy Gourd," appears prominently on the brochure's first page. Students are also encouraged to write a slogan, short story, or message about the ivy gourd on a detachable portion of the brochure and send it to the project.

■ Strength

This brochure builds on earlier program success as it teaches children by using drama and the popular character "Super Mr. Ivy Gourd." Because the enthusiasm of children can be a convincing and effective way to reach adults, project organizers sought the assistance of eager youngsters to provide supplementary information to community members. In this project, school children were excellent "junior nutrition educators" and highly successful in propagating the ivy gourd. Winners were picked at random from those students who returned the detachable portion of the brochure. Each winner received a project T-shirt.

■ Implementor(s)

Social Marketing of Vitamin A Rich Foods (SM/VAF), Institute of Nutrition, Mahidol University, Nakhon Pathom



PRINT MEDIA

■ Description

Illustrated booklet, 18 pages, 8-1/4" X 8-1/4"

■ Country

Indonesia

■ Language(s)

Bahasa Indonesia

■ Objective/Message

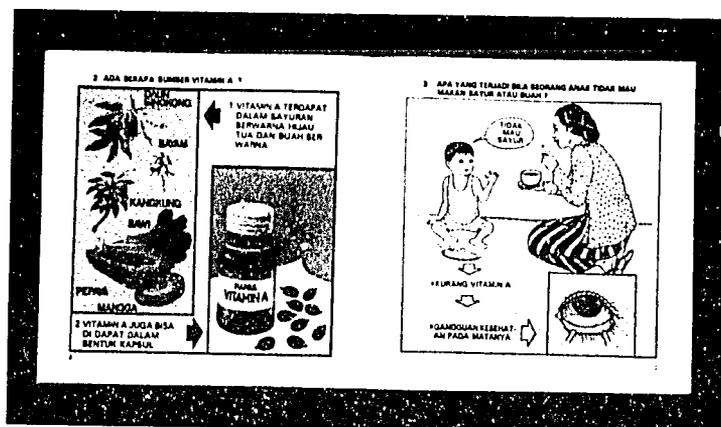
The booklet helps health workers teach mothers about vitamin A, where to find it, the effects of vitamin A deficiency, vitamin A supplements, and health records.

■ Strength

This is a useful visual aid to help focus the attention of mothers during education sessions. It helps mothers visualize and later recognize items such as vitamin A supplements and health records.

■ Implementor(s)

Rehidrasi Oral and Vitamin A Project (ROVITA), Central Java, Indonesia: Department of Health of Central Java Province, Diponegoro University, Helen Keller International, Communication for Child Survival Project (HEALTHCOM) of the Academy for Educational Development



■ Description

Booklet with black and white drawings and 24 color pictures of common vitamin A-rich foods of Nepal, 72 pages, 7-1/3" X 10-1/5"

■ Country

Nepal

■ Language(s)

Nepali

■ Objective/Message

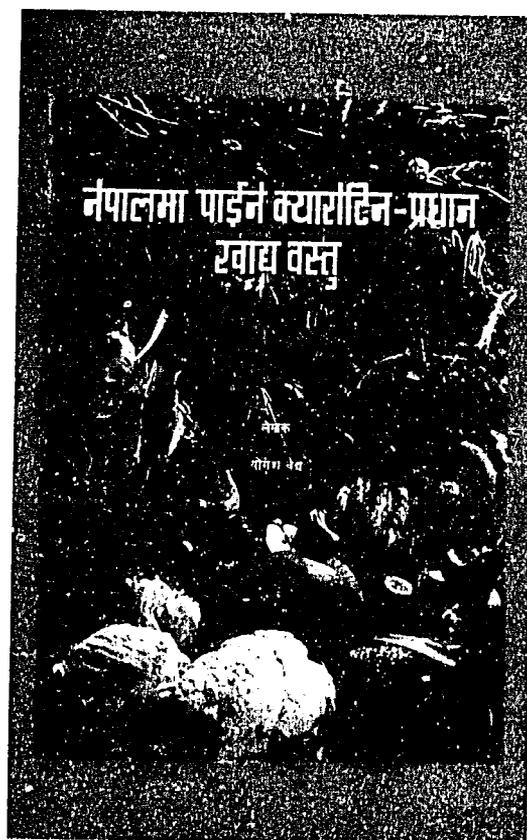
The booklet's introduction describes the role of vitamin A for sound nutrition and health. The booklet discusses vegetables and fruits of Nepal and how to produce them at home. It is addressed primarily to agricultural extension agents but can also be used by community development workers responsible for home gardening and nutrition improvement programs.

■ Strength

The booklet is attractively designed with clear and appealing line drawings that illustrate how to prepare a garden. Commonly, agriculturalists do not learn details of home gardening and focus instead on the production of staple foods. This book provides agriculturalists with agricultural and nutrition information for their essential role in assisting home growers in producing carotene-rich fruits and vegetables common to the Nepalese diet.

■ Implementor(s)

Nutrition Research and Development Division, Central Food Research Laboratory, Ministry of Agriculture, Kathmandu



PRINT MEDIA

■ Description

Illustrated booklet, 36 pages, 8-1/2" X 11"

■ Country

Developed in the United States for worldwide use

■ Language(s)

English, French, Spanish

■ Objective/Message

Vital Nutrients is a training and reference booklet for policy makers and nonclinical readers. It provides an overview of the effects of vitamin A, iron, and iodine deficiencies; current knowledge of how and why these micronutrient deficiencies occur; who is particularly at risk; low-cost interventions that work; and how professionals engaged in a broad range of programs can play key roles in preventing and controlling micronutrient deficiencies.

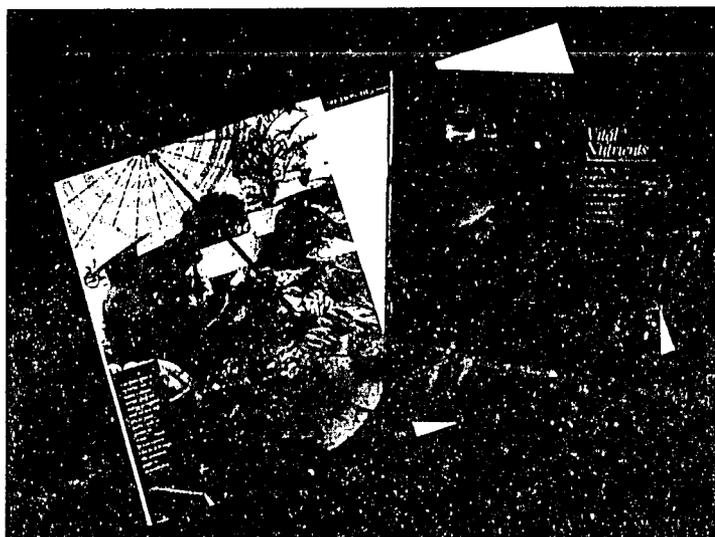
The booklet notes the valuable contributions of the U.S. Agency for International Development, UNICEF, WHO, and other donors in promoting micronutrient nutrition and argues for continued support and commitment from policy makers and donors.

■ Strength

The booklet uses graphics to highlight research findings and to present information quickly and clearly to busy readers. Practical examples of interventions and information about identification, treatment, and prevention of micronutrient malnutrition add to the booklet's value as a training document. Region-specific photographs in each translation enhance the text.

■ Implementor(s)

Vitamin A Field Support Project (VITAL), International Science and Technology Institute, Arlington, Virginia; funded by U.S. Agency for International Development, Washington, D.C.



PRINT MEDIA

■ Description

Papaya and drumstick booklets, about 20 pages, in shape of subject; papaya, 6-3/4" X 4" (irregular); drumstick, 3" X 9-1/2"

■ Country

India, Tamilnadu State

■ Language(s)

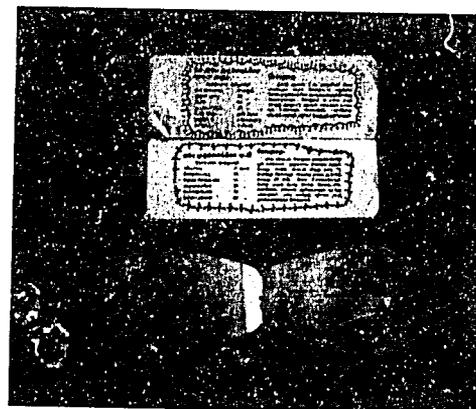
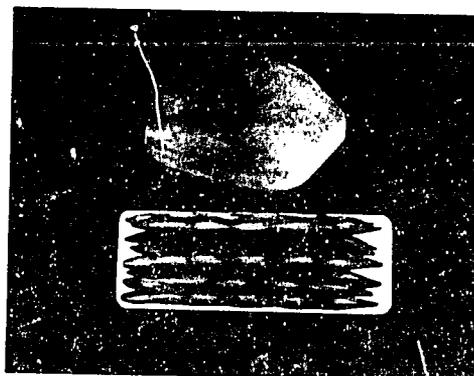
Tamil

■ Objective/Message

These booklets focus on the "best" green vegetable and the "best" fruit—drumstick leaves and the papaya. They discuss the benefits of each food and provide relevant nutrition information as well as instructions on how to plant and grow the food. Usage information and five or six recipes are also included. The booklets conclude with a page that explains why some opinions about the drumstick and the papaya are incorrect.

■ Strength

This is a simple, direct, and practical way to communicate the importance of vitamin A-rich foods. It is obvious from the cover what the subject is. Inside, the focus is on how to grow and prepare the foods. The recipes are useful—most messages just tell mothers to use a food without providing interesting ways to do so. In addition, the attempt to counter existing resistance points deals directly with key barriers to consumption.



■ Implementor(s)

Tamilnadu Integrated Nutrition Project, Madras

■ Description

Reports of results of specific study topics, 20–23 pages, 10-1/2" X 8"

■ Country

Bangladesh

■ Language(s)

English

■ Objective/Message

These four reports were designed to present to policy makers the results of different elements of a major study. Released four to six months apart, the reports contain tables and graphics to demonstrate conclusions. They also contain glossaries, references, and recommendations.

■ Strength

Reports of this type can generate ongoing support for a project among those in positions of influence. They also reinforce the efforts of senior program staff. The most important element of these reports is the linkage of results to recommendations for future actions.

■ Implementor(s)

Institute of Public Health and Nutrition, Ministry of Public Health;
Helen Keller International, Dhaka



PRINT MEDIA

■ Description

Newsletters, 12 pages, 8-1/2" X 11"

■ Country

Nepal

■ Language(s)

Nepali

■ Objective/Message

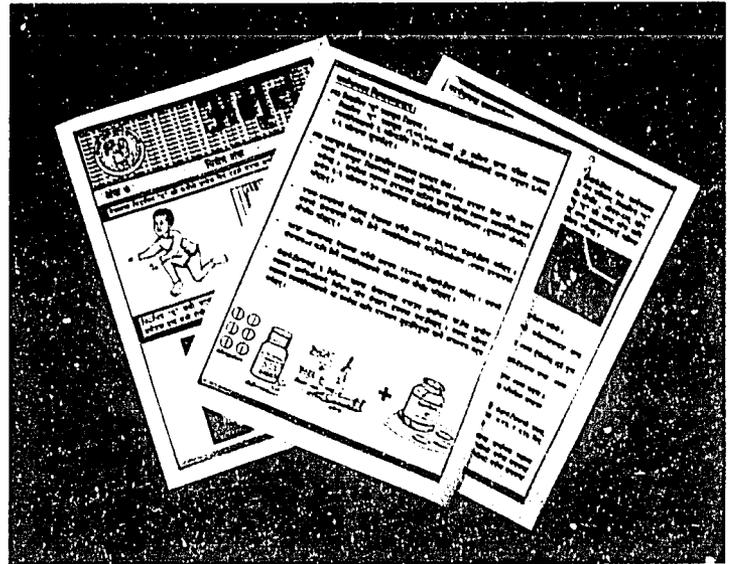
The series of monthly newsletters informs mothers about healthful child care and feeding practices through the use of stories, cartoons, drawings, photographs, and short articles. It also conveys news of the Vitamin A Child Survival Project and serves as a link between community health volunteers and other women in isolated communities.

■ Strength

Project organizers took advantage of the limited amount of reading material available to newly literate women. Community health volunteers promote the newsletters and distribute them to project and literacy class participants. Comments from readers after early issues inspired modification of the format to include less text, simpler text, and more pictures. Increasing volumes of correspondence from women readers led to an expanded section for readers' letters in later issues. While the newsletters were first envisioned only for groups receiving a nutrition education intervention, project organizers adopted a modular format that enabled them to produce a version of each newsletter with information specific to each project intervention group.

■ Implementor(s)

Vitamin A Child Survival Project, Nepal Netra Jyoti Sangh, Kathmandu



PRINT MEDIA

Description

Flyers, black printing on gray newsprint, 6-1/4" X 8-1/2"
Posters, color on white, 11-7/8" X 15-3/4"

Country

Brazil, Pernambuco State

Language(s)

Portuguese

Objective/Message

Take-away flyers, along with banners and TV/radio spots, announced the date for vitamin A capsule distribution for children under five years of age at health posts and vaccination centers. Posters, while serving primarily as publicity, also contained an educational message—"one dose of vitamin A protects your child against blindness"—surrounded by a large eye.

Strength

This is a good multimedia approach to promoting capsule distribution.

Implementor(s)

Municipality and Secretary of Health of Caruaru, in collaboration with Departamento de Nutrição, Universidade Federal de Pernambuco, Pernambuco State

UMA DOSE DE VITAMINA "A" PROTEGE SEU FILHO CONTRA A CEGUEIRA.

Dia 22 de fevereiro/86

Projeto Comunitario
Professor Nelson Chaves



Projeto da Secretaria de Saúde de Caruaru
Instituto de Nutrição da UFPE
Com a ajuda da Secretaria de Saúde do Estado

2ª dose

Description

Xerophthalmia recognition card, plasticized cardboard, folded, 10-1/2" X 6"

Country

Asian and African region-specific versions

Language(s)

Asian: English

African: English, French, Swahili, Chichewa, Portuguese

Objective/Message

This card provides comprehensive information for health workers for recognizing, treating, and preventing vitamin A deficiency.

Strength

The information is presented concisely and completely with clear attention-getting photographs that emphasize the key elements needed by health workers.

Implementor(s)

International Center for Epidemiologic and Preventive Ophthalmology, Johns Hopkins School of Hygiene and Public Health, Baltimore, Maryland; World Health Organization, Geneva, Switzerland; Helen Keller International, New York. Funding from Office of Nutrition, U.S. Agency for International Development, Washington, D.C.; F. Hoffmann-La Roche, Ltd Task Force SIGHT AND LIFE, Basel, Switzerland; and, for the Chichewa version, IBM Europe, Paris, France



PRINT MEDIA

Description

King Parrot comic book, 22 pages, 8-1/2" X 5-1/2"

Country

India, Tamilnadu State

Language(s)

Tamil

Objective/Message

This comic book tells the story of the parrot who, because of his consumption of vitamin A-rich foods, has very sharp vision and so is given the position of sentry in the forest. Because the fox wants the parrot's position, the fox tries to weaken the parrot by convincing him that, with his new status, he should be eating only sweets. Consequently, the parrot loses strength and night vision. The wise owl realizes what the fox is trying to do and explains to the parrot that humans—who happen to be smart—not only eat food rich in vitamin A but also take vitamin A supplements. He describes vitamin A-related eye disease and lists sources of vitamin A-rich foods. The parrot returns to his former healthy diet and is better in several months.

Strength

This parable of the parrot is a highly creative way for older children to learn about vitamin A on their own in a fun-filled, nondidactic mode through colorfully illustrated comics.

Implementor(s)

Tamilnadu Integrated Nutrition Project, Madras; funded by World Bank



Description

Tin calendar tent and tin plate, 6" X 9"

Country

India, Tamilnadu State

Language(s)

English and Tamil (separately)

Objective/Message

As part of a multimedia campaign, the tin calendar and plate promote the consumption of vitamin A-rich foods to protect eyes and preserve sight.

Strength

The calendar and plate represent an interesting use of durable material to publicize the campaign message. The calendar has the additional benefit of serving as a practical item that can remind users (or visitors to an office) of the message on a daily basis.

Implementor(s)

Department of Public Health and Preventive Medicine, Health Education Bureau, Government of Tamilnadu, Madras



PRESENTATIONS & GROUP INTERACTIONS

■ Description

Multicolored flipchart with 19 pages (front displays color picture, back printed with instructions for trainers) on family gardening, 10" X 14"

■ Country

Viet Nam

■ Language(s)

Vietnamese

■ Objective/Message

The flipchart is part of a nutrition training package for the public, especially mothers. It presents the integrated systems (small animals: fish, chickens, pigs, ducks; and home gardening: fruits and vegetables) promoted in Viet Nam and provides detailed information on how to prepare nursery plant material, protect seedlings, prepare compost, make seed beds, replant, and water and weed the vegetables and fruits grown in beds, on trellises, or on trees.

■ Strength

The flipchart touches on all aspects of an integrated household-scale food production system. It reinforces integration of small animals and fish as part of vegetable and fruit production (e.g., chicken droppings for fish food, small animal manure for fertilizer, and unused vegetables for compost). The flipchart emphasizes self-reliance for food production.

■ Implementor(s)

National Institute of Nutrition, Ministry of Health; National Institute of Fruit and Vegetable Production, Ministry of Agriculture; National Farmers Association (VACVINA); Women's Union, Hanoi; supported by FAO and funded by Government of Australia

VAC - NGUỒN CUNG CẤP THỰC PHẨM CHO BỮA ĂN GIA ĐÌNH



PRESENTATIONS & GROUP INTERACTIONS

■ Description

Set of two flipcharts, 16 pages and 15 pages, 11-3/4" X 16-1/2"

■ Country

Burkina Faso and Mali

■ Language(s)

French

■ Objective/Message

L'Alimentation d'Ava et les Conséquences pour sa Santé et Celle de son Enfant and *Ava Découvre la Solution: Une Alimentation Riche et Variée* follow story lines and use images that depict life in Burkina Faso and Mali. Educational messages correspond with local customs and encourage feasible and appropriate changes in the practices of mothers of preschool-age children. The first flipchart focuses on a pregnant woman who suffers from night blindness; the second flipchart describes a child who develops the signs and symptoms of vitamin A deficiency and explains how to treat and prevent this problem in the future. The flipcharts were designed for use by community health educators and have been used by teachers in primary schools and literacy groups.

■ Strength

The script, questions for the audience, and appropriate responses are provided on the back of each flipchart page to facilitate use by the educator. Notes for the educator enhance the use of each illustration and each flipchart.

Local health workers participated in the development of the flipcharts. Pretesting among target audience members led to changes in text and illustrations that increased the usefulness of these teaching tools.

■ Implementor(s)

Ministry of Health, World Relief, Catholic Relief Services, Burkina Faso; Ministry of Health, Africare, CARE, World Vision, Mali; Vitamin A Technical Assistance Project (VITAP), Helen Keller International, New York; Nutrition Communication Project, Academy for Educational Development, Washington, D.C.; funded by Conrad N. Hilton Foundation, New York, and U.S. Agency for International Development, Washington, D.C.



PRESENTATIONS & GROUP INTERACTIONS

■ Description

Flipchart, plastic, 8 pages, 12" X 9-1/2"

■ Country

India

■ Language(s)

Tamil

■ Objective/Message

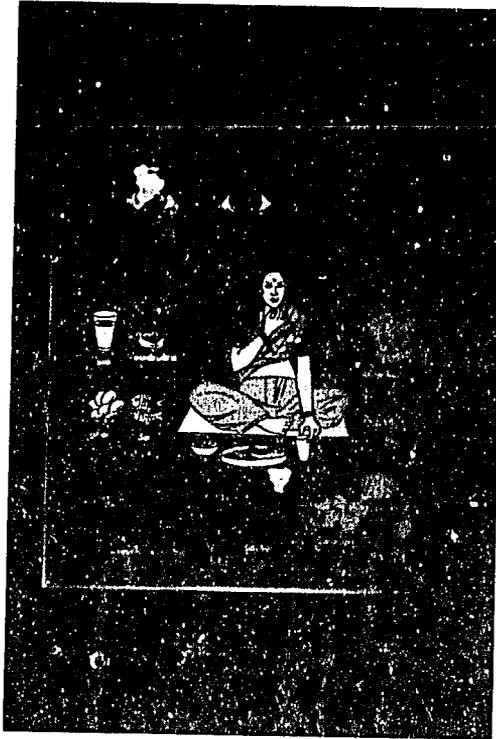
The objective of this flipchart is to teach mothers what they can do for their children's vision by making sure children receive enough vitamin A. Topics include vitamin A intake for mothers during pregnancy and breastfeeding, proper weaning, feeding toddlers, the importance of vitamin A-rich foods, vitamin A supplements, and symptoms of vitamin A deficiency.

■ Strength

This flipchart is made of durable materials and is colorful and easy to understand.

■ Implementor(s)

Administered and operated by Government of Tamilnadu; funded by Government of Denmark through Danish International Development Agency (DANIDA), Madras



■ Description

Flipchart, 17 pages, 24" X 36"

■ Country

Philippines

■ Language(s)

English

■ Objective/Message

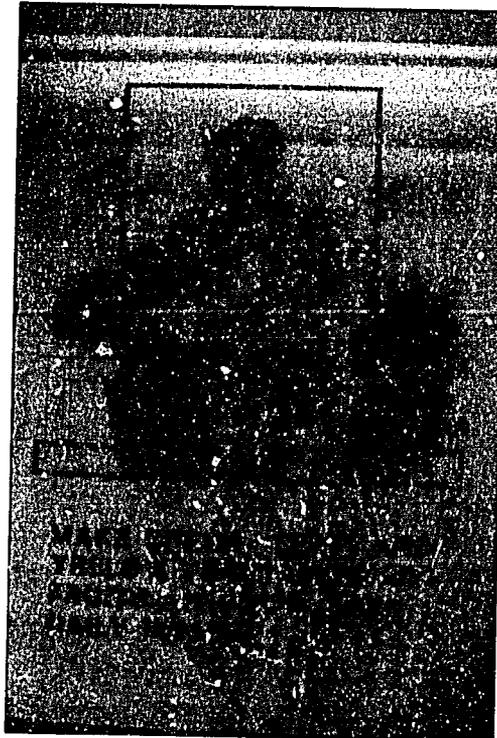
This is a general nutrition flipchart with some focus on vitamin A-rich foods and recommendations for establishing home vegetable gardens. The message is one among several messages on breastfeeding, preschool feeding, care for the sick child, family planning, food sanitation, malnutrition, and growth monitoring.

■ Strength

The flipchart provides interesting visual aids for mothers to focus on as health workers explain messages. The illustrations are clear and attractive and help the mothers remember the messages. Compared to lectures, the flipchart fosters greater interaction between mothers and health workers. Nutrition messages addressed to mothers and homemakers are vital in helping them and their families achieve sound health, nutrition, and well-being through the adoption of new practices.

■ Implementor(s)

Nutrition Center of the Philippines and other nongovernmental organizations, Department of Health and other government organizations, Metro Manila



PRESENTATIONS & GROUP INTERACTIONS

■ Description

Flipchart, 8 pages, 14" X 10"

■ Country

Bangladesh

■ Language(s)

Bangla

■ Objective/Message

This flipchart was targeted to a small audience of mothers for use by volunteer health workers, school teachers, and trainers. A larger, cloth version is available for larger audiences and is generally used by folk singers.

The flipchart covers general nutrition. The vitamin A section recommends different sources of vitamin A-rich food for children and promotes home gardening.

■ Strength

The vitamin A-related messages are clearly presented and well integrated into the overall nutrition program. The use of a flipchart allows the mother to interact with the presenter and provides high-impact visual support of oral messages.

■ Implementor(s)

Worldview International Foundation: Nutritional Blindness Prevention Program, Dhaka



■ Description

Counseling cards, set of 16, 6-1/2" X 8-3/8"

■ Country

India, Tamilnadu State

■ Language(s)

English (on back for health workers only)

■ Objective/Message

The illustrations on these colorful cards are used by health workers to tell a story to mothers. The story covers the importance of vision, the loss of sight, vitamin A deficiency and symptoms, and how to prevent eye disease. Specific prevention measures include sources of vitamin A, consumption of vitamin A-rich foods by pregnant and lactating women, weaning, feeding during bouts of diarrhea and administration of the sugar salt solution, and administration of vitamin A supplements. General eye disease treatment and prevention measures such as cleaning eyes and using adequate reading light are also covered.

■ Strength

These easy-to-understand, colorful cards are useful in reinforcing counselors' health messages. They help mothers focus on a visual image, which has more impact than words alone. The cards are also presented as a story so that viewers can link them together rather than remember individual, unrelated ideas.

■ Implementor(s)

Tamilnadu Integrated Nutrition Project, Madras; funded by World Bank



PRESENTATIONS & GROUP INTERACTIONS

■ Description

Counseling cards. 5 cards, 2 sizes, 3" X 3-1/2" and 6-3/4" X 7-1/2"

■ Country

Bangladesh

■ Language(s)

Bangla; English (on back only) for health workers

■ Objective/Message

The five cards tell the story of two boys: one is blind and the other can see because his diet included vitamin A-rich foods. Vitamin A-rich foods are profiled and proper weaning procedures and vitamin A capsules are discussed. The last card contains small pictures of the first four cards to review the entire session.

■ Strength

Counseling cards are an extremely interactive method. The instructions provided to health workers include questions to ask the mothers after each card is described. The review card is a good way to summarize; it reinforces pictorially the key elements. The messages are culturally sensitive and even address the cost of specific vitamin A-rich foods.

■ Implementor(s)

Worldview International Foundation, UNICEF, Dhaka



■ Description

Flannelgraph: printed, numbered pictures to be cut out and stuck on flannel board

■ Country

India, Tamilnadu State

■ Language(s)

None

■ Objective/Message

The flannelgraph presents a story of night blindness in a child—what it can lead to and how to prevent it through vitamin A intake. It covers supplements and dietary intake for pregnant and lactating women and for children being weaned.

■ Strength

The main benefit of the flannelgraph is that it encourages hands-on use by mothers to put the pictures in order and to explain the story that the pictures illustrate.

■ Implementor(s)

Tamilnadu Integrated Nutrition Project, Madras



PRESENTATIONS & GROUP INTERACTIONS

■ Description

Discussion guide and poster, 15" X 20"

■ Country

Nepal

■ Language(s)

Nepali

■ Objective/Message

The materials, designed for use in community settings such as health posts, schools, and adult literacy programs, promote and reinforce the intake of wild-growing foods from the forest as economical sources of vitamin A. The guide provides ideas for stimulating audience discussion on how to recognize the plants and why they are important for children

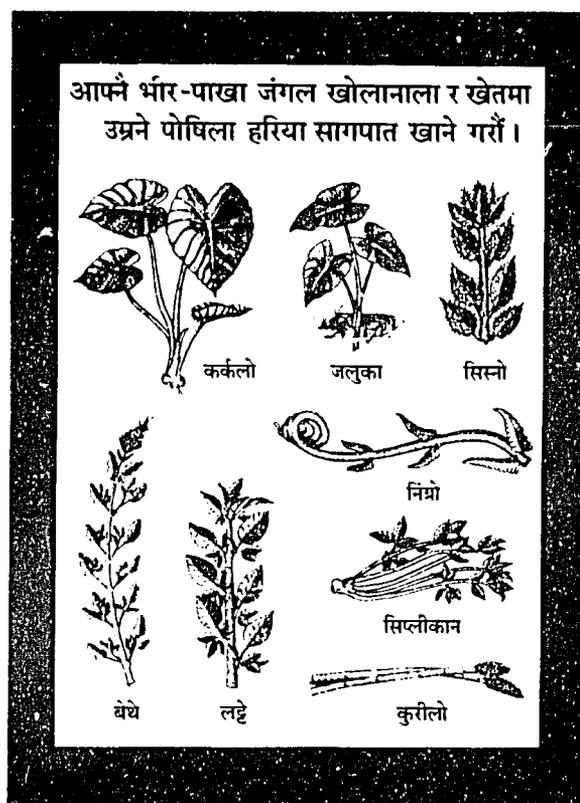
■ Strength

Straightforward drawings aid recognition of several vitamin-A rich wild plants suitable for human consumption and thereby eliminate reliance on reading skills. The discussion guide presents key points simply. It also notes that some individuals may be ashamed that they eat wild foods and advises the leader to stress the nutritional value of these foods to overcome this embarrassment.

Project managers reinforced the same information for the target audience through a flipchart and incorporated the message into materials developed for community health volunteers.

■ Implementor(s)

Vitamin A Child Survival Project, Nepal Netra Jyoti Sangh, Kathmandu



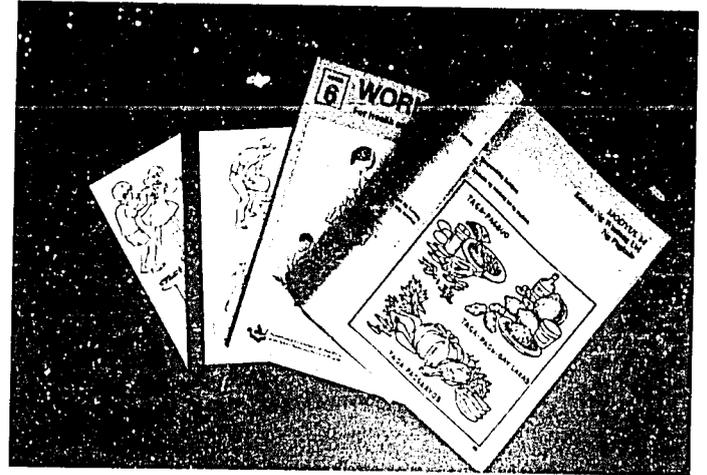
PRESENTATIONS & GROUP INTERACTIONS

■ Description

A teaching/learning package to facilitate the systematic integration of nutrition as a topic into the elementary school curriculum. The package consists of the teacher's guide/modules and workbooks for pupils and parents.

The teacher's guide/modules is a four-booklet teaching/learning package targeted to four elementary grade levels. Nutrition education is integrated into the curricula on science and health; home economics and livelihood; character building; and civics and culture. 64-168 pages. 8-1/2" X 11"

Workbooks for both pupils (grades 3 through 6) and parents consist of four illustrated books with nutrition and health messages and suggest school and home activities for the pupils and their parents. Full-color weight charts for boys and girls are included in inside covers. 68-152 pages. 8-1/2" X 11" (grades 3 and 4) and 7" X 10"



■ Country

Philippines

■ Language(s)

English and Filipino

■ Objective/Message

The objective of the workbooks is to integrate health and nutrition topics into classroom and home activities. Chapters focus on vitamin A, general malnutrition, and specific vitamin and mineral deficiencies. Breastfeeding, vaccinations, and growth charts are covered as part of the various nutrition topics highlighted during different academic years.

■ Strength

The workbooks present health and nutrition in a participatory, enjoyable, and practical way. The most interesting aspect is the specific attempt to involve parents in such children's activities as planting gardens.

■ Implementor(s)

Nutrition Center of the Philippines; Department of Education, Culture and Sports, Metro Manila

SLIDE PROGRAMS

■ Description

Slide shows, "Parrot Prince" and "Preparation of Green Leafy Vegetables," 42 slides each with taped commentary

■ Country

India, Hyderabad

■ Language(s)

Telugu

■ Objective/Message

The "Parrot Prince" is the story of a parrot who develops night blindness due to the lack of vitamin A-rich foods in his diet. The story describes how the parrot is cured by eating more of such foods

"Preparation of Green Leafy Vegetables" explains the right and wrong ways to prepare such vegetables. Its objective is to encourage mothers to maintain kitchen gardens and to include greens in meals regularly, particularly for infants and small children

■ Strength

Slide shows can be highly effective in communicating messages to people in group settings, especially in a story format such as the "Parrot Prince," which is targeted to groups of mothers and children

■ Implementor(s)

National Institute of Nutrition, Hyderabad



SLIDE PROGRAMS

■ Description

Slide-tape programs and accompanying booklets

■ Country

Mauritania, Assaba Region

■ Language(s)

Hassaniya, Wolof, Lulau, Soninke (booklets also in French)

■ Objective/Message

The slide-tape presentation "Information on Health Centers and Mobile Teams," which describes services in the area, dedicates 14 of 33 slides to vitamin A, particularly to pictures of individual vegetables and how to grow and prepare them. Vitamin A capsule distribution is also mentioned.

"Yia and Fanta Cook a Meal with Green and Yellow Vegetables" is the story of a woman who sees a neighbor cooking her couscous differently and wants to know why. Yia explains to her neighbor that she adds green and yellow vegetables from the garden to her children's meals because they are good for overall health and children's eyes. She says that the health worker taught her that diarrhea is not caused by vegetables (resistance point), but by dirty food and water. She also tells Fanta that she learned how to plant, grow, and prepare vegetables as well as to save vegetables for the dry season. The audience is shown different sources of vitamin A and told to ask the mobile team how to grow them themselves.

■ Strength

The slide shows are designed to be shown in the villages in the evenings and are accompanied by songs created by local villagers. The slide shows are interesting, and the story of Yia and Fanta helps people follow all the messages in a story format. The main benefit of these audio-visual programs, however, is the discussion generated after the program.

■ Implementor(s)

World Vision Mauritania, Nouakchott



Guidelines/Discussion Topics for Nutrition Slide Programs

Introduction

Hello, how are you doing? Hope you are doing fine. Tonight we will hear a conversation with Fanta and Yia about the use of vegetables. The health team is happy to be in your village again, to share with you this information.

SONG about vegetables and cultivation will be sung.

SLIDE start

Suggested discussion points directly after the slides are shown, using the following questions:

- What did Yia mix with her couscous?
- Where did Yia get her vegetables?
- During the dry season, where did Yia get her vegetables?
- What did Fanta learn about mixing food?
- What do you think about this?
- Why should you eat green and yellow vegetables?
- What vegetables do you eat?

SONG will be played again.

SLIDE PROGRAMS

"Yia and Fanta Cook a Meal with Green and Yellow Vegetables"

We all like to sit down to a tasty meal. It not only fills our bellies but also gives us the strength to do our work. The type of food we eat also helps us to stay healthy. There are many ways that we can improve the taste and nutrition of our daily meals.

One way is by using green and yellow vegetables in our couscous and rice. This is the story about how Fanta learned to make better meals for her family and to help protect the health and sight of her children.

Yia and Fanta are cooking the evening meal. Fanta has come to Yia to chat with her and sees that Yia is preparing her couscous a little differently than hers.

Fanta Good evening, Yia. How are you?

Yia Good evening, Fanta. I am fine and how are you doing?

Fanta I see that you are cooking a good couscous but what are you putting in more than the meat?

Yia Yes, Fanta, I am putting in some green and yellow vegetables from the garden.

Fanta But why? I only put in a bit of meat like I always do.

Yia The green and yellow vegetables come from the gardens that we have. I have learned that they are good for our health and the eyes of the children.

Fanta Who told you about this mixing of the foods? I have never done it or heard of it. I cook as my mother did and that is good enough for me and my family.

Yia Oh, Fanta! I learned the last time that the health workers came to our village that we could use green and yellow vegetables. My family thinks that they are tasty, and they are free since we grow them ourselves.

Fanta We also grow vegetables but we sell them to buy other foods. Don't you know that mixing foods will give you diarrhea?



SLIDE PROGRAMS

Yia No, Fanta! I have learned from health workers that it isn't true that mixing green and yellow vegetables with the couscous will give you diarrhea. We always have carrots or tomatoes in the couscous and we don't have diarrhea. It is dirty food and water that gives you diarrhea, not vegetables.

Fanta Perhaps it is true, as your children always seem healthy.

Yia I am glad for the vegetables because not only are they tasty in the food but also good for you. We also sell what we don't eat.

Fanta That is all good but what do you do when the gardens are finished? You can't sell or eat them.

Yia Yes, that is always a problem, but the health agent showed me how to dry and save the vegetables so that even in the dry season we can still eat them with our couscous.

Fanta That is all interesting, but even if I wanted to eat them, I wouldn't know how. Isn't it difficult to prepare and cook these green and yellow vegetables?

Yia No, Fanta! Just as I learned to plant and grow the vegetables and to dry and preserve the vegetables that I grew, the health worker showed me how to prepare and cook them for my family. Sit by me and I will show what I learned.

So Fanta learned how to cook the same vegetables that Yia always put in her couscous. Fanta also learned that these green and yellow vegetables not only made the couscous tastier, but also made the meal a healthier one that protected the health and sight of her children.

Some of the vegetables that Yia showed Fanta to put in the couscous were carrots, sweet potato leaves, potatoes, and tomatoes. These with the meat and milk in the meals ensured that their children received enough vitamin A to keep them strong, healthy, and with strong eyes.

When the mobile team comes, ask them about how you can grow green and yellow vegetables.

Preserve them for the dry season.

Prepare them to make tasty and nutritious meals. The health workers are waiting to help you when they visit your village or when you next go to the clinic in your area.



67

■ **Description**

Nutrition songs

■ **Country**

Mauritania, Assaba Region

■ **Language(s)**

Arabic, Hassaniya dialect

■ **Objective/Message**

The songs are used mostly in slide programs shown in villages but can be broadcast on local radio, played when the mobile health team enters a village, or sung during lessons as part of a group sing-along.

■ **Strength**

The songs were composed by local villagers and were more readily accepted than songs developed by a griot (traditional musician-poet). Audio cassette recordings helped ensure consistent project messages over the life of the project. The songs also enabled village health workers to reinforce messages.

■ **Implementor(s)**

World Vision Mauritania, Nouakchott

Translation of Songs Composed by Local Villagers of Assaba Region

Oh! Our people, let us grow and eat more vegetables,

Oh! Our people, let us grow and eat more vegetables.

We can easily have them in many pleasing colors,
their kinds are healthy and five altogether.

Potatoes, carrots, and tomatoes are some,

Cabbage and squash are also important.

Now I tell you only the truth,

So listen to these very important counsels.

It also those green beet leaves.

They are also very good and are full of vitamins.

Let us together eat and understand what is inside these
vegetables.

They are so good and powerful they can even change
our whole planet.

They heal the hungry and help our eyes get strong.

They also help kill many of those germs which could
make us sick.

Let us build our people.

Let us build our children and future.

Oh! Our people, let us grow and eat more vegetables,

Oh! Our people, let us grow and eat more vegetables.

SONGS

■ Description

Song, approximately 12 minutes

■ Country

Nepal

■ Language(s)

Nepali

■ Objective/Message

The song stresses the importance of vitamin A and its several natural sources (dark green leafy vegetables and yellow fruits and vegetables), particularly in the diets of young children and pregnant and lactating women. It is targeted to women in particular and farmers in general.

■ Strength

A song is an effective medium for communicating nutrition messages to a largely rural and illiterate audience that follows traditional practices. The 15-minute Farmers' Radio Program, aired each evening, devotes one show per week entirely to nutrition topics and frequently broadcasts the vitamin A song. The song, which describes a touching love story about newlyweds who soon face serious problems associated with the failing health of the young wife and the couple's newborn, is sung by one of Nepal's popular singers and is set to one of Nepal's most beautiful and popular folk tunes.

■ Implementor(s)

Nutrition Research and Development Division, Central Food Research Laboratory, Ministry of Agriculture, Kathmandu

Translation of Nepali Song

Mane, a young man of 25 strong and stout, fell in love with a neighboring girl of sweet 16, named Maya. The girl was lean and thin with long hair. But her face was happy and attractive. Mane was surprised to see that Maya was very selective in taking her food. She did not like to take any green vegetables, telling Mane she could cook potato, onion, and rice only. Mane was very good to take green vegetables and yellow fruits and became all the more healthy and attractive. But, alas, Maya became all the more sickly and started losing her beauty day by day. In the meantime, she became pregnant. Her neighbors started asking what has happened with Maya? She is losing her health day by day.

After 10 months, she gave birth to a sickly child. She threw away her first breast milk (colostrum) as most rural women do. Because of her ill health, she did not like to give breast milk to her child, who became all the more sickly in the long run.

Mane started losing his attraction for Maya and tried to motivate Maya to take vegetables and seasonal fruits and used to quarrel with her very often. The child also started suffering from fever, measles, diarrhea, too. Now Mane's life with Maya was miserable and he wanted to send her off to her Maitighar (parents' house).

Meanwhile, the boy became very ill. So they went to the local doctor for medicine. He gave some medicine and advised them to grow yellow fruits like papaya, banana, and green and other common vegetables like carrot, sweet pumpkin, cabbage, spinach, colocasia, green beans, etc., according to season, in the vacant land in front of their house and to take them in their daily diet. The doctor also advised Maya to give a share of their daily food to the child, who had become five months old by that time, in the form of porridge along with mashed green vegetables cooked with a little oil and mashed yellow fruits to make the baby healthy.

Mane and Maya loved their child. Maya was surprised to hear all this from the doctor. They returned to their house and started kitchen gardening vigorously and included dark green leafy vegetables and yellow fruits in their daily diet and started giving these to their beloved child. Maya and her child started regaining their health. Mane was happy. Their married life was saved from a tragedy.

BROADCAST MEDIA

■ Description

Videotapes, "The Greatest Treasure," "Light from Greens and Yellows," "Counter Blindness"

■ Country

Bangladesh

■ Language(s)

Bangla ("The Greatest Treasure"), English (others)

■ Objective/Message

The main messages in these videos emphasize the importance of regular consumption of green leafy vegetables and yellow fruits to prevent nutritional blindness. Sick and diarrheic children need to continue receiving foods rich in vitamin A as do pregnant and lactating women.

"Light from Greens and Yellows" and "Counter Blindness" explain the program to decision makers. "The Greatest Treasure" is a documentary film in drama form originally designed to be shown in cinema halls; but, after review, it was decided that the film might have been too complicated for illiterate people to remember all the messages. Consequently, it was shown as part of the education program at the village level. In addition, a one-minute spot with a single message was developed and shown in movie halls.

■ Strength

Videotapes can be highly effective in creating a story from a series of messages that can be easily remembered by a target audience.

■ Implementor(s)

Worldview International Foundation: Nutritional Blindness Prevention Program, Dhaka



BROADCAST MEDIA

■ Description

Video film, VHS, 20 minutes, 40 seconds; available in PAL, SECAM, or NTSC standards

■ Country

Philippines

■ Language(s)

English, Spanish, French, German

■ Objective/Message

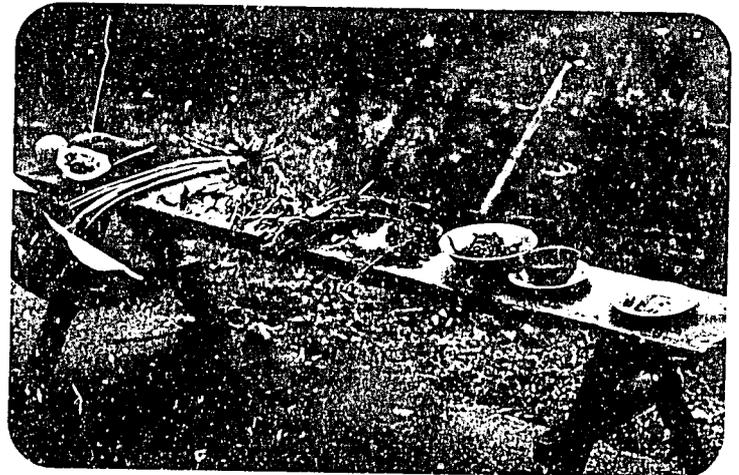
Filmed entirely in the Philippines in the slums of Manila, the rural province of Antique, and the west coast of Panay Island, the documentary explores the underlying causes of vitamin A malnutrition, demonstrates the tragic consequences of severe vitamin A deficiency, and emphasizes the importance of communications, training, and education in xerophthalmia prevention programs.

■ Strength

The film depicts the broad effort undertaken by the Philippine Nutrition and Health Services in collaboration with local medical and scientific experts and with private and international nongovernmental organizations such as Helen Keller International to develop and implement suitable vitamin A strategies, including the preventive treatment of children with high-dose vitamin A capsules, food fortification, nutrition counseling, and the local production and consumption of vitamin A-rich foods.

■ Implementor(s)

F. Hoffmann-La Roche, Ltd Task Force SIGHT AND LIFE, Basel, Switzerland



BROADCAST MEDIA

■ **Description**

Movie slides

■ **Country**

India, Tamilnadu State

■ **Language(s)**

Tamil

■ **Objective/Message**

A set of simple, colorful advertising slides was developed for use in movie houses to promote consumption of vitamin A-rich foods for protecting eyes and preserving sight. One slide specifies that green leafy vegetables are good for eyes (part of a multimedia campaign).

■ **Strength**

While movie slides are a good way to reach a large captive audience with a simple, easy-to-remember message, they might not reach the target audience. In many places, few women, especially mothers, go to public movie theaters.

■ **Implementor(s)**

Department of Public Health and Preventive Medicine, Health Education Bureau, Government of Tamilnadu, Madras



BROADCAST MEDIA

■ Description

Three television commercials on food values of inexpensive and widely available foods

■ Country

Philippines

■ Language(s)

Filipino

■ Objective/Message

The television commercials are intended to promote the nutritive "worth" of inexpensive and widely available foods and to increase the acceptance and consumption of these foods. The foods include five dark green leafy vegetables, two fruits, and five protein-rich foods.

■ Strength

Television is a medium that reaches a wide audience, including the lower socioeconomic class.

The television commercials are aired at prime time and therefore have more than adequate reach. The grant of free air time by the Association of Broadcasters of the Philippines permitted costs to be kept to a minimum.

The commercials highlight inexpensive and widely available vitamin A-rich foods for consumption by the target audience in place of less affordable foods. In addition, children deliver the copy in rhyme, thereby providing easy recall as well as visual and emotional appeal to child viewers and their parents.

■ Implementor(s)

Nutrition Center of the Philippines, J. Walter Thompson, Kapisanan ng mga Brodkasters sa Pilipinas (Association of Broadcasters of the Philippines), Metro Manila

Television Commercial 1

	VIDEO FILIPINO	AUDIO ENGLISH
<i>Announcer</i>	Pagkaing tama sa abot kayang halaga	The right kind of food at a reachable price.
<i>Child</i>	Ang dahon ng ampalaya ang sabi ni Inay masustansiyang gulay Ang Vitamin A na dulot di natalayo sa carrot. Kaya't malinaw ang mata, Pati kutis, mala-krema Pang bagets talaga. Ang dahon ng ampalaya.	The bittermelon leaf, says my mother, is a nutritious vegetable. The vitamin A it gives is not far from that of carrots. That's why my eyes are clear, skin smooth as cream. Truly for the young set. The bittermelon leaf.

Television Commercial 2

	VIDEO FILIPINO	AUDIO ENGLISH
<i>Announcer</i>	Pagkaing tama Sa abot kayang halaga.	The right kind of food at a reachable price.
<i>Child</i>	Ang itlog Pampalakas, pampataas karne ang katumbas Kay yaman sa Protina Puno ng sustansiya Ang itlog.	The egg. Gives strength. Makes us tall. Is equivalent to meat in its richness in protein. It's full of nutrients. The egg.

BROADCAST MEDIA

Television Commercial 3

VIDEO
FILIPINO

AUDIO
ENGLISH

Announcer Ang mulunggay

Pagkaing tama

sa abot kayang halaga.

The horse radish.
The right kind of food at a reachable price.

Child

Ang hamak na malunggay

Calcium at bitaminang taglay

Nakagugulat sapagka't

katumbas ng

dalawang itlog at isang basong gatas
Ang mulunggay.

The shunned horse radish with the calcium and vitamins it contains is amazing because it equals two eggs and a glass of milk.
The horse radish.



BROADCAST MEDIA

■ **Description**

Three radio spots

■ **Country**

Philippines

■ **Language(s)**

Filipino

■ **Objective/Message**

The objective of these radio spots is to convince mothers to prepare fruits and vegetables rich in vitamin A for their children.

■ **Strength**

The conversational, question-and-answer format involving audience participation helps to resolve resistance points.

■ **Implementor(s)**

Nutrition Center of the Philippines, Association of Broadcasters of the Philippines through the 230 radio stations in the country, Metro Manila

Radio Spot 1 on Vitamin A

■ **Title**

"Horse Radish"

■ **Objective**

To encourage mothers to include horse radish in the daily meals of the family

■ **Characters**

Anita (mother of five children)
Lucita (neighbor of Anita)
Male voice over

■ **Estimated Time**

48 seconds

Music

UP AND UNDER

Lucita

Anita, what are you cooking? That looks good.

Anita

Sautéed clams.

Lucita

What other ingredients do you include in that dish?

Anita

Horse radish leaves. It tastes good and is very nutritious. Do you know that 100 grams of horse radish leaves give as much vitamins and minerals as two eggs and one glass of milk?

Anita

Whenever I prepare sautéed chicken, sautéed mango, or any dish cooked in coconut milk, I always mix horse radish leaves. And you can easily grow this in your backyard.

Lucita

Aaah, Anita....

Anita

What's the problem?

Lucita

Can I have some horse radish leaves and cuttings?

Anita

What for? Are you going to cook the cuttings?

Lucita

No. I am cooking the leaves in coconut milk. I will plant the cuttings.

Music

UP AND UNDER

Male Voice Over

Horse radish is one of the most nutritious vegetables we have. Plant some in your backyard. They are easy to grow and propagate.

A short message from the Nutrition Center of the Philippines.

BROADCAST MEDIA

Radio Spot 2 on Vitamin A

■ Title

"Vitamin A-Rich Foods"

■ Objective

To encourage mothers to prepare vegetables and fruits rich in vitamin A for their children

■ Characters

Mario (4 years old, son of Gloria and Lando)

Gloria (26 years old, mother of Mario)

Lando (husband of Gloria)

Luz (friend of Gloria)

Male voice over

■ Estimated Time

45 seconds

<i>Music</i>	THEME UP AND UNDER (Sounds of crickets)
<i>Mario</i>	Look! There's father!
<i>Gloria</i>	Where? I can't see him.
<i>Mario</i>	He's over there.
<i>Gloria</i>	Ah, there he is.
<i>Luz</i>	I'm amazed. Mario can spot his father even from afar.
<i>Gloria</i>	I'm really proud of Mario. He has a very clear vision, clear and smooth skin, and he is very resistant to diseases and infections.
<i>Luz</i>	What do you feed him with?
<i>Gloria</i>	Aside from milk, I give him foods rich in vitamin A. Such as green leafy and yellow vegetables like horse radish leaves, taro leaves, sweet potato tops, and squash. I usually sauté them in coconut milk. I also give him yellow fruits like mango, papaya, and carristel tiesa.
<i>Luz</i>	I can see that you don't have to spend so much for food to get all the vitamin A, which Mario needs. (Sound of the door opening)
<i>Mario</i>	Father, do you have something for me?
<i>Lando</i>	I brought you papaya.
<i>Gloria/Luz</i>	Food for the eyes! ha! ha! ha!
<i>Music</i>	UP AND UNDER
<i>Male Voice Over</i>	A short message from the Nutrition Center of the Philippines.

BROADCAST MEDIA

Radio Spot 3 on Vitamin A

■ **Title**

"Swamp Cabbage"

■ **Objective**

To encourage mothers to prepare dishes with swamp cabbage, a rich source of vitamin A

■ **Characters**

Mama (about 28 years old)
Neneng (daughter, 5-6 years old)
Male voice over

■ **Estimated Time**

42 seconds

<i>Music</i>	UP AND OUT
<i>Mama</i>	Neneng, please help me prepare our lunch. I'll set the table.
<i>Neneng</i>	What do we have for lunch?
<i>Mama</i>	Fried fish and swamp cabbage cooked in vinegar, soy sauce, garlic, and oil.
<i>Neneng</i>	Swamp cabbage?
<i>Mama</i>	Yes. This is a palatable dish and good for the body. Aside from being cooked in oil, this dish is also rich in vitamin A. Do you know what vitamin A can do to our body?
<i>Neneng</i>	What?
<i>Mama</i>	Vitamin A is one of the nutrients that regulate body processes. It is essential for growth, night vision, healthy eyes and skin, and shiny hair. Vitamin A also helps build body resistance to infections.
<i>Neneng</i>	Ma, is swamp cabbage the only vegetable that is rich in vitamin A?
<i>Mama</i>	No. There are other vegetables like taro leaves, horse radish, squash, and sweet potato tops.
<i>Neneng</i>	So, that's the reason why you always cook those foods.
<i>Mama</i>	Because I want you to grow up healthy and strong.
<i>Music</i>	UP AND OUT
<i>Male Voice Over</i>	A short message from the Nutrition Center of the Philippines.

BROADCAST MEDIA

■ Description

Five radio spots

■ Country

Nepal

■ Language(s)

Nepali

■ Objective/Message

The objective of the radio spots was to sensitize the predominantly rural population to the importance of vitamin A for both general health and the prevention of night blindness in children. The various messages focused on the importance of feeding children dark green leafy vegetables and yellow fruits whenever available. The radio spots also promoted the intake of vitamin A-rich foods during pregnancy and the importance of breastfeeding after delivery. The spots mentioned the benefits of a kitchen garden.

■ Strength

The strength of the spots lies in their cultural appropriateness. The combination of specific health messages in a traditional culture allows the target audience to identify with the characters in the radio spots, thus reducing resistance to the spots themselves. Further, in a mountainous country such as Nepal where transportation is a problem, radio is an ideal medium for reaching large numbers of people at a relatively low cost.

■ Implementor(s)

SEVA Foundation, Nepal Netra Jyoti Sangh, Kathmandu

Radio Spot 1 on Vitamin A

■ Title

"Yellow Fruit and Green Vegetables—The Light of the Eyes"

■ Objective

No specific objective

■ Characters

Mother
Rama
Voice over

■ Estimated Time

60 seconds

<i>Mother</i>	Bah! This baby just keeps on crying. He just doesn't want to eat!!
<i>Rama</i>	Dear sister-in-law, why are you trying to force the food into the baby's mouth, when it looks as if the baby just doesn't have any appetite.
<i>Mother</i>	The baby just cries. He just doesn't want to eat anything.
<i>Rama</i>	Listen, when you feed your baby rice only, he is susceptible to the eye disease called night blindness.
<i>Mother</i>	What should I do? I don't know anything!
<i>Rama</i>	Listen carefully to what I have to say. Instead of feeding your baby rice, bread, and porridge, why don't you add lentils and green leafy vegetables with rice? If the green vegetables are shredded into small pieces and mixed with the rice, the meal would appear appetizing and the child would surely eat the meal. It would further enhance the brightness of the eyes and make your child strong and healthy as well. You should also feed your babies yellow fruits such as carrots, papayas, and mangoes.
<i>Mother</i>	What you say is truly to the point. I never used to feed the children vegetables and yellow fruits, thinking it was not necessary. Now that I've come to understand their properties and value, I will surely do as you suggest and add them to my children's daily diet.
<i>Voice</i>	Yes, every mother should feed her children green leafy vegetables and yellow fruits for healthy eyes.
<i>Slogan</i>	For the light of the eyes—green leafy vegetables.

BROADCAST MEDIA

Radio Spot 2 on Vitamin A

■ Title

"Yellow Fruit and Green Vegetables—
The Light of the Eyes"

■ Objective

No specific objective

■ Characters

Girl
Teacher
Boy
Students
Voice over

■ Estimated Time

60 seconds

Girl

(Memorizing) Carrots, Papaya, Pumpkin,
Saag (Spinach).

Teacher

This is correct, Jyoti. We should try to eat
carrots, papaya, saag, and pumpkin—a
nutrition factor called vitamin A is found
in great amounts in these fruits and
vegetables. What should we do to prevent
night blindness, a disease when a person
cannot see in dim light?

Boy

We should eat carrots, papayas, mangoes,
green vegetables every day.

Teacher

Yes, do you all eat these things every day?

Students

Yes, we do, miss, every day.

Teacher

When you cannot get yellow fruits such as
these, you should eat green leafy
vegetables instead.

Yellow fruits and green leafy vegetables
make your eyes healthy and your body
strong—you have all understood this,
haven't you?

Students

Yes, we have all understood, miss.

Teacher

From now on, you will eat these things
every day, won't you?

Students

Yes, we will eat them, miss, every day.

(Schoolbell rings)

Voice

To prevent night blindness, every child
should eat dark green leafy vegetables and
yellow fruits every day.

Slogan

For the light of the eyes—green leafy
vegetables.

BROADCAST MEDIA

Radio Spot 3 on Vitamin A

- **Title**
"Advice for a Mother"
- **Objective**
No specific objective
- **Characters**
Two mothers
Voice over
- **Estimated Time**
60 seconds

(Sound of a baby crying)

Mother 1 Bah! This child just keeps on crying. He just doesn't want to eat!

Mother 2 Dear bhauju (sister-in-law) (popular term for a married woman), why do you make the child cry by forcing the food into his mouth when he doesn't want to eat?

Mother 1 I'm feeding the child rice, but he doesn't want to eat anything. He just keeps on crying.

Mother 2 Oh, you are feeding him plain rice only? Then your children are susceptible to an eye disease called night blindness.

Mother 1 What shall I do? I don't know anything.

Mother 2 You should not feed your children only plain rice. You should feed them rice mixed with shredded green vegetables. Also, bhauju (sister-in-law), if you feed them lots of green vegetables, the eyes will be bright and the body strong and healthy.

Mother 1 Oh, now I understand. Can I feed him fruits or not?

Mother 2 If you can feed your child fruits, all the better. You should feed yellow fruits like papayas, carrots, and mangoes.

Mother 1 Oh, now I understand what you mean. From now on, I will feed him green vegetables and yellow fruits every day.

Voice Yes, every mother should feed her children dark green leafy vegetables and yellow fruits every day for bright eyes and a healthy body.

Slogan Dark green leafy vegetables for the light of the eyes.

BROADCAST MEDIA

Radio Spot 4 on Vitamin A

■ **Title**

"Night Blindness—Grandmother and Agricultural Field Worker"

■ **Objective**

No specific objective

■ **Characters**

Grandmother
Junior Technical Assistant (JTA)
Voice over

■ **Estimated Time**

60 seconds

Grandmother

Junior Technical Assistant Sahib! I don't know what happened to my granddaughter. As soon as it gets dark, she can't see properly—what medicine shall I give her?

JTA

If the child cannot see at dusk, she might have night blindness, auntie. This disease is caused by a lack of vitamin A in the body. To prevent this disease, we need not give medicines, but we should feed children yellow fruits like mangoes, carrots, papayas, and pumpkins.

Grandmother

I don't have a garden and I don't have money to buy these fruits. What shall I do?

JTA

Listen, auntie, not only yellow fruits, any green leafy vegetables which grow in your kitchen garden should be fed daily to prevent night blindness. If you can afford milk, curd, and eggs, all the better.

Grandmother

In that case, I'm going to feed her this every day.

Voice

Yes—parents should protect their children from night blindness and feed them green leafy vegetables and yellow fruits every day. If they already have symptoms of night blindness, they should be brought to the health post, eye hospital, or eye camp for treatment.

BROADCAST MEDIA

Radio Spot 5 on Vitamin A

■ **Title**

"Vitamin A Song" (based on a popular folk tune)

■ **Objective**

No specific objective

■ **Characters**

Singer 1

Singer 2

Doctor

■ **Estimated Time**

60 seconds

Singer 1

Eat fruits like mangoes, carrots, papayas, and pumpkins.

Singer 2

If you eat yellow fruits, your eyes become bright. (Repeat)

Singer 1

We should eat green leafy vegetables every day.

Singer 2

This brightens our eyes and makes us healthy. (Repeat)

Singer 1

The doctor says,

Doctor

If one doesn't eat enough vitamin A-rich foods, one cannot see well at dusk. This is called night blindness and it can render small children blind for life. To protect your children from this terrible fate, feed them green leafy vegetables and yellow fruits daily. This brightens their eyes and makes them healthy.

BROADCAST MEDIA

■ Description

Radio minidrama, "Fruit and Green Leafy Vegetables—Light of the Eyes," approximately 8 minutes

■ Country

Nepal

■ Language(s)

Nepali

■ Objective/Message

The objective of the minidrama was to sensitize the audience to the issue of vitamin A-rich weaning foods composed of locally available foods as a way to prevent night blindness

■ Strength

The minidrama relied on elements familiar to the largely rural audience and thereby enhanced acceptance of the message

■ Implementor(s)

SEVA Foundation, Kathmandu

(Sound of a baby crying)

Husband This baby cries a lot. I say, didn't you hear him crying, are you deaf or what?

Wife Being a father of children yourself, don't you appreciate a child's crying? In which case why did you get married and father children? Coochie, coochie coo ... my darling son, don't cry so. Your father doesn't like you crying, so please be calm now, OK?

Husband Bah! You needn't shout so much. I am fully aware of your behavior, you hesitate to take the children to the market or the fairs. Even though you are the mother of four children, you still have this aptitude to behave and look like a young girl.

Wife It's for you that I try to look attractive and young. You've grown old, but you still haven't changed your ways.

(Sounds of cattle bawling)

Husband All right, all right—I just can't debate with you. I am going to feed the cattle. Please fill in my pipe for a smoke, dear!

Wife Why don't you prepare it yourself—don't you think I have other things to do, like feeding the baby! (Child cries.) Soo, soo, my son, even though you are hungry, why don't you eat? Come on take this—why don't you swallow?

(Sounds of dog barking)

Rama Oho! Bhauju (sister-in-law) (popular term for a married woman), are you feeding the baby?

Wife Do come in, miss, look at the way this baby is giving me so much trouble. (Baby cries.) Bah! he just doesn't want to eat.

Rama Dear sister-in-law, why are you trying to force the food into the baby's mouth, when it looks as if the baby just doesn't have any appetite.

Wife The baby just cries, he just doesn't want to eat.

BROADCAST MEDIA

- Rama* Ah! It's because you feed your babies only rice that your children are susceptible to the eye disease called night blindness.
- Wife* What should I do, miss? I don't know anything!
- Rama* Listen to what I have to say. Instead of feeding your babies rice, bread, and porridge, why don't you add daal and green leafy vegetables with the rice? If the green vegetables are shredded into small pieces and mixed with the rice, the meal would appear appetizing and the child would surely eat the meal. It would further enhance the brightness of the eyes and make the child strong and healthy as well.
- Wife* What you say is truly to the point. I never used to feed the children vegetables, thinking it not necessary. Now that I've come to understand the properties and value of vegetables, I will surely do as you suggest and add them to my children's daily diet.
- Rama* Yes, dear sister-in-law, you should do that 100 percent.
- Wife* Now I have understood. It is really a big disadvantage to be ignorant about such things.
- Rama* One should also try to eat the young shoots of the pumpkin plant—they make the eyes healthy and bright. We should also eat the pumpkin very often since it, too, helps to make the eyes healthy, and especially foodstuffs such as carrots and yellow fruits such as papayas and mangoes.
- Wife* Sure thing, miss! Thank you very much for your good advice. From now on, I am going to feed my children green leafy vegetables and yellow fruits. Have you come alone or is Master Sahib (form of address for a school teacher) with you?
- Rama* We've come together—there he is coming along talking with your husband.
- Wife* I remember you telling me that a pregnant woman should eat a lot of green leafy vegetables and yellow fruits, isn't that so, miss?
- Rama* Yes, you should.
- Wife* I hope you won't mind or feel embarrassed when I ask you this. You look six months pregnant—are you eating green leafy vegetables and fruits? It's been a long time since you have come to us for vegetables.
- Rama* Oh! It's nothing like that. We have started maintaining a small kitchen garden near the school and we get all the vegetables we require from that garden.
- Wife* Namaskar, Master Sahib.
- Master* Namaskar, Bhauju. What are you two gossiping about? I'm quite aware about the nature of females—whenever you get the opportunity, be it at the well or be it anywhere, females are bound to gossip.
- Wife* We are, but today we are talking about the prevention of eye disease called night blindness by feeding our children green leafy vegetables and yellow fruits, isn't that so, miss?
- Rama* That is what I say. These males—trying to contradict us at each and every step!

BROADCAST MEDIA

- Master* Why do you take offense at my staying? I do agree with you sometimes we should have such talks.
- Husband* Master Sahib, recently we have been hearing over the radio about green leafy vegetables and yellow fruits being the light of our eyes—I couldn't quite understand, would you kindly explain to me?
- Master* Listen to what I have to say very carefully; you too, Bhauju. After a child's birth, he should be breastfed for two years. To protect our children from various illnesses such as diphtheria, whooping cough, and measles, we should have them immunized at the appropriate time. The surrounding areas of our house should be kept neat and clean to prevent diarrhea among our children. After the rice-feeding ceremony, breastfeeding only is not enough for the children to obtain necessary nutrition, so we should add pulses and lentils as well as green leafy vegetables in our children's diet.
- Wife* What happens when there is a deficiency of vitamin A in the body, Master Sahib?
- Master* What happens is that a child cannot see well, like others, during dusk; he just sits in the same place without doing anything or reading. While eating his dinner, he reaches for the food outside the plate; while walking in the night, he stumbles around. Such children are susceptible to recurrent diarrhea bouts, measles, and fever; as such, they become thin and emaciated. Later on, they go blind.
- Husband* Master Sahib, is illness a reason for such condition among children?
- Master* Yes, that is exactly what I've been trying to convey. Like I've already explained earlier, the reason is an eye disease in children called night blindness whereby children cannot see properly at night. Though appearing insignificant at first, this disease could be fatal.
- Wife* Now I've clearly understood what you've just said, Master Sahib! We should always feed our children green leafy vegetables and yellow fruits to make their eyes healthy and their bodies strong. Now I'm going to feed my children every day as you have suggested.
- Husband* Yes, to protect our children from such fatal diseases as night blindness, we should feed our children properly. Most of the time you feed your son only rice, that is why everybody teases him by calling him "Bhaat Bahadur" (Rice Peter). From now on you should feed the children green leafy vegetables, isn't that so, miss?
- Rama* Yes! Once afflicted with this disease, if you delay in seeking treatment for your child, he may become blind. Then there wouldn't be any use crying over spilt milk! Many people, because they are not aware of these facts, have destroyed their children's lives. That is why every parent should immediately seek treatment for their children at the eye hospital once they recognize the symptoms of this disease. "If parents want to protect their children from night blindness—there is a simple way—it would be sufficient if they fed their children yellow fruits such as carrots, papayas, and mangoes and green leafy vegetables from their own gardens."
- Husband* OK! It's agreed then, that's what we should do from now on!

■ **Description**

T-shirt

■ **Country**

Mauritania, Assaba Region

■ **Language(s)**

French

■ **Objective/Message**

This simple T-shirt promotes green and orange vegetables as sources of vitamin A that are beneficial to vision.

■ **Strength**

The T-shirt is a simple, colorful means of mobile publicity.

■ **Implementor(s)**

World Vision Mauritania, Nouakchott



■ **Description**

Plastic ruler, 12"; Key chain; Stickers, four sizes from 2" X 3" to 4-3/4" X 7"

■ **Country**

Thailand

■ **Language(s)**

Thai

■ **Objective/Message**

Each of the items conveys the overall project message, "A Mother Loves Her Child," and a specific slogan to motivate the desired behavior, "Let's Grow Ivy Gourd." School children received rulers while learning about growing the vitamin A-rich ivy gourd and as gifts on special occasions such as National Children's Day. Local officials and health workers received key chains as gifts for helping with project events and on special occasions such as New Year's. Project stickers were applied to project materials, prizes for ivy gourd-growing competitions, notebooks, vehicles, and public relations packets.

■ **Strength**

These functional, eye-catching items continually fostered awareness of the vitamin A project and reinforced the behaviors suggested by the overall message, "A Mother Loves Her Child." Tokens of appreciation given to supportive community members can contribute to the positive impression of a project in the community and generate enthusiasm among participants.

■ **Implementor(s)**

Social Marketing of Vitamin A Rich Foods (SM/VAF), Institute of Nutrition, Mahidol University, Nakhon Pathom



OTHER

■ Description

Papaya and moringa sticker, 1-1/2" X 5"

■ Country

India, Tamilnadu State

■ Language(s)

Tamil

■ Objective/Message

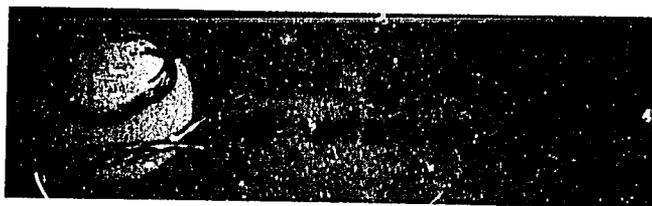
The sticker specifies that papayas and moringas are beneficial for eyesight. It was designed to be affixed to boxes, handbags, tables, and other objects. A larger sticker was developed to be used on vehicles and in public places (as part of a multimedia campaign against blindness). It should be noted that the moringa pod is relatively low in vitamin A. It is the moringa leaves that are a rich source of vitamin A. The sticker should have encouraged the consumption of moringa leaves, not the moringa pod (which is widely consumed).

■ Strength

Stickers can be effective in publicizing a message, especially if they come in different sizes for different purposes. They are particularly popular with children.

■ Implementor(s)

Department of Public Health and Preventive Medicine, Government of Tamilnadu, Madras



■ Description

Cloth banner

■ Country

India, Tamilnadu State

■ Language(s)

Tamil

■ Objective/Message

As part of a multimedia campaign, the banner urges the protection of eyes and preservation of sight. The banner is designed to catch the attention of passersby.



■ Strength

Banners are a good way of reaching people in the street, at a market, and at other public places. They probably publicize an event more effectively than does a promotional message.

■ Implementor(s)

Department of Public Health and Preventive Medicine, Health Education Bureau, Government of Tamilnadu, Madras

Examples of Some Communications Programs

The following summaries of seven vitamin A-deficiency intervention communications programs provide insights into planning nutrition communications strategies. Included are projects from Bangladesh, Brazil, India, Indonesia, Mauritania, Nepal, and Thailand.

Information was not always readily available for all aspects of the projects; thus, the level of detail in the summaries varies. Further, each project was organized around a different concept or framework, which, in turn, dictated much of each project's structure and operation and accounts for programmatic and organizational variation.

Several factors affected program success. For example, the level of funding and degree of community involvement influenced, to a large degree, whether materials and community participation

were adequate to make a pronounced change in nutrition behavior. In some cases, program duration appeared to have been too limited to permit the adoption of new practices and beliefs. Another factor that influenced success was the availability and degree of outside technical assistance. Sometimes the benefits of experience gained in earlier vitamin A interventions offered powerful insights into the development and implementation of vitamin A intervention programs.

The program summaries are preceded by a matrix that arrays the main features of all seven programs. The matrix underscores the richness, diversity, and multitude of variations in the effective use of communications in redressing vitamin A deficiency. This compilation serves as a quick checklist for both nutritionists and communications experts.

KEY TO SYMBOLS



Seizing the Opportunity for Change



Developing the Communications Strategy



Conducting the Field Investigation



Using Creativity To Deliver the Message



Pretesting the Materials



Launching the Program



Monitoring the Program



Evaluating the Program



Finding Communications Specialists

Features of Seven Nutrition Communications Programs

	Bangladesh	Brazil	India	Indonesia	Mauritania	Nepal	Thailand
■ TARGET GROUPS							
Children, infancy-10 years	•	•			•	•	
Lactating and pregnant women				•			
Mothers			•	•	•	•	•
Parents	•			•			
Grandmothers				•			•
Unmarried sisters							•
Health workers, health professionals						•	•
Others in the community	•						•
■ PROJECT ACTIVITIES AND INITIATIVES							
Community or home gardens	•	•			•		•
Demonstration gardens/gardening			•		•		
Provision of tools, seeds, or plants					•	•	•
Vegetable-growing competitions			•				•
Vegetable production in pots			•				
Food storage and preservation					•		
Vendor sales of vegetables			•				
Small animal husbandry							•
Nutrition education sessions		•	•		•	•	
Cooking demonstration			•		•		
Encouragement of breastfeeding	•		•			•	
Preparation of weaning foods with vegetables					•	•	
Supplementary feeding of children			•				
Follow-up of malnourished children			•				
Vitamin A capsule distribution	•	•	•	•	•	•	
Immunization		•	•		•	•	
Deworming			•		•	•	
Oral rehydration therapy			•		•	•	
Promotion of personal/environmental hygiene			•		•		
Meetings with mothers		•					
Income generation			•				
Female volunteer home visits	•						
Literacy classes			•			•	

	Bangladesh	Brazil	India	Indonesia	Mauritania	Nepal	Thailand
■ CONTENT OF MESSAGES AND DESIRED BEHAVIOR							
Consume/feed vitamin A-rich foods	•	•	•	•	•	•	•
Consume/feed balanced diet		•	•				
Breastfeed, including colostrum	•					•	
Prepare/feed vitamin A-rich weaning foods				•	•	•	
Consume wild GLVs						•	
Promote digestibility of GLVs				•			
Grow vitamin A-rich foods	•	•	•		•		•
Attend vitamin A capsule distributions		•	•	•	•		
Participate in food/health interventions			•				
Feed sick children	•		•			•	
Weigh children periodically			•		•	•	
Drink safe water	•						
Give oral rehydration therapy	•				•	•	
■ MEDIA USED							
<i>Print Media</i>							
Pamphlets, brochures		•	•				•
Newsletters, magazines						•	•
Calendars	•						
Cartoons							•
Posters, charts	•	•	•	•		•	•
Roadside billboards, street banners	•	•		•			•
Leaflets dropped by aircraft		•					
Manuals, booklets	•			•	•	•	
<i>One-to-One Discussions</i>	•			•			•
<i>Presentations and Group Interactions</i>							
Folk music, shows, dramas, poetry, art	•		•		•		•
Role plays			•		•		
Flannelgraphs			•				
Mothers' meetings		•	•			•	
Flipcharts, counseling cards	•			•		•	
Demonstrations with discussion			•		•		
Health exhibitions/classes			•				

	Bangladesh	Brazil	India	Indonesia	Mauritania	Nepal	Thailand
Clowns		.					
Periodic visits by mobile health teams					.		
Information via market vendors				.			
<i>Slide Programs</i>	.		.		.		
<i>Songs</i>	.			.	.		
Concerts							.
<i>Broadcast Media</i>							
Radio announcements, dramas
Public loudspeakers				.			.
Television advertisements		.					.
Videos, films	.		.			.	
<i>Other</i>							
T-shirts		.			.		.
Key chains, rulers							.
■ SOURCE OF PROGRAM SUPPORT							
Community workers/volunteers
Community leaders/officials	
Social mobilization	
Agricultural professionals, extension staff					.	.	.
Medical professionals, health officers	
Market vendors			.	.			
Teachers
University students				.			.
Youth		.	.				
Religious organizations							.
Private industry, banks		.	.				
Broadcasters association							.
Traditional artists, griots	.		.		.		
Market research firm, advertising agency				.			
■ PROGRAM LINKAGES							
Primary health care delivery system		
Immunization program		.			.		
Child survival program					.		
Educational system	.				.		
Adult literacy program			.			.	

Bangladesh

Vitamin A deficiency affects all age cohorts in Bangladesh, but loss of eyesight is largely limited to preschool-age children. About 1 million children under six years of age suffer from eye diseases, including night blindness due to vitamin A deficiency. In response to this public health problem, Worldview International Foundation, with funding support from the Swedish International Development Authority (SIDA), the Stromme Memorial Foundation (SMF), and the Dutch Organization for International Development Cooperation (NOVIB), launched the extended Nutritional Blindness Prevention Program (NBPP) in three northern districts of Bangladesh.

PROJECT OBJECTIVES

The broad objectives of the program were to reduce the prevalence of night blindness among children under nine years of age, to raise rural parents' awareness of program messages, to increase the target audience's production and consumption of vitamin A-rich fruits and vegetables, and to change food habits of children. Between 1987 and 1989, the program set out to

- reduce the prevalence of night blindness from 3.88 percent to 2.88 percent among children under nine years of age;
- raise awareness within the target group of the cause of nutritional blindness among children from the base 18 percent to 45 percent in the first year, to 65 percent in the second year, and to 80 percent in the third year;
- educate and motivate the target group to grow vitamin A-rich vegetables (such as colocasia, spinach, pui shak, sweet pumpkin, red amaranth, and carrot) by increasing the base 10 percent participation to 30 percent in the first year, to 45 percent in the second year, and to 60 percent in the third year;

- motivate the target group to grow yellow fruits such as papaya and mango by expanding the base 7 percent participation to 20 percent in the first year, to 30 percent in the second year, and to 40 percent in the third year; and

- inform and motivate the target group to change food habits by increasing the base 19 percent to 25 percent in the first year, to 30 percent in the second year, and to 35 percent in the third year.

PROJECT DURATION

Following a three-year pilot phase between 1984 and 1986, the Nutritional Blindness Prevention Program was expanded to cover four districts in phases. The NBPP covered Rangpur District in 1987 and underwent evaluation in 1989; the program then covered Dinajpur District in 1988 and underwent evaluation in 1990. In early 1990, the NBPP initiated efforts in Lalmonirhat and Gaibandha districts. These projects will conclude in December 1992 and March 1993, respectively.

TARGET AUDIENCES

Since the beginning of the program in 1984, more than 5 million people have received educational and motivational messages concerning long-term solutions to vitamin A deficiency and the services of the NBPP. The primary target is 1.32 million children under nine years of age who live below the subsistence level in the districts of Dinajpur, Lalmonirhat, and Gaibandha. The secondary target is parents of these children.

APPROACH

The overall program approach called for developing a critical awareness among and motivating the target population to grow and consume vitamin A-rich food. Intensive and mass media approaches were used to attain these goals. The strategy was

the result of a three-year pilot program conducted by the Worldview International Foundation (WIF): Nutritional Blindness Prevention Program (NBPP) conducted in the Pirgonj Upazila subdistrict of Rangpur and evaluated by HKI and the Institute of Social Welfare and Research, Dhaka University (ISWR). WIF conducted the pilot in collaboration with SMF-Norway as a media campaign to combat vitamin A deficiency in food intake due to lack of knowledge and faulty food habits.

Working through schools and using traditional folk singers to transmit information about better feeding habits and health have proven to be the most promising new approaches. Schools serve as a vehicle for social mobilization to reduce nutritional blindness and provide access to children when they are still open to new ideas. School children not only act as effective agents for disseminating knowledge to families but also become accustomed to growing vitamin A-rich foods. Traditional folk media play a major role in message delivery and thus affect the lives of rural people. Since 1981, the NBPP has recognized folk media as a useful tool for reaching men and women in villages and relied on various folk media to reach the target audiences. Campaigns that took advantage of radio and television broadcasts, posters, and documentary films have also been found to be effective.

Due to differential access to information for men and women in the population, awareness among men is higher than among women. Considering the low awareness among mothers, the NBPP adopted a women's volunteer approach in 1987 as part of its media package. Specifically, the NBPP engaged women volunteers to reach rural target women. This approach complements mass media and other program activities. The women volunteers make intensive and regular routine home visits to grandmothers and mothers—the primary managers of children's diets—throughout the NBPP target population. The volunteers visit each household, familiarize the mother with the seven program messages (described later), and demonstrate how to prepare food. Women volunteers also search for children with night

blindness in the locality, record the appropriate information, and supervise efforts to restore the sight of the afflicted children. The volunteers refer acute cases of night blindness to health complexes.

USING CREATIVITY TO DELIVER THE MESSAGE



To design messages to reach the target audience through media channels, the program convened an Advisory Message Council of representatives from various organizations, including the Bangladesh Institute of Distance Education (BIDE); Helen Keller International; the United Nations Children's Fund (UNICEF); the World Health Organization (WHO); the Institute of Nutrition and Food Science (INFS); the Institute of Ophthalmology; the International Center for Diarrhoeal Disease Research, Bangladesh (ICDDR,B); and the National Nutrition Council, Bangladesh. The seven messages created were

- Regularly give your children yellow fruits as well as green leafy vegetables, cooked with a little edible oil or pulses of peanut, to prevent nutritional blindness.
- Plant papaya trees around your house because papaya and yellow fruits will save your children's sight.
- If your baby stumbles after dusk and suffers from xerophthalmia, give the baby enough green leafy vegetables and yellow fruits to eat.
- Illness causes vitamin A deficiency in children. Feed them more green leafy vegetables and yellow fruits to compensate.
- A child suffering from diarrhea should be given saline water and a paste of vitamin A-rich vegetables and rice.
- Give pregnant and lactating women green leafy vegetables and yellow fruits because their children get nourishment from the mother's body. Continue to breastfeed for at least two years.
- Drink tube-well water. Don't drink pond or ring-well water unless it is boiled.

LAUNCHING THE PROGRAM

The program's training component called for preparing the program's personnel, folk singers,



A folk musician delivers the program's nutrition messages.

 teachers, and women volunteers to deliver the nutrition messages. It also organized workshops for local social and religious leaders. Training was conducted through class lectures, video documentary films, overhead and slide projector visuals, flipcharts, posters, written materials, manuals, and audio tapes. During 1985 and 1986, approximately 1,500 media workers received training under the program. In 1987, 3,500 trainees were scheduled to attend postflood health hazard training sessions, including rural mothers who were to be encouraged to grow vitamin A-rich vegetables and fruits as a strategy for including such foods in their daily diet. Further, between 1988 and 1991, a total of 13,213 media workers, influential rural mothers, and social and religious leaders

attended different training sessions offered by the program.

EVALUATING THE PROGRAM

 At the beginning of the media campaign, WIF engaged HKI to conduct the evaluation. As per agreement, HKI was expected to perform the evaluation in three phases. HKI completed the first- and second-phase evaluations but could not complete the final-phase evaluation on time. As a result, the program selected ISWR, Dhaka University, to conduct an interim evaluation pending final evaluation by HKI. Some of the major findings and recommendations included the following:

- The media campaign achieved overall

success in increasing rural villagers' awareness of the relationship between night blindness and nutritional deficiency and in enhancing parents' ability to prevent night blindness by growing more GLVs and yellow fruits in their home compounds and feeding such essential foods to their children.

- The seeming decrease in night blindness may be attributed to the positive impact of the program, although such a finding should be treated tentatively pending a longer-term trend assessment with a larger study sample.

- Radio and television played an important role in both program and nonprogram areas. In particular, posters, folk media, and documentary films were highly effective. Cinema slides, spots, flipcharts, and roadside signboards were less appropriate in conveying the message to the masses, especially to women.

- Neighbors or informal "word of mouth" communications were a source of information on measures to prevent night blindness, particularly among women. In fact, other media campaigns identified the importance of this source.

- An increased number of children began growing and consuming GLVs and yellow fruits, although the results for GLVs were better than for yellow fruits. Attempts to increase awareness and consumption of small fish were less successful.

- Program messages, primarily those delivered through the educational motivational campaign, were a success and should be repeated elsewhere and on a large scale.

- The school approach must be refined to increase the involvement of teachers, guardians, and community leaders in program activities. Good performers should be provided with stronger incentives.

- The folk song medium should be enriched by new songs and poems that deliver the most relevant messages.

- Radio broadcasts should not be overemphasized at the neglect of other media; without the others, the efficiency of radio is likely to be lost.

- Television was not adequately exploited.

Frequent spot advertisements and other educational messages from the program should be carried on television. Additional messages advocating the importance of oral electrolyte solution, safe drinking water, and breastfeeding should be developed for television transmission.

- Billboards and display boards were not effective because many villagers are illiterate. Posters, however, yielded more positive results. Further efforts in these media should be combined with promotion of literacy.

- Messages and media materials should be more carefully pretested. For example, the film *Anulya Dhan* can be shortened but still retain the essentials. The cinema slides were not attractive enough to produce a lasting effect. More appropriate slides should be developed by experts and evaluated through audience reaction before final incorporation into media materials.

- Emphasis should be placed on training community leaders, health workers, school teachers, and religious leaders (imams of mosques) about the entire program. Periodic gatherings such as workshops, group discussions, and field visits should be arranged for the trainees. Voluntary social welfare agencies that work in the area should be involved.

- Instead of the many male workers, female motivators and trainers should work with women in the NBPP.

- The nutrition manual should be improved for development into a modern but simple booklet.

RESULTS IN RANGPUR

After three years of operation (1987 to 1989) in the eight subdistricts of Rangpur, the NBPP was evaluated by the Institute of Nutrition and Food Science of Dhaka University. The major achievements as compared to the objectives follow:

- The rate of night blindness was reduced by 1.05 percent compared to the target level of 1 percent.

- In three years, the awareness of night blindness increased to 88–91 percent versus the target 80 percent.

- The proportion of the respondents (71

percent) who had grown the recommended vegetables exceeded the target 60 percent, while 44.66 percent of the study population had grown yellow fruits compared to the target 40 percent.

- Women volunteers and folk singers were the most effective media followed by documentary films, posters, and radio.

ACHIEVEMENTS IN DINAJPUR

After three years of operation (1988 to 1990) in Dinajpur, two evaluations were conducted: one by the Institute of Nutrition and Food Science of Dhaka University and the other by two foreign consultants (a social marketing expert and an agricultural engineer). The major findings of the final evaluation indicated the following:

- The overall rate of night blindness per 100 households decreased from 5.92 percent to 3.23 percent. The rate per 100 children aged one to six years was 1.13 percent.
- Almost all respondents (95 percent) could accurately describe night blindness, while 90 percent also knew the age of occurrence. A significant proportion of parents (81 percent) were

aware that a lack of vitamin A causes night blindness. About 98 percent were convinced that the recommended food was essential to prevent night blindness. The data also showed that cultivation of vitamin A-rich fruits and vegetables increased by more than 40 percent and 60 percent, respectively.

- With respect to changing feeding practices, the evaluation found that 73 percent of families sometimes consume vegetables and that 34 percent of children aged one to 15 years consume vegetables at least four times a week.

FINDING COMMUNICATIONS SPECIALISTS



The Worldview International Foundation: Nutritional Blindness Prevention Program developed materials, designed messages, and implemented its plan with technical assistance from the WIF media center and other organizations in developing audio-visual aids, films, slides, and other materials under the guidance of the Message Advisory Council. The Institute of Public Health and Nutrition of the Ministry of Health also assisted by distributing vitamin A capsules to children afflicted with severe vitamin A deficiency.

Caruaru, Brazil

Caruaru is located 75 miles west of Recife in the state of Pernambuco in Northeast Brazil. Often called the "capital of the Agreste" (Brazil's semi-arid region), Caruaru is the second most important center of trading and commerce in the Agreste. Despite Caruaru's advantages as an economic hub, various indices, including World Health Organization (WHO) criteria, pointed to inadequate vitamin A intake among children as a significant public health problem during the 1980s. Specifically, the medical community had observed cases of advanced vitamin A deficiency which could be indicative of a public health problem.

One difficulty in combating vitamin A deficiency in developing countries is the lack of relevant information on the magnitude of the problem. In this respect, the experience gained in the Caruaru Vitamin A Program can be instructive. Based on fragmentary information on the extent of vitamin A deficiency in children, the Caruaru Secretary of Health decided that the data were sufficiently suggestive of a problem to warrant intervention. Subsequently, the city of Caruaru, in conjunction with the Federal University of Pernambuco, undertook an intervention program funded by the community itself using vitamin A supplements provided by F. Hoffmann-La Roche. Field Force SIGHH AND LIFE. Evaluation of the program was carried out by the U.S. National Academy of Sciences (under a USMID grant) and the National Research Council Brazil.

PROJECT OBJECTIVES

The Caruaru Vitamin A Program was structured around two objectives. The first objective was the short-term distribution of five doses of vitamin A to all children under six years of age (200,000 IU to children over one year of age; 100,000 IU to children under one year of age). The second objective was a longer-range effort aimed at

providing nutrition education to mothers, children, and other members of the community to encourage increased intake of vitamin A from food. The program did not establish a control group. From the perspective of the Department of Nutrition of the Federal University of Pernambuco (a key participant in the program), the main objective of the Caruaru Vitamin A Program was to test the capability of the existing health delivery system as a mechanism for distributing vitamin A supplements. The existing health delivery system was already charged with responsibility for administering vaccinations under Brazil's National Immunization Program, providing prenatal care, treating casualties, offering pediatric follow-up, and preventing gynecologic cancer.

TARGET POPULATION

As noted, the target population was all children under six years of age residing within the city of Caruaru. The program was not targeted to at-risk children but rather was universal in its coverage of infants and preschool-age children.



Gardeners grow green leafy vegetables in a city lot.

DURATION

The Caruaru Vitamin A Program operated between September 1985 and September 1987. In 1986, the National Institute of Food and Nutrition (INAN) and the state health secretaries began distributing vitamin A supplements as part of the immunization program in Brazil's Northeast States. In 1987, the Caruaru program was integrated into Brazil's ongoing National Immunization Program. In 1991, the initiative was expanded to cover the entire state of Pernambuco and has provided three additional or "booster" rounds of vitamin A distribution.

APPROACH AND STRATEGY

The Caruaru Vitamin A Program mobilized community resources and capitalized on the commitment of Caruaru's political and health leaders to institute a sustainable intervention program. At the outset, the Caruaru City Council turned to the Department of Nutrition at the Federal University of Pernambuco for advice in the design and implementation of a vitamin A intervention that the municipality could afford. The Department of Nutrition, in turn, served as an adviser to the Caruaru Secretary of Health. From the outset, however, it was clear that any vitamin A intervention would be a program of the Caruaru Secretary of Health. Such an approach would eliminate the need for the involvement of and/or any dependence on state and federal government authorities. At the same time, a program promoted as a municipal enterprise would prevent any public perception of university participation for "research" or "experimental" purposes.

The Caruaru Secretary of Health succeeded in securing community collaboration in the vitamin A intervention, particularly in terms of the target population's participation in the distribution rounds, the voluntary involvement of the community's public and private sectors in program activities, and financial support for essential materials and supplies. Moreover, the program took advantage of the primary health care delivery system as the model for implementing the intervention. The overall program strategy added a distinctively "local

touch" to the effort, transforming it into a program desired and eventually demanded by the community. Caruaru required outside help only for the supply of the vitamin A supplement and for undertaking laboratory analyses (performed by the Department of Nutrition) of clinical signs of vitamin A deficiency in the target population.

As for a specific program strategy, the Caruaru Vitamin A Program used a "campaign" strategy to elicit participation in the five rounds of vitamin A distribution. In the context of Brazil, a campaign is an effort to attract the community to health posts during a given day for a particular health intervention. Such a strategy had proven successful at the national level in an effort to promote participation in a polio vaccination program. As a result, the vitamin A program built on the population's established practice of visiting vaccination posts in response to campaigns. For their part, the program implementors took all necessary steps to ensure the distribution and delivery of supplements required by the target population in a series of five periodic campaigns and three booster campaigns.

CONDUCTING THE FIELD INVESTIGATION



The formative information collection effort was carried out by the Department of Nutrition between March and August 1985 and included dietary intake surveys of children (based on interviews with mothers) and a biochemical evaluation of the serum vitamin A levels of children aged two to six years. A combined 24-hour recall and frequency questionnaire assessed dietary intake. The frequency questionnaire collected information on mothers' knowledge of nutrition, household socioeconomic status and sanitation, and anthropometric measures of children. Results of the dietary intake survey indicated that the target population consumed vitamin A-rich foods infrequently and in small quantities. Serum vitamin A levels for a subsample of 151 children selected at random from Caruaru revealed that 37 percent of the sampled subjects had serum values indicative of vitamin A deficiency. Thus, the dietary

and biochemical data suggested the need to implement a vitamin A intervention program. The data also served as the baseline for evaluating such a program.

LAUNCHING THE PROGRAM



The staff of the Caruaru Secretary of Health organized the campaigns. In particular, the staff was responsible for forming three committees of volunteers, which, in turn, were charged with implementing different aspects of the campaigns. The three committees assumed responsibility for promoting and advertising the campaigns, recruiting volunteer personnel, and securing necessary materials.

The promotion and advertising committee established links with the local community to inform community members about the purposes of the program and to request financial and logistical support. The business community responded by covering the cost of lunch and transportation for the volunteers who staffed the 89 distribution posts and by providing funds for promotional materials such as street banners, T-shirts, and pamphlets. Local businesses also hired a clown who, in the days before the campaigns and on campaign days, circulated in the streets and asked children to visit the distribution posts. The clown also visited the distribution posts on distribution days. Further, the business community engaged the services of a pilot and airplane to drop leaflets throughout the municipality.

The promotion and advertising committee was also successful in securing free radio and television advertising time. The advertisements, which carried a variety of messages, were aired frequently and at appropriately scheduled times. The media demonstrated enthusiasm for the initial campaigns but later evidenced decreasing interest as community response to the campaigns remained high. Nonetheless, the media considered the campaigns newsworthy enough to provide local coverage during the evening news. On several occasions, the campaigns received nationwide media coverage.

The personnel committee recruited volunteers and trained them to register and distribute vitamin A supplements to program participants. The volunteer corps was largely made up of school teachers and school children aged 17 and older.

The materials committee was responsible for securing all necessary supplies for the distribution sessions. The supplies included a sufficient quantity of vitamin A capsules for each distribution post, scissors or blades to nip off the neck of the capsules as needed, and advertising materials used in various stages of campaign development.

VITAMIN A INTERVENTION

The vitamin A intervention program was a two-stage effort. In the first stage, which was considered a therapeutic trial, five distributions of vitamin A supplements were administered to the target population at six-month intervals (September 1985; February and August 1986; and February and September 1987). If a child was suffering from diarrhea or vomiting at the time of the first dose, the mother was instructed to return with the child for a second dose after approximately one week. At the same time, the first-stage intervention called for increased intake of vitamin A-rich foods. To that end, local health centers routinely provided nutrition education to mothers to encourage them to feed their children a balanced diet rich in vitamin A. In addition, a community gardening initiative encouraged Caruaru's citizens to grow vitamin A-rich foods as a means of increasing the availability of such foods, reducing food costs, and increasing vitamin A consumption.

The one specific slogan used in the program stated that the program's aim was not to modify dietary habits but rather to add the habit of consuming vitamin A-rich foods to existing practices. The nutrition education and community gardening initiative was delivered and promoted at meetings with mothers and other members of the community. Nutritionists from the staff of the Secretary of Health, trained at the outset by faculties from the Department of Nutrition, served as teachers at the mothers' meetings.

The second stage of the intervention called for integrating the distribution of vitamin A supplements into Brazil's National Immunization Program. Accordingly, the vitamin A intervention was viewed as an ongoing preventive program that would be reinforced by both nutrition education and related efforts to encourage home production of vitamin A-rich foods. Nutrition education and gardening were not, however, formally integrated into the primary health care activities. Informally, though, post attendants interacted with mothers at the time of vaccination administration.

In support of the intervention, faculty from the Department of Nutrition trained the staff of the Secretary of Health and the health post attendants in the causes and consequences of vitamin A deficiency; how to respond to lay questions; how and when to deliver the supplements (as well as when not to administer the supplements); the importance of vitamin A; the amount of vitamin A needed daily by the target audience; vitamin A food sources; and, when appropriate, metabolism of vitamin A. In fact, open discussions in response to questions posed by health workers, volunteers assigned to the health posts, and political leaders helped secure collaboration from the community despite some early concerns.

USING CREATIVITY TO DELIVER THE MESSAGE



The Caruaru Vitamin A Program did not devise a sophisticated or elaborate communications strategy in support of the vitamin A distribution campaigns. Rather the program simply took advantage of a variety of mass media channels primarily to promote the distribution sessions and secondarily to publicize the importance of vitamin A consumption. For example, a banner promoted the date and place of vitamin A distributions, while the clown motivated children to encourage their parents to take them to health posts for vitamin A administration. The clown also delivered messages about the benefits of vitamin A. Similarly, take-away flyers, television and radio spots, and posters promoted vitamin A distribution and announced the date and time of

distribution sessions. The posters also carried an educational message: "One dose of vitamin A protects your child against blindness." Development of the poster was a collaborative effort that involved nutrition education specialists and the staff of the Secretary of Health.

EVALUATING THE PROGRAM



The main goal of the program's evaluation activities was to detect changes in the vitamin A status of infants and preschool-age children. Staff from the office of the Caruaru Secretary of Health helped select the random sample of children for each evaluation survey. A field team from the Department of Nutrition then took blood samples and anthropometric measures from a sample of children 30 to 45 days after the first four supplement distributions. Biochemical analyses (for hemoglobin, serum total vitamin A, total serum protein, and serum albumin) performed on the blood samples provided the basis for evaluating the intervention program. Each child's anthropometric measurements were taken in accordance with current WHO recommendations. As each child was weighed and measured, the mother responded to a simple questionnaire that defined socioeconomic levels as well as specific knowledge and habits regarding foods and nutrition.

RESULTS

Results indicated that the vitamin A status of the target population improved with the first three rounds of vitamin A distribution and then stabilized. Further, the data demonstrated that the distribution program was successful in attaining and sustaining a high level of coverage, probably close to 100 percent of the target population.

The lack of a control population made it impossible to conclude firmly that the improved vitamin A status of the target population was fully attributable to the intervention program. In any intervention program, factors such as nutrition education and guidance, hygiene, and general health education and the subsequent increased awareness among the population of health matters

can influence the overall health status of the target audience.

On the other hand, however, the Caruaru Vitamin A Program brought important benefits to the target population—and with little outside technical assistance. Further, nearly all program costs were borne by the affected community, although the community first had to be convinced of the program's social benefits before it agreed to support the effort. The estimated cost of the program was US \$1,000 per distribution round, exclusive of the cost of the evaluation. The low cost of the program is an important consideration as cost is often the excuse offered by health professionals and government agencies—in that order—for failing to institute nutrition-related public health programs in developing countries.

It is difficult to determine all the unique elements of the program that are responsible for the Caruaru Vitamin A Program's success, particularly in terms of the population's response. Among the elements not usually found in other programs is the political commitment and support provided by the mayor, the city council, and the business community. Further, the program made an explicit attempt not to publicize the involvement of the Department of Nutrition of the Federal University of Pernambuco for reasons noted earlier. Finally, the in-place health delivery system was obviously capable of handling the distribution of massive doses of vitamin A supplement. The existing health care infrastructure, already well practiced in the

delivery of services through a system of health posts, provided a ready framework for delivering another health care intervention.

EPILOGUE

The Caruaru Vitamin A Program survived a change in city administration in 1988 and, as of 1991, continued to demonstrate its effectiveness. Vitamin A supplements are now available on a year-round basis, reflecting the program's integration into the overall primary health care delivery system. While the new administration continues its interest in vitamin A, the emphasis on education and promotion has declined. In the case of promotion, mothers no longer need to be convinced of the importance of vitamin A. In fact, it is the mothers who complain when vitamin A supplements are out of stock at health posts.

As of December 1991, 12 additional cities in Pernambuco state had initiated their own community-supported vitamin A programs. At that time, the Pernambuco Secretary of Health decided to make the Caruaru program a state initiative. The state-level effort, which now covers 1.5 million children under six years of age, is modeled after the Caruaru Vitamin A Program. Thus, the vitamin A program has been integrated into the primary health care system's vaccination program. Staff members from the office of the Caruaru Secretary of Health were involved in handling the logistics of state-level program implementation in other localities throughout Pernambuco. Nutrition education is not a formal program component of the state-level program.

Dharavi, India

Located in Bombay, Dharavi is the largest slum in Asia. A preliminary prevalence survey undertaken in 1981 indicated a high prevalence of xerophthalmia in seven of the slum's 52 colonies. As a result, in 1982, the Royal Commonwealth Society for the Blind (now called Sight Savers) implemented the Dharavi Xerophthalmia Project through the National Association for the Blind, with funding from Operation Eyesight Universal.

There were several challenges to overcome at the outset of the project in mid-1982. People came from many different parts of India, and their dietary patterns varied. While most people were amenable to modern medicine, several believed in home remedies, soothsayers, and evil spirits. Children were starved when they had measles or chicken pox. Night blindness was believed to be caused by evil spirits or a "curse of God" and was not considered a medical problem. Inadequate vitamin A status ranged from marginal deficiency without clinical signs to severe depletion and advanced and irreversible corneal changes.

PROJECT OBJECTIVE

The project's overall objective was to develop a community-based program to supplement the existing primary health care structure with whatever was necessary to protect high-risk children from blinding malnutrition. The project's specific goals were to improve the health and nutritional status of children under five years of age and women aged 15 to 45; increase mothers' knowledge of child care; reduce xerophthalmia in children under five years of age; reduce malnutrition among children and women primarily through nutrition education; raise women's status through literacy classes and income-generating schemes; train community health workers to make the project more accessible and acceptable; increase community awareness of health

problems, including xerophthalmia, and motivate communities to engage in disease prevention practices such as prevention of blindness and in other health-promoting practices at the personal, family, and community levels; and try to improve environmental health conditions through community participation and self-help efforts.

The project objectives were aimed at

- increasing the availability of dark green leafy vegetables (DGLVs) by motivating vendors to sell DGLVs from door to door;
- increasing family ability to obtain vitamin A-rich foods by helping women earn extra income by sewing, basketmaking, chalkmaking, and beadwork;
- providing nutrition education for mothers and a supplementary feeding program for malnourished children; and
- developing health education approaches that take advantage of channels that motivate needed behavior change.

TARGET AUDIENCE

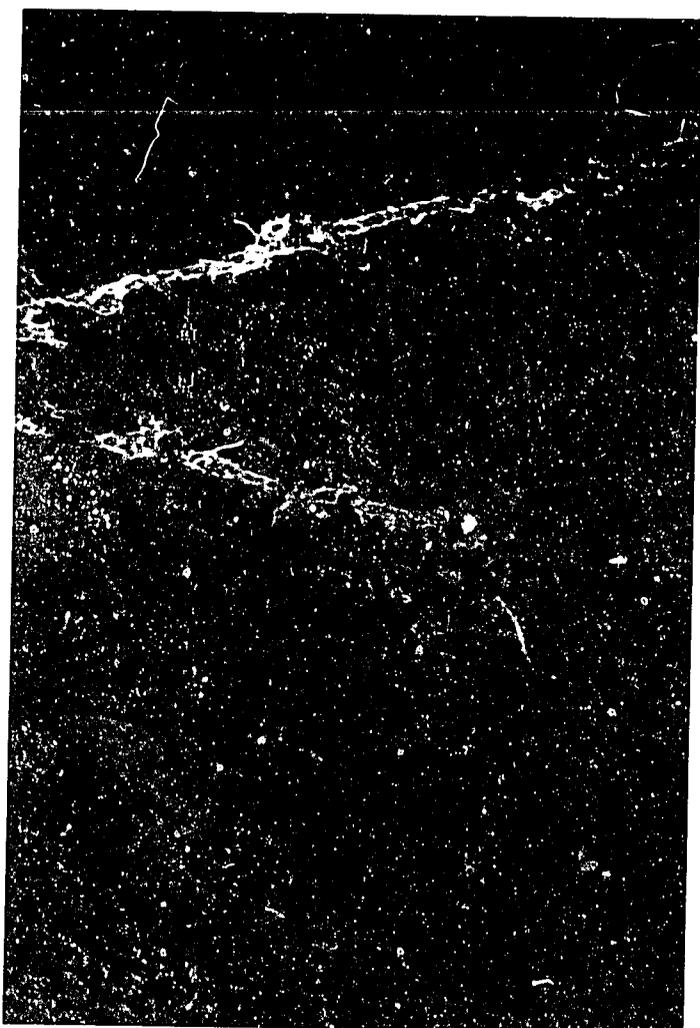
The target audience included mothers living in the seven selected colonies of the Dharavi slums.

PROJECT DURATION

The Dharavi Xerophthalmia Project operated for two-and-one-half years between 1981 and 1984.

PROGRAM INTERVENTIONS AND IMPLEMENTATION

The Dharavi Xerophthalmia Project was organized around five types of intervention—medical, nutritional, health education, horticultural, and social—in support of the project's overall goal of developing a community-based approach to primary health care. That approach called for active community participation in the delivery of interventions. To that end, community leaders



This poster makes use of local traditions to convey project messages.

identified local women who could serve as community health workers (CHWs) and provide a key link between the community and the project team. The project team provided the CHWs with three months of classroom and field training in growth monitoring, follow-up of malnourished children, vitamin A prophylaxis, immunization, periodic deworming, and the delivery of health talks on the importance of breastfeeding, oral rehydration therapy, and weaning. In addition, the project team, comprising a project medical director, full-time medical officer, community organizer, supervisors, and the CHWs, participated in the community's social, cultural, and recreational activities in an effort to establish better rapport with the community.

The medical interventions included eye check-ups, vitamin A prophylaxis, deworming, growth monitoring, follow-up of malnourished children, and administration of immunizations. As for the vitamin A prophylaxis, newborns received 50,000 IU of vitamin A; six-month-olds, 100,000 IU; and children one year old and older, 200,000 IU every six months until age five. Children with clinical eye signs of vitamin A deficiency were treated according to WHO guidelines.

The nutrition intervention focused on the needs of the under-five population and extended to supplementary feeding; follow-up of malnourished children; cooking demonstrations; and talks on breastfeeding, weaning, and how to include DGLVs in children's diets.

The health education intervention followed several innovative approaches and incorporated health messages (noted later) into all the intervention activities. For example, masks and puppets conveyed the project's health messages as did spot announcements at local festivals. In addition, the project offered health education classes for mothers. Messages were also conveyed from child to child and from child to adult.

Horticulture activities aimed at encouraging consumption of DGLVs included the development of a demonstration garden, with the assistance of mothers, at the project office. In addition, CHWs, project supervisors, and community organizers motivated mothers to grow dark green leafy vegetables in pots in their communities. Periodic competitions among mothers sustained their interest in maintaining as many pots as possible. These competitions represented one of the project's most important nutrition education activities. They mirrored the 20 Pot Program initiated in Madras in 1979, which instructed children under 12 years of age in cultivating DGLVs in pots as a means of encouraging daily consumption of dark green leafy vegetables.

Social interventions such as the formation of groups of children, youth, and mothers helped establish rapport with the community and provided an excellent platform for health education. The

creation of children's groups helped identify child volunteers to be trained for a child-to-child program in personal hygiene and protecting food from flies. Children were also instructed in the importance of vitamin A, immunization, oral rehydration therapy, and proper weaning and feeding in preventing malnutrition. The children conveyed health messages to other children, mothers, and grandmothers. The youth groups were established to create an awareness of environmental sanitation and health problems and the role of youth in overcoming these problems. The aim of the mothers' groups was to raise mothers' literacy level and income level. All three types of groups met regularly at various social functions and, over time, provided opportunities for health talks or demonstrations.

Day-to-day implementation of the project was the responsibility of the project staff, community health workers, trained child volunteers, motivated mothers, and local leaders, all of whom became the project's key health educators.

Motivated mothers attended health awareness classes at the urban health center of the Bombay Municipal Corporation in the Dharavi slums once every month for three days for two hours per day. The classes focused on various aspects of child care and were augmented by health talks by community health workers. While few mothers realized the importance of health interventions and control of xerophthalmia, motivated mothers assisted project staff, including the CHWs, in conducting various project activities.

In addition to the above groups, adolescent girls and youth groups received training in the use of audio-visual aids such as slide shows and posters and in the use of role plays and puppet shows in conveying project messages.

USING CREATIVITY TO DELIVER THE MESSAGE



The target audience frequently refused program interventions because of prevalent beliefs and customs. For example, some mothers believed that a god or goddess would be angered if a child were

immunized against measles, that GLVs were bad for a child's health, or that weighing would cast an evil eye on a child's growth. In recognition of local traditions, program planners developed the following messages:

- God will bless children *only* when all interventions are carried out. God has many hands. Each signifies an intervention such as immunization, vitamin A prophylaxis, inclusion of GLVs in the diet, oral rehydration therapy, and deworming.
- Provide children with a balanced diet, including GLVs, to ensure proper growth.
- Periodic weighing makes children healthy.
- Do not starve children during an attack of diarrhea.

Most messages were culture-driven as indeed they must be to achieve the greatest effect.

Messages were delivered by three types of communicators: personal communicators, impersonal communicators, and combined personal-impersonal communicators. Personal communicators included medical and other project staff, community health workers, child volunteers, and trained mothers and local leaders. Impersonal communicators included pamphlets, posters, films, slide shows, spot announcements at local festivals, and songs. Combined personal-impersonal communicators included meetings with homogeneous groups, health exhibitions, and demonstrations with talks, flash cards or flannelgraphs, role plays, puppet shows, and masks. All messages were pretested in small groups.

MONITORING THE PROGRAM



The comprehensive prevalence survey conducted in 1981 provided baseline information on the extent of vitamin A deficiency. In addition, information on mothers' knowledge of child care as well as data on dietary habits, causes of malnutrition, the nutritional status of children, and immunization coverage of children was collected by the CHWs and analyzed by the project supervisors, community organizers, and the medical officer and provided another source of baseline information. During the course of project

implementation, the CHWs maintained records on growth monitoring, vitamin A prophylaxis, deworming, immunization, and children with ocular signs. A repeat prevalence survey indicated that, by January 1984, xerophthalmia was under control.

In view of project results, the Dharavi project remained under surveillance for the next six months. During this period, a nongovernmental organization continued the project's medical and health education activities and maintained the demonstration kitchen garden at the urban health center while the project team continued to guide the work of the CHWs. The involvement of the nongovernmental organization led to good coverage of vitamin A prophylaxis, deworming, and immunization. In fact, during an epidemic of measles, the staff at the urban health center observed a decline in postmeasles complications and no ocular signs attributable to vitamin A deficiency.

FINDINGS

The Dharavi Xerophthalmia Project, along with its follow-up Bombay Slum Project (discussed in the Epilogue), indicates that control of xerophthalmia is not dependent solely on vitamin A prophylaxis. Instead, prophylaxis must be coupled with a primary health care approach that involves active community participation in various program interventions.

Experience gained since completion of the Dharavi project points to the importance of raising women's status through literacy and self-employment schemes that empower mothers both to take greater control of their and their children's lives and to sustain needed healthful practices. Adolescent girls demanded literacy classes in Dharavi, and, once classes began, mothers participated as well. The literacy classes included health talks on child health, child feeding and child rearing practices, and the care of pregnant women. These talks led to increased knowledge among mothers of healthful behaviors, including those specifically related to vitamin A.

After one and one-half years of project implementation, a group of women approached the

project director and requested training in income-generating activities. They said, "We have understood what diet we should give to our children, but our husbands do not buy dark green leafy vegetables. We need our own money to buy." As a result, various income-generating schemes began with initial training in skills needed for tailoring; beadwork; making chalk, candles, baskets, and papads; and fish and vegetable selling. The project and local banks provided small investment loans to the women for these activities. The project also encouraged the women to set up savings accounts in banks.

Through literacy classes and income-generating schemes, the women gained knowledge concerning nutrition and other aspects of child care. They also gained confidence and developed self-reliance in carrying out appropriate practices.

The continuation of the interventions within the community creates increased health awareness and helps change feeding habits. Behavior change, in turn, leads to improved child feeding and child rearing practices and, ultimately, to the prevention of blinding malnutrition in children.

EPILOGUE

The experience gained from the Dharavi Xerophthalmia Project provided the basis for additional vitamin A interventions that emphasize a variety of program strategies. Specifically, Sight Savers has developed three different approaches to India's sustainable Child Development Services projects. The three approaches were structured around folk media, female adult literacy, and observing differences in the approach taken by government staff versus project staff working in urban slums.

At Tirupati (a rural area in south India), folk media not only have entertained the community but have led to both greater health awareness within the community and increased demand for health services. Because folk art closely mirrors a community's social and cultural patterns, its messages are more readily accepted by the masses. Further, local folk artists can continue program

activities after a project formally comes to an end.

Based on experience gained at Dharavi, the project was implemented in other slums and named the Bombay Slum Project. Operated by Operation Eyesight Universal, the Bombay Slum Project was structured around the five interventions that characterized the Dharavi project but also stressed women's literacy classes and trained women in different income-generating schemes. The project helped raise women's status in the community. A women's group managed the programs now completed in Guatam Nagar and Damupada.

A project at Krantinagar has been organized around the interventions that formed the core of the Dharavi project, literacy classes and self-employment schemes for women, and the involvement of Rotary Clubs in an immunization program. At present, the program is sustained by a women's cooperative society. To enhance its status with funding sources, the society is registered with

the local commissioner in charge of cooperative societies in the city of Bombay. Periodic visits by the project team are intended to support the society in its efforts to carry out interventions in a continuously growing slum.

On evaluation, the Bombay Slum Project has not only controlled the problem of xerophthalmia in the under-five population but has resulted in the improved nutritional status of children as well as in a decline in children's morbidity and mortality. It has also led to increased knowledge of child feeding and child rearing practices and raised the status of women in the community. Due to active community participation from the time of project inception (at Dharavi, Guatam Nagar, Damupada, and Krantinagar), the demand for health interventions continues. In realizing the importance of eye care and maternal and child health care, the community is effectively using the available health services.

West Sumatra, Indonesia

In cooperation with the Indonesian Ministry of Health (MOH) at the national, provincial, and local levels, Helen Keller International (HKI) conducted a social marketing project on vitamin A in Pariaman District (population 120,000), West Sumatra, Indonesia. The West Sumatra Vitamin A Social Marketing Project was funded by USAID and received substantial technical assistance from Manoff International. The project was managed by a central steering committee consisting of several MOH departments and HKI and administered at the local level by the Nutrition Directorate.

PROJECT OBJECTIVES

The West Sumatra Vitamin A Social Marketing Project aimed both to increase dietary consumption of vitamin A-rich foods among children under five years of age and pregnant and lactating women and to increase popular demand for the government's vitamin A capsule distribution program. The project was expected to provide the basis for similar efforts throughout Indonesia.

PROJECT DURATION

Project planning began in 1986, formative research took place in 1987, and the educational phase was launched at the end of October 1987. The final evaluation took place in August 1989.

CONDUCTING THE FIELD INVESTIGATION



In the information collection or formative research phase, HKI and the local nutrition department hired students of the local university and the Nutrition Academy. HKI provided necessary training for the students, who subsequently conducted 140 in-depth interviews. (Training these local students contributed to institution building.) The central steering committee hired a market research firm, which, in turn, conducted 10 focus group

discussions among the following potential target groups: mothers of children under five years of age; pregnant and nursing mothers; kader (local health volunteers), traditional midwives, and health center staffs; village chiefs and religious leaders; and mothers and husbands of mothers. Other than 24-hour dietary recalls, the research was qualitative and thereby permitted researchers to probe for attitudes and to encourage respondents to lead the discussion into new areas of inquiry. Information was collected to learn about

- current practices of the target population that could have a bearing on vitamin A status;
- reasons for current practices and resistance points that might prevent adoption of more desirable practices;
- motivations or promises that would promote desirable practices;
- the environment in which change needs to be made, including mothers' economic status, lifestyles, and social status;
- the availability of vitamin A-rich foods—sources, consumption habits, and cooking practices;
- perceptions about eye health and eye problems—specifically, beliefs about night blindness;
- perceptions about vitamin A capsules;
- authority figures and credible sources of advice; and
- the available media for disseminating information.

The formative research revealed the following regarding behavior:

- Women's and children's diets included vegetables, specifically green leafy vegetables (GLVs). Only infants under one year of age consumed no vitamin A or beta carotene other than that contained in breast milk.
- Groups that did consume some GLVs did not consume them in sufficient amounts or frequently

enough to ensure an adequate vitamin A (beta carotene) intake.

- Oil consumption appeared adequate, again with the exception of children under one year of age.

- The major vegetables consumed were GLVs—cassava leaves (daun singkong), spinach (bayam), water spinach (kangkung)—as well as eggplant, stringbeans, and jack-fruit.

Thus, the information collection exercise defined the basic project task: to achieve more frequent and increased consumption of GLVs for children under five years of age and pregnant and lactating women. The research also indicated the need to encourage the introduction of vitamin A-rich foods at five months of age. The following information regarding resistance points emerged:

- Pregnant women feared that increased consumption of food, including GLVs, would cause a child to grow too big in utero and thus create a problem in delivery.

- Lactating women evidenced no major resistance points. In fact, they perceived GLVs as highly desirable foods and believed them to increase breast milk.

- For children under one year of age, mothers voiced strong apprehensions about the digestibility of GLVs, fearing that they cause diarrhea.

- For children one to five years of age, mothers demonstrated similar but less intense fears about digestibility as well as strong perceptions about children's dislike of vegetables.

Clearly, the research showed the need to address and resolve specific resistance points within each target group.

Other undesirable behaviors disclosed by the research were

- delayed initiation of breastfeeding—mothers believed that milk does not come in during the first few days after birth and that a religious official must perform a ceremony on newborns before breastfeeding can start;

- discarding of colostrum—mothers felt that colostrum was not good for children's health and was dirty milk ("susu basi"); and

- premature introduction of supplementary foods—mothers felt that their breast milk was inadequate and that children needed rice to survive.

Thus, a few other perceptions in need of reorientation also surfaced. However, HKI agreed with the Ministry of Health's request to limit project goals to promoting the consumption of vitamin A-rich foods and capsules.

The formative research also revealed the following key points regarding the availability of and perceptions about vitamin A-rich foods:

- Mainly nonanimal foods—primarily vegetables—were available and consumed.

- Food sources were the market, the home garden, and nature (growing wild).

- Vegetables were sautéed, curried in coconut milk, or boiled. Except when boiled, cooked vegetables contained fat.

- Mothers made no attempt to cook vegetables separately for children or to try to make them more appealing.

- In general, perceptions about vegetables were positive. The status of vegetables in relation to other foods, however, was low.

Although GLVs were readily available, mothers seemed to feel that such foods could not be easily found. Therefore, the project needed to address the (false) perceptions about difficult accessibility as well as to devise ways to make vegetables more appealing to children.

As to perceptions about and knowledge of vitamin A and eye health, the formative research disclosed that

- mothers had heard of vitamins but not of vitamin A specifically;

- mothers' perceptions about vitamin A were positive, though unclear;

- fruits and vegetables were considered good sources of vitamins;

- mothers made no connection between vitamins and eye health;

- mothers explained night blindness through traditional beliefs, not as a consequence of dietary deficiencies; and

- mothers considered the importance of eye



A mother and child try a new recipe including dark green leafy vegetables.

health low in relation to the overall health of children.

Based on this information from the target groups, project managers decided that messages should reinforce the positive perception about vitamins without necessarily creating a link to eye health.

Regarding the credibility of authority figures as communicators of messages, the research revealed the following:

- Mothers did not consider community leaders such as the village chief and religious leaders to be sources of relevant information.
- Mothers saw health center doctors and nurse-midwives infrequently but considered them to be the most credible sources of advice on child health and diet.

- Women consulted traditional midwives as substitute doctors but did not consider their advice to be credible.

- Mothers could not identify many kader and were not particularly familiar with their health post activities.

- Except for mothers of mothers, relatives did not exert a strong influence on feeding practices. Husbands were not considered particularly relevant for child feeding issues.

The key credibility figures thus appeared to be health center doctors and nurse-midwives. Grandmothers' support was also needed.

The formative research indicated the following about preferred channels of information dissemination and favored leisure activities:

- Mothers spent their "leisure time" within the

household performing less arduous household work or sleeping. Mothers' regular workloads were particularly heavy.

- Mass media exposure was noticeably low; only radio was a somewhat significant (25 percent coverage) medium.

- All mothers visited the weekly market regularly.

- Health posts staffed by volunteer kader operated irregularly. Use of kader as information disseminators was possible but would require a substantial investment of time and effort.

- Formal village-based community activities were weak, as villages were scattered and houses were located some distance from one another.

Thus, the major access points for communications were radio, the market, and an improved kader system. To gain adequate coverage and depth, the project needed to develop additional, innovative communications links.

PRETESTING THE MATERIALS



The next step after completion of the formative research was to pretest proposed intervention strategies through household trials of the recommended behaviors. The pretesting was intended to determine the reasonableness of expecting to motivate the needed behavior change identified by the formative research, to help find resistance points, and to refine program strategies before undertaking the development of the creative materials.

The basic testing consisted of visiting mothers and asking them to follow the project's nutrition advice for seven days and then revisiting households to understand the mothers' experience. Project staff conducted 70 two-stage interviews, including 24-hour food recalls, both before and after the trial period. For example, project staff delivered the following series of messages to one group of mothers:

- Doctors say that you should add mashed GLVs to children's food.
- Green leafy vegetables are essential to make children strong and healthy.

- Take a handful of leaves, wash and chop them, boil or sauté them, and mash well. Then add them to the children's food.

- Instead of sautéing them, you can also cook them in coconut milk.

- Children can easily digest cooked and mashed GLVs

- Add GLVs to the children's food every day at each feeding.

- Vegetables that grow wild are just as good as purchased ones, so if market vegetables are not available, use the freely growing daun pakis or daun sungkang.

The intervention pretesting yielded many significant lessons.

- The nutrition advice brought about a significant improvement in the consumption of GLVs.

- The basic rationale for inducing mothers to try the new behavior was credible and motivating.

- The resistance point about "child does not like" remained strong; the project would need to undertake a major effort to overcome it.

- Other resistance points were related to the availability of vegetables and the boredom associated with eating GLVs every day.

- The preference for market-bought over wild vegetables was not too strong, so it would not have to be addressed in messages.

DEVELOPING THE COMMUNICATIONS STRATEGY



The research described above provided project planners with the groundwork for designing effective messages and deciding how they could be best transmitted to the target audience segments (pregnant women, lactating women, mothers of infants less than five months of age, mothers of infants five to 12 months of age, mothers of children one to five years of age, and influencers such as mothers-in-law).

The main messages for promoting increased dietary consumption of vitamin A-rich foods emphasized eating vitamin A-rich foods more regularly and in adequate quantities; encouraged the regular addition of vitamin A-rich foods to the

porridge or rice of children under one year of age; suggested daily consumption; specifically promoted increased consumption of kangkung, bayam, and daun singkong; resolved fears of difficult "digestibility" by suggesting thorough cooking and mashing of GLXs; encouraged mothers to control children's diet rather than permit children to decide what to eat; encouraged mothers to make vegetables more appealing by cooking them in coconut milk, incorporating them into snacks, and using them in soups; used the authority figures of the health center doctor and nurse-midwife to deliver nutrition messages; promised that increased consumption of GLXs would make children healthy and strong (not prevent night blindness or eye ailments); enhanced the image of GLXs among all target groups; and used a popular local singer (Elly Kasim) to generate interest and excitement by singing jingles and appearing in many of the project's print materials.

To increase coverage of vitamin A capsules, the communications strategy was aimed at creating demand for the capsules by promising the same benefits associated with consumption of GLXs and by encouraging mothers to make sure children receive a capsule twice a year; instituting a major shift in the distribution strategy from every month to May and November only and designating these months as vitamin A months; and creating excitement about and awareness of distribution months through district head declarations, community meetings, and banners and posters.

USING CREATIVITY TO DELIVER THE MESSAGE



The media strategy included the following:

- using radio for regular spots aimed at the target groups;
- reinforcing the educational activities at the health post by training and providing kader with counseling cards and using posters at the health post; and
- communicating messages in markets through billboards, tapes played by traditional medicine sellers, posters, plastic bags distributed by vegetable sellers, and loudspeaker broadcasts.

MONITORING THE PROGRAM



Two monitoring studies were carried out to assess whether the West Sumatra Vitamin A Social Marketing Project instituted all the planned communications and to determine whether the communications conveyed the project's nutrition messages. The studies identified activities in need of adjustment and led to changes in the communications.

In the first round of capsule distribution, coverage increased from 15 percent to 68 percent, but, because more than one-half of the kader dropped out of the program, program managers became concerned about sustaining the coverage rate. As a result, program managers strengthened regular MOH kader supervision and undertook retraining activities supported by an action-oriented booklet for providers. They also made the district health officer an active member of the project team and reinforced efforts to build intersectoral and community participation.

When medicine sellers proved unreliable in delivering regular broadcasts of the project messages over their loudspeakers, the project arranged for health center vans that used family planning audio systems at all markets to play taped messages, Elly Kasim songs, and jingles. New posters and tin plates were also placed in markets.

Monitoring further showed that the commercial advertising firm engaged to participate in the project encountered difficulties in arranging for the broadcast of radio spots on local government stations at special discounted rates. As a result, the local Ministry of Health staff successfully took over the management of radio communications and pointed to the importance of developing a close working relationship between project representatives and government radio stations. The experience also underscores the role of monitoring to ensure that broadcasts are aired as promised.

EVALUATING THE PROGRAM

The final evaluation found that, in general, the West Sumatra Vitamin A Social Marketing Project achieved some success in reducing attitudinal



resistance to GLV consumption and even realized an increase in the frequency and quantity of GLVs consumed. Impact was limited, however, by the poorer-than-planned performance of some of the available media (particularly kader).

EPILOGUE

The West Sumatra project followed a social marketing model of vitamin A intervention. It developed intervention and message strategies based entirely on attitudes, practices, and behavior. The project transformed successfully tested intervention messages into mass and interpersonal media forms that took advantage of the experience of commercial advertising. The messages embodied creative solutions to overcoming resistance points that posed potential barriers to desired behavior change.

Given the positive project outcomes, in terms of both capsule and food consumption, the project was expanded to cover all of West Sumatra. In addition, the Ministry of Health, with UNICEF support, disseminated the project's GLV poster

nationwide to over 3,600 health centers. Capsule promotion approaches, such as those that emphasize two specific month-long distribution campaigns, were used by the MOH in standardizing and revising its national capsule promotion campaign. Lessons learned in the management and promotion of vitamin A-rich foods have been incorporated into the current, national MOH HKI project, Somavita II: Expanding Vitamin A Supplementation and Nutrition Education for the Prevention and Control of Vitamin A Deficiency.

The West Sumatra project offers several important lessons. First, good management—of training, of capsule distribution, and of ongoing monitoring—is an essential ingredient in project success. Second, vitamin A interventions must rely on the combined use of mass media and interpersonal communications, even though the combination is difficult to achieve effectively. Third, project planners and managers must ensure that the existing health delivery system can and does deliver the promised services—otherwise the vitamin A intervention will fall far short of its goals.

Assaba Region, Mauritania

According to a WHO report, drought and the deterioration of the ecosystem in Mauritania since 1970 have led to widespread malnutrition and vitamin A deficiency among the nation's children. A joint Ministry of Health (MOH) and USAID survey showed that at least 12 percent of Mauritanian children are afflicted by these health problems. Since October 1987, World Vision Relief and Development, Inc., has been involved in a USAID-supported project to encourage increased consumption of vitamin A-rich foods in Assaba Region, Mauritania. World Vision's Vitamin A-Child Survival Project is an expansion of its ongoing Child Survival Project, which, initiated in 1985, provides nutrition and immunization services in Assaba Region. The addition of vitamin A intervention activities represents a logical complement to World Vision's project.

Responsibility for the day-to-day management of the vitamin A intervention rests primarily with World Vision, which is responsible for coordinating the work of three mobile health teams and managing the participation of the existing health delivery system and government and nongovernmental collaborators. Among the several public and private sector organizations involved in the project are Helen Keller International, Education pour la Santé, Diarrheal Disease Control, the Ministry of Agriculture, the Peace Corps, Manoff International, the Asian Vegetable Research and Development Center-Niger, and the Regional Director of Health (Kiffa).

Project managers have faced several challenges. First, the harsh climate (frequent sandstorms, hot winds, low rainfall) and lack of water for drinking and gardening have reduced productive work time and adversely affected home vegetable gardening. Second, the nomadic way of life has made follow-up of the target population difficult. Third, the high rate of illiteracy has limited

the opportunity to recruit female trainers. Fourth, the inadequate number of national staff trained in health and agriculture has limited the involvement of local technical resources.

PROJECT OBJECTIVE

The main objective of the Vitamin A-Child Survival Project is to lower vitamin A-related mortality and morbidity among children aged five years and younger by promoting home gardens planted with vitamin A-rich vegetables and by distributing vitamin A capsules in conjunction with the ongoing Child Survival Project.

PROJECT DURATION

The Vitamin A-Child Survival Project was launched in 1988 and continues in 1992 after a one-year interruption associated with the Persian Gulf War.

TARGET AUDIENCE

At the outset, the vitamin A intervention was targeted to children under five years of age. When, however, the baseline survey disclosed that a high proportion of children over five years of age complained of night blindness, the target population was expanded to children 10 years of age and younger. In addition, adults with night blindness were included in the target group.

APPROACH

The Vitamin A-Child Survival Project integrates gardening, vegetable preparation and storage, weaning education, weaning food demonstrations, and vitamin A capsule distribution into an ongoing effort designed to promote immunization, oral rehydration therapy, and growth monitoring. However, the immunization effort has been more widespread than any of the project's other health interventions.

Three mobile teams visit the target villages

monthly to carry out project activities, incorporating those activities into the existing health care delivery system whenever possible. Project activities have been organized into a baseline survey, pilot gardens, nutrition and health education, distribution of vitamin A capsules, seminars for World Vision staff and local health and government personnel, the development of social marketing materials, and the delivery of health services by the mobile teams.

CONDUCTING THE FIELD INVESTIGATION



During the first months of the project, project staff (two nutritionists, two nurses, and four auxiliaries) carried out a baseline survey in two districts of the Assaba Region. It revealed that the major food sources of vitamin A were milk and butter as opposed to vegetable sources. Even though 80 percent of the region's population was engaged in agriculture (cereal rather than vegetable production), vegetable cultivation was not significant as the population was

not aware of the importance of vegetables in the diet. Further, the first-day drink offered to newborns consisted mainly of sugar and water; mothers typically discarded their vitamin A-rich colostrum. In addition, mothers did not feed their children appropriate weaning foods.

Additional evaluation surveys conducted by project staff indicated that the region's mortality rate was 192/1,000 and that major health problems included diarrhea, fever, and a high rate of malnutrition. Immunization coverage was about 50 percent. Village chiefs voiced the need for agricultural assistance, additional wells, and the construction of dams for collecting water.

LAUNCHING THE PROGRAM

Pilot Gardens

During the first six months of the project, project staff selected garden sites in eight villages for the introduction of vegetables, including carrots, green leafy vegetables, tomatoes, and lettuce. The



Villagers learn gardening techniques.



availability of water was one criterion for site selection. An agricultural worker seconded to the project trained villagers in agricultural techniques. Existing agricultural cooperatives received assistance in the form of seeds, tools, and instruction. After the harvest, food demonstrations offered by project staff introduced the new vegetables into the local diet. Surplus vegetables from the harvest were preserved by sun-drying for consumption during the dry season.

Nutrition and Health Education

During the project's first six months, home gardening and health education activities were offered in combination primarily to mothers in the eight villages with demonstration gardens; during the project's second six months, which were not suitable for gardening, the project offered health education activities and gardening training to 12 additional villages (20 villages in total).

More specifically, the target group for health education was mothers and their children under three years of age. About 2,900 mothers attended 70 training sessions over the project's first year. The sessions focused on weaning food demonstrations, monthly growth monitoring (children were weighed initially by project staff but now are weighed by mothers trained as health monitors), oral rehydration therapy, and hygiene. The hygiene issues related to food storage, the importance of keeping the family compound clean and free of dirt from animals and garbage, and the concept of handwashing after using the toilet and before eating. Specific discussion points included diarrhea prevention and treatment, the importance of immunization, and vitamin A deficiency prevention. Methods used to transmit health messages at the village level included role playing, drama, and such social marketing materials as slides and locally composed songs (discussed in more detail later).

Distribution of Vitamin A Capsules

As a short-term intervention, the project is systematically distributing vitamin A capsules throughout Assaba Region. The groups targeted for capsules are children between six months and six

years, children between six and 10 years, and mothers after delivery. MOH policy calls for 200,000 IU doses of vitamin A. Capsule distribution points include schools, fixed and mobile vaccination sites, health centers, and the regional hospital's maternity ward. The mobile teams are responsible for both collecting information on capsule distribution from each distribution point during their routine visits and providing new stocks of vitamin A capsules.

Seminars for World Vision Staff and Local Health and Development Personnel

During the project's first year, World Vision sponsored two three-day seminars for MOH personnel, agricultural workers, national World Vision staff, and representatives of the Ministries of Education and Agriculture. Ophthalmologists and senior MOH staff served as resource persons. Each seminar was organized around a special event such as the mobilization of 1,500 people to view a video on the importance of vitamin A in the daily diet.

In addition, during the growing season, five village volunteers were selected by the community to be trained in gardening techniques and in how to train others in gardening. The volunteers from each village worked closely with the agricultural extension agent during garden production.

Women who demonstrated an interest in health education during the mobile team's visit to the villages were selected by community members to serve as animators during health education sessions. Animators mobilize and organize villages for health education and, after undergoing on-the-job training provided by project staff, carry out health education activities. The training culminates in a two-day formal training session that covers health messages related to weaning, vaccination, hygiene, and the importance of vitamin A-rich vegetables. World Vision staff prepared an accompanying training manual for use by educators and trainers in training village women.

Mobile Teams and Fixed Vaccination Sites

The three mobile teams cover three of Assaba Region's five districts. In addition, there are four fixed vaccination sites. The existing Child Survival

Project vaccinates all children under five years of age against six childhood diseases, all mothers of child-bearing age (15 to 45 years) against tetanus, and the entire population against yellow fever. The various vitamin A interventions, including vitamin A capsule distribution, have been integrated into the ongoing Child Survival Project.

USING CREATIVITY TO DELIVER THE MESSAGE



With the assistance of a Manoff International consultant, the project undertook the systematic development of creative materials in support of its objectives. The consultant conceptualized the materials development process as a series of stages that, taken together, would lead to achievement of the overall project objective. Those stages called for stimulating awareness and interest; encouraging trial of a new behavior; encouraging the adoption of a new practice; providing intensive follow-up; and evaluation. The topics covered by the creative materials were selected in consideration of the natural cycle of the year and planned project activities. They include a description of available services, oral rehydration therapy and diarrhea, hygiene, vitamin A-rich foods from the garden, and gardening help.

The media selected for use in the project are slide shows, songs, audio cassettes, demonstrations, radio, booklets, and lesson plans. Slide shows are an attractive and effective visual aid, particularly when screened outdoors at night. The project planned four slide shows on services provided by the health centers and mobile units, oral rehydration therapy and diarrhea, hygiene, and green and yellow vegetables.

Development of the slide shows in particular followed a prescribed set of steps. These steps were collection of baseline information, analysis, message design, media selection, material design, pretesting and feedback, production, and use and distribution. The baseline information provided information on the audience in terms of language, culture, and special interests. The analysis focused on the subject matter of the slide shows and how the audience

relates to it. Given audience attributes, it was decided that message design would be straightforward and that messages would be descriptive. The slide show format represented an appropriate medium for an audience that socializes during evening hours.

Because of the importance of keeping the presentation of information uniform, the slide show sound tracks were taped and the slides converted to film strips, thereby preventing the loss or incorrect sequencing of slides while ensuring ease of transport. Lesson plans and questions for discussion to accompany each slide show were developed to help ensure consistency in the lessons organized around the slide shows.

Pretesting indicated interest in the programs but revealed that the shows were paced too rapidly and that some women were concerned that clinics were administering birth control vaccinations. With the work completed on the substance of the slide shows, attention turned to the logistics of production and distribution.

With respect to the other media used in the project, songs are useful in promoting the goals of the project. They can be played when the mobile team enters a village, used in slide show sound tracks, broadcast on the radio, or sung during lessons as part of a group sing-along. Pretesting revealed that songs composed in the villages were more readily accepted than songs developed by a griot (i.e., a traditional musician-poet).

Audio cassette recordings of songs help ensure that project messages remain consistent over the life of the project. They also enable village health workers to reinforce messages.

Demonstrations are essential in that they are motivational and create enthusiasm. Further, people learn more readily by seeing and doing rather than by being instructed in what to do. In this project, the demonstration format lends itself to, for example, garden construction and cultivation and mixing oral rehydration therapy solution.

In December 1987, the project undertook a small knowledge, attitudes, and practices survey to assess the best way of using radio as a medium.

The results suggested that radio should be limited to only a few functions, including dramas and educational plays to be scripted from the slide shows and songs for use in the brief intervals between programs.

Printed booklets, to be made available to health workers, will cover all aspects of the Vitamin A-Child Survival Project in somewhat more depth than the slide shows but will follow the outline of the slide shows.

LESSONS LEARNED

Some of the significant lessons learned in the project's first year included the following:

- World Vision initiated the Vitamin A-Child Survival Project with the assistance of expatriate staff. The expatriate staff subsequently trained and was replaced by a national staff.
- After the national staff was accorded more responsibility, staff members became more

committed to the project and developed several effective and creative ideas.

- Village members were willing to include new vegetables in their diet and to invest in and contribute to the production of vegetables.
- Slides and locally composed songs were highly effective in transmitting messages to village members.
- Because water is scarce, the effectiveness of the health education program was limited. An increased water supply is a priority.
- Because they are respected in the villages, school teachers play a vital role in positively influencing attitudes and habits relating to good health. Further, they distribute vitamin A capsules to school children aged six to 10 years.
- In addition to the baseline survey, a clinical study should have been conducted to determine the initial vitamin A status of the target area.

Nepal

Nepal is one of the least developed countries in the world. In 1975, USAID and the Centers for Disease Control (of the United States) estimated that 85 percent of Nepalese children were undernourished and that 5 percent were severely malnourished. A more recent Nepalese study confirmed the earlier findings. Not surprisingly, vitamin A deficiency is a major public health problem. Bitot's spots are present in more than 2 percent of the children in Nepal's flat-land region, while the risk of keratomalacia and corneal ulceration extends into the nation's hill region.

In 1988, in recognition of the magnitude of the vitamin A deficiency problem, Nepal Netra Jyoti Sangh (NNJS)—a nongovernmental organization charged by the Ministry of Health with responsibility for issues relating to blindness—launched the Vitamin A Child Survival Project (VACSP). The VACSP was an operational intervention study intended to test the feasibility and cost effectiveness of different public health strategies aimed at combating vitamin A deficiency in Nepal. The VACSP received financial support and donated supplies as well as technical and manpower assistance from USAID, the University of Michigan, UNICEF, the Joint Nutrition Support Programme, Disarmo e Sviluppo (an Italian nongovernmental organization), F. Hoffmann-La Roche, Ltd Task Force SIGHT AND LIFE, the European Economic Community (EEC), and NNJS. Financial support exceeded US \$1.7 million.

PROJECT OBJECTIVE

The main objective of the VACSP was to compare three vitamin A interventions in terms of

- cost;
- participation of mothers;
- changes in children's health as indicated by

Bitot's spots rates, corneal eye signs, stunting, wasting, and weight; and

- changes in maternal feeding and disease management practices.

PROJECT DURATION

The VACSP was initiated in 1989 and has continued into 1992. It is too soon to say whether the program will serve as a model for other countries.

TARGET POPULATION

The target population included children aged six months to 10 years residing in three groups of 25 villages. The children in the three groups received different interventions. A fourth group of children aged six months to 10 years in 25 additional villages served as the control population. In the case of the intervention villages, mothers were included in the target population only in the villages that received the nutrition education intervention (discussed later).

The study was implemented in 100 randomly selected villages within seven districts. Three of the districts were located in the hill region, and the other four were located in the flat-land region where the greatest prevalence of vitamin A deficiency and nutritional blindness had been detected through earlier blindness and xerophthalmia surveys conducted by, respectively, NNJS with the SEVA Foundation in 1980 and Tribhuvan University (University of Kathmandu) in 1981.

APPROACH

The overall program approach called for developing a replicable model strategy for integrating the vitamin A intervention into the delivery of routine primary health care at the village level. Central to the model was close collaboration between NNJS and both district public health offices and health posts. The district health officers' endorsement of the program was critical to the long-term viability of

the vitamin A intervention at the local level.

The program was organized around the following interventions:

- *Capsule Distribution.* Village health workers distributed megadoses of vitamin A to children at a central location. A limited number of posters publicized the day and place of the distribution and informed mothers that they should bring their children to receive the supplement.

- *Primary Health Care (PHC).* Children in this group received worm medicine (mebendazole) and vitamin A supplements every six months from community health volunteers (CHVs), who achieved 81 percent coverage. The volunteers also provided treatment for diarrhea and respiratory infections and promoted immunization. The VACSP primarily augmented the supply of medications available from the CHVs and thereby enhanced the PHC effort. Publicity for these health services was generally by word of mouth.

- *Nutrition Education.* Children in this group received the benefits of primary health care and nutrition education. Only children with night blindness and other ocular signs of vitamin A deficiency received vitamin A capsules, accounting for 3 percent coverage. Educational materials developed for mothers in this group emphasized seven messages related to nutrition and child health.

- *Control.* Children in the control group received treatment for worms, diarrhea, and xerophthalmia if they had symptoms of these illnesses at the time of the baseline survey (discussed later) or two follow-up surveys.

Of the hypotheses that guided implementation of the VACSP, the following specifically focused on nutrition education: Children participating in the nutrition education intervention whose mothers have understood the messages and altered their children's feeding behavior will experience a significant reduction in Bitot's spots and sustain a greater improvement in nutritional status than children of mothers who do not change their children's feeding behavior.

All project activities were carried out by about

320 CHVs, the same CHVs who had already been recruited by the Ministry of Health to assist in the implementation of family and community health programs. CHVs assigned to the villages that participated in the VACSP received additional training and ample supplies.

CONDUCTING THE FIELD INVESTIGATION



The baseline data collected by five field evaluation teams between May and September 1989 pointed to the need for including adult literacy classes as part of the nutrition education intervention. A related issue disclosed by the baseline survey indicated that creative materials developed in support of the intervention had to be changed to be more easily understood by illiterate people. As a result, the educational messages and materials were simplified to increase comprehension by the target audience and to achieve maximum audience coverage. Other baseline data revealed that more than 60 percent of intervention group households had kitchen gardens. Therefore, the VACSP encouraged gardening by providing seeds but did not otherwise aggressively promote kitchen gardens.

Other baseline information included the following findings:

- Fruits and vegetables that grow in the wild, many of which are rich in vitamin A, were major sources of food for the target population.
- Taboos prevented mothers from serving green leafy vegetables during illness; traditional beliefs held that fruits and vegetables eaten during illness would make children sicker.
- Many mothers did not feed their infants colostrum, and some delayed breastfeeding for as long as four days after giving birth.

DEVELOPING THE COMMUNICATIONS STRATEGY



In February 1988, the University of Michigan staff conducted a preliminary food consumption survey whose results guided the original development of messages for the nutrition education intervention

group. After completion of the 1989 baseline survey, however, the university team revised the messages and refined the project materials. Considered crucial to improving children's health status, the messages focused on

- consumption of vitamin A-rich foods;
- consumption of vitamin A-rich foods growing wild in the forest;
- oral rehydration treatment during bouts of diarrhea;
- feeding of liquids and appropriate vitamin A-rich foods during bouts of diarrhea;
- nutrition for pregnant women;
- the importance of breastfeeding, emphasizing the feeding of colostrum;
- appropriate weaning foods and the importance of growth monitoring during childhood;
- special diets for children during and after illness; and
- identifying warning signs of vitamin A deficiency.

In the project's second year, an additional message was developed to promote the importance of adding fat during the preparation of vegetables.

USING CREATIVITY TO DELIVER THE MESSAGE



Each message was conveyed by flipchart and poster. Further, all the messages were incorporated into the manual that was developed by VACSP staff for the nutrition education intervention. (Manuals were produced for each of the three intervention groups to highlight general information relevant to the particular intervention, but the messages outlined above were included only in the nutrition education manual.)

As for choice of media, posters and charts proved most useful and practical. Radio coverage, for example, extended to only 1 percent of the population of most villages. Further, when videos were screened for villagers, the men sat in front of the women and thus made the videos less practical for use with the mothers. As a result, VACSP staff altered their approach during the project's first year and developed a newsletter to convey information originally planned for the videos. Specifically, the

newsletters were directed to mothers as a strategy to improve their children's health status.

The community health volunteers assumed responsibility for distributing the newsletters to women in the community and to teachers for dissemination in the women's literacy classes. Adult literacy classes were an ongoing program of the Ministry of Education; the VACSP used the opportunity presented by the classes to develop mothers' capacity to receive and retain nutrition messages.

With the increase in literacy in the project's second year, the newsletters provided an excellent opportunity for disseminating information about the project and its activities. Based on the success of the newsletter, shorter, monthly newsletters were developed for the capsule distribution and primary health care intervention groups. These newsletters did not contain the nutrition messages but simply provided project news relevant to the specific intervention group. Overall, the newsletters received a favorable response from project participants.

PRETESTING THE MATERIALS



The posters and charts were pretested at the beginning of the project, while the project manuals were pretested during the training of CHVs and underwent modification after testing in each village. The posters, which carried short slogans in Nepali and were accompanied by figures, and the flipcharts required only minor revisions. The most dramatic revisions were made to the manuals between the VACSP's first and second years, particularly to reduce the number of words and increase the number of pictures. The newsletters were not pretested and instead were revised on an issue-by-issue basis in response to the concerns raised by readers.

LAUNCHING THE PROGRAM

A variety of activities supported the three VACSP interventions noted earlier. For example, CHVs, who played a central role in carrying out program activities, invited mothers in the nutrition education

villages to attend regular meetings. Though largely reluctant to participate, most mothers eventually responded to frequent CHV contact and began to attend the meetings. The mothers learned that they could reduce the risk of blindness and ensure their children's overall health by adopting the practices promoted in the seven nutrition messages.



In the nutrition education intervention villages, literate mothers—a small percent of all mothers—understood the nutrition messages and integrated the desired behaviors into their daily practices. Given the high rate of female illiteracy in the nutrition education villages, it was not surprising that the CHVs experienced difficulty in reading medicine dosages, recording mothers' names, and using the manuals. Some mothers, in turn, questioned the legitimacy of the CHVs because of their illiteracy. As a result, the VACSP took advantage of the Ministry of Education's literacy materials and initiated a female literacy program that drew the participation of more than 2,000 mothers and about 120 CHVs. The classes were popular, in part because they offered these Nepalese women their only opportunity to meet. The evening class schedule did not seem to deter the women from seeking daily instruction. In fact, the women were aware of the availability of such classes offered by the Ministry of Education in other villages. After six months, nearly one-half of the participants were literate and eager to learn more.

During the literacy classes, the CHVs distributed seeds to the mothers interested in continued kitchen gardening. UNICEF's purchase of seeds for distribution to the mothers was a major contribution to program success.

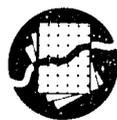
Rapid improvements in children's health as a result of deworming and treatment of diarrhea and acute respiratory infections vested the CHVs with credibility in the eyes of mothers. Shortly thereafter, mothers grew competent in observing night blindness in their children and reporting their observations to health workers. Indeed, the project was successful in developing the capacity of mothers to identify and seek treatment for night

blindness and, in particular, to turn to CHVs for the delivery of treatment.

Over the project's two-year duration, the role of the CHVs underwent an evolution. Whereas VACSP staff tended to oversee and supervise the work of the CHVs in the program's first year, project personnel provided much reduced supervision in the second year. The CHVs had learned how to procure ample quantities of medications and how to address problems. For the CHVs, the motivation to commit themselves to the program came from several sources. Although the volunteers were designated by the public health office and not paid, the project CHVs had sufficient medication and could administer it; thus, they were inspired to work. They could look forward to yearly refresher courses as an incentive to continue working. The CHVs also received a certificate attesting to their completion of training. The certificate provided a measure of legitimacy and credibility with the larger community. Newsletters and other project activities helped the CHVs understand the importance of their contribution to the health of children in their village. As part of a larger program, they felt less isolated.

Training for the CHVs was made available by the district public health office. The VACSP staff provided training in vitamin A, while health post staff and vaccinators delivered training in growth monitoring and immunization. The CHVs received all necessary materials on the VACSP during the training sessions.

MONITORING THE PROGRAM



Three rounds of monitoring were aimed at assessing the coverage of vitamin A capsule distribution.

RESULTS AND FINDINGS

The VACSP may be considered a success in terms of clinical measures of vitamin A deficiency and desired behavior change.

The project materials point to the following results:

- After the first year of the VACSP, a higher percentage of mothers in the three target groups



A project poster conveys the benefits of vitamin A-rich foods during pregnancy. A flipchart reminds mothers to feed their children during episodes of diarrhea.

compared to the control group believed that vitamin A was important to their children's health. Target group mothers fed their children greater quantities of dark green leafy vegetables and wild greens and herbs and evidenced increased awareness of night blindness. Even capsule distribution helped to increase awareness as mothers began to talk among themselves and learn from one another's experiences.

- The rate of Bitot's spots declined in all of the villages, although only a slight decrease occurred in villages where symptomatic screening took place. This demonstrates the effectiveness of combined

nutrition education and primary health care delivery even without the distribution of megadose vitamin A capsules.

- When mothers—particularly literate mothers—knew which foods were rich in vitamin A, their children exhibited reduced risk for all the measures of children's health status.

- Costs for the project intervention ranged along a continuum. The least costly intervention was capsule distribution (US \$0.10 to US \$0.15 per year per beneficiary), while the most expensive intervention was nutrition education with literacy training (less than US \$1.20 per beneficiary per year). These costs include medications, training, and supervision. The VACSP demonstrated that all interventions were feasible and affordable.

The project demonstrates several findings, including the following:

- Nutrition education can yield results after only one year of intervention, thus confirming the hypothesis that nutrition education can produce change in a short time.

- Female literacy seems to have a primary role in preventing xerophthalmia. For the area of Nepal included in the study, the risk of children developing xerophthalmia is negligible (0.01 percent) when mothers are literate. By contrast, almost 2 percent of children suffer from xerophthalmia when mothers are illiterate.

- Several "ingredients" contributed to project success, including regular mothers' meetings, primary health care activities, female adult literacy classes, development of appropriate pictorial messages, and the positive relationship that was forged between mothers and the female CHVs at the local level. Coordination of all these activities by the VACSP staff ensured that all activities were mutually reinforcing. In this way, local communities were particularly receptive to the full nutrition package and were able to attend to messages and to participate in project activities.

- Intersectoral cooperation also contributed positively to project outcomes. To further project aims, the national government supported project activities. The Ministry of Education provided the

materials needed for the adult literacy classes. The Ministry of Agriculture developed seeds. The government of Nepal is currently developing a national strategy for control of vitamin A deficiency.

- Project experience suggests that nutrition and primary health education should be initiated after adult literacy programs have concluded; similarly, messages about the value of feeding vitamin A-rich foods to children should be disseminated after seed distribution efforts have concluded.

EPILOGUE

It is highly likely that the VACSP will continue to provide the three types of intervention delivered to date. Funds from the EEC will cover implementation for another two years and enable the VACSP to provide nutrition education to the control group villages. Further, the budget will permit project staff to undertake xerophthalmia assessments in three additional districts and thus expand the base of

information on xerophthalmia for each of the next two years. The University of Michigan will provide technical assistance for these assessments. Districts that do not evidence a high prevalence of xerophthalmia may not need resources from the national vitamin A program.

At this juncture, it appears that the VACSP was a success. Despite an Indian fuel embargo during the project's first year and a second-year revolution that led to a change of government, the program maintained its local focus and was largely insulated against external events. Nonetheless, census figures significantly underestimated the target population in the project villages. As a result, the program budget was strained, and the program was hard pressed to serve the residents of nontarget villages who requested services. Aside from budget constraints, the program had to confront the challenges that typically pose problems in Nepal: hostile terrain, difficulty in communicating with district offices, and turnover of district-level Ministry of Health staff.

Northeast Thailand

The Institute of Nutrition at Mahidol University conducted a pilot project entitled Social Marketing of Vitamin A Rich Foods (SM VAF). Funded entirely by USAID in the amount of US \$282,695, the project tested the feasibility of creating a cost-effective, long-term program of community control and prevention of vitamin A deficiency among preschool- and school-age children and pregnant and lactating women. The project site was Kanthararom district, Srisaket province, Northeast Thailand. The district embraces 134 villages and a population estimated at 100,000. Thailand's North and Northeast regions are high-risk areas for vitamin A deficiency. In these regions, 20 percent of preschool- and school-age children exhibit subclinical vitamin A deficiency. Trakon Phutphon (Ubon Ratchatani province), located 200 kilometers from the intervention area and largely inaccessible to the project area by road or rail, was the control site.

The project was a full-time effort carried out by the Institute of Nutrition's research team (hereafter termed the project team). The project team consisted of a project manager, a team coordinator, a media communications team, and an action program team. While no information is available on the level of effort or person-hours devoted to the project, the cost of the project's education programs was calculated at US \$0.85 per community member.

The SM VAF project was organized around three guiding strategies. First, the project created a "nutrition information society" within local communities. Each society gave community members a firm knowledge base for their current behaviors and proposed new behaviors. Second, the project developed and delivered meaningful messages about vitamin A-rich foods that created a positive image for such foods. Third, the project linked the messages to meaningful community

action programs in which community members could participate.

Implementation of the strategies can be described as a cyclical process of communications (to assess, analyze, and take action); collaboration (to increase social mobilization and communications participation); and concentration (to make the project relevant to the community's felt needs that extended beyond nutrition concerns). At every stage of the SM VAF project, the cyclical process was fueled by information that enabled community members and development agents to develop an improved understanding of their nutritional status. As a result, villagers were empowered to assess their nutritional status and to take action by forging positive working relationships with local officials.

PROJECT OBJECTIVES

Two objectives guided the SM/VAF project. The first objective comprised three parts: to undertake a nutrition education program shaped by social marketing techniques to improve knowledge, attitudes, and practices regarding dietary intake of vitamin A; to increase actual dietary intake of vitamin A; and to enhance the vitamin A status of preschool- and school-age children and pregnant and lactating women. The second objective was to develop a model for improving vitamin A status through nutrition education. A related objective was to make project activities as much a part of the local health delivery system as possible and to institutionalize the education activities by the time of project completion.

PROJECT DURATION

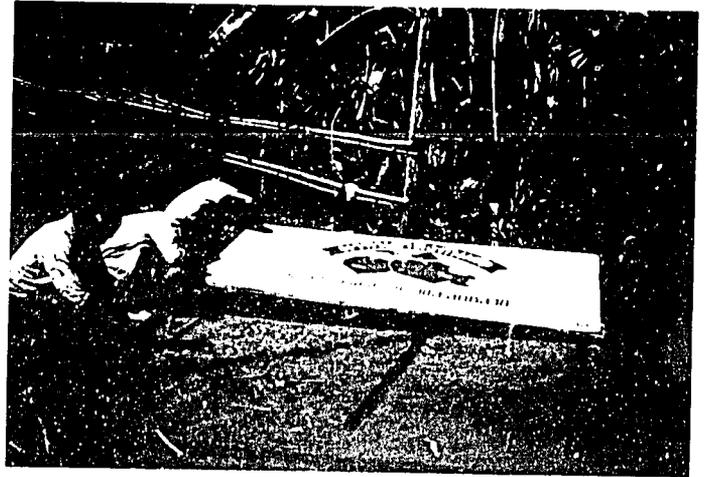
The overall SM VAF project operated from October 1988 to October 1991, while the nutrition education component ran from approximately May 1989 through March 1991.

APPROACH

The SM/VAF pilot project adopted an approach that called for a nutrition communications effort built around social marketing techniques and supported by community development processes. The SM/VAF team recognized that effective communications is a necessary first step in bringing about changes in nutrition-related practices. Yet, the team understood that realization of desired behavior changes would require an increase in the demand for and use of products and services essential for improving the nutritional status of the target population.

The project team turned to social marketing because of its “people-based” orientation. That orientation places strong emphasis on people’s needs and wants. In fact, the “4 P” framework that is the backbone of social marketing campaigns guided the selection of *Products* (ivy gourds, home gardens, and nutrition ideas) available at an acceptable *Price*. District and subdistrict development personnel made the ivy gourd plant and related nutrition and agriculture information widely available at convenient *Places*. The involvement of district and subdistrict officials and community members in the design and implementation of communications strategies was an important element in the SM/VAF’s *Promotion* of the ivy gourd, home gardening, and the benefits of both.

To reinforce the SM/VAF project’s social marketing approach, the project team devised an integrated, two-way community development process intended for express application in the SM/VAF project. Called Participatory Action for Integrated Nutrition Education (PAINE), the process involved community members, personnel from various social development sectors, and the project team as project collaborators. In accordance with PAINE, local officials and community leaders assumed responsibility for community program development and implementation, while the project team developed communications materials. In this scheme, no level—top, intermediate, or bottom—exercised strict control over any other. Rather, the intent was to help local officials and community



Community members help construct and erect project billboards at key district locations.

leaders develop actions that were meaningful to them and that would fit within the existing local context (rather than being imposed by the project).

CONDUCTING THE FIELD INVESTIGATION



Formative information collection provided the basis for developing educational programs and materials designed to meet several specific behavioral objectives. A two-stage information collection effort called for a preliminary epidemiological investigation into vitamin A deficiency within the target population and an anthropological investigation into the behavioral factors affecting vitamin A-rich food consumption. The epidemiological study indicated the prevalence of vitamin A deficiency as well as the types of available vitamin A-rich foods. Results of the anthropological study pointed to the following as areas affecting general nutrition:

- family economics;
- inappropriate traditional beliefs about food, pregnancy, and child development;
- child caretaking practices;
- incorrect or lack of nutritional awareness;
- personal preferences; and
- the role of family members in influencing nutrition decisions.

Further, even though they were concerned that their children often suffered from the consequences

of vitamin A deficiency, mothers did not believe that inadequate intake of vitamin A-rich foods could cause childhood blindness. Therefore, the project focused on reducing illness rather than on preventing blindness per se.

The formative information gathering permitted project staff to break the target audience into specific segments structured around three organizational levels (individual family, community, and extracommunity) and three types of support (target group caretaking, interpersonal influence, and program support). The primary audience segment consisted of primary child caretakers (mothers, grandmothers, and unmarried sisters) who are largely responsible for daily child care and, in Northeast Thailand, for the care and food habits of pregnant and lactating women.

The second audience segment comprised community members such as teachers, volunteer health workers, and community leaders who could teach, support, and reinforce through education the messages conveyed to the primary audience segment. The third audience segment included provincial to subdistrict health, education, agriculture, and rural development personnel; local mass media representatives; and university researchers. Members of the third audience segment served as valuable information resources and participated in the development of the vitamin A intervention.

DEVELOPING THE COMMUNICATIONS STRATEGY



Project personnel did not develop an overall, detailed program plan before launching the SM/VAE effort. Rather, they conducted a series of planning meetings throughout the term of the project, from the regional to the subdistrict level. The meetings permitted collaborators from different community and institutional sectors to define program strategies and objectives. At every stage, program organizers explicitly attempted to decentralize project planning, implementation, and monitoring. Their efforts were aimed at promoting local initiative and responsibility to ensure district- and community-level ownership

of the project and sustainability of the desired behavior.

In line with this approach, the project team convened an "expert panel" of local leaders, representatives of community organizations, district health and agriculture officials, university researchers, and advertising specialists. Using the formative information, the panel helped identify several issues that could lead to the development of an effective intervention strategy. For example, the panel defined the primary requirements of the "product" that would be promoted by the education campaign as

- high in vitamin A content;
- familiar to villagers as an acceptable food source;
- feasible for integration into the routine household diet; and
- easily cultivated or gathered under existing conditions.

Not only did the ivy gourd fulfill these requirements, it grows wild and is readily available in almost every rural Thai community.

District and subdistrict development personnel and community leaders as well as the project team devised the education campaign aimed at promoting the ivy gourd. They stressed practical, community-based implementation and decided that home gardening would be the campaign's chief focus. The SM/VAE project team provided general guidelines for the project and elicited from the collaborators specific suggestions for project activities and implementation strategies.

Early on, project staff recognized the importance of creating a promotional message that would establish a common theme for all activities and set the education campaign's overall tone. The message needed to possess an emotional yet rational appeal while reflecting the values of family-centered rural life. Accordingly, the project team believed that those best equipped to develop the message were those intended to receive the message. Therefore, members of local and district organizations voluntarily entered an informal slogan-writing competition. The winning message (as judged by

the project's professional marketing consultants)—“A Mother Loves Her Child”—appeared on all home gardening and nutrition education materials. The major symbol was an ivy gourd cartoon character, an image developed for two specific reasons. First, a cartoon, it was believed, would have great appeal for Thai children and adults. Second, adults' association of a cartoon with children would help reinforce the link between the project and children's sound health and nutrition.

In addition to the primary message, the SM VAF project developed specific messages linked to the project's various communications objectives. Earlier experience suggested the advisability of designing messages that would, first, create an interest in health matters and, second, stimulate behavior change. In the past, messages that stressed only health benefits tended to go unheeded. Therefore, the main Phase I message (“Come and Eat Ivy Gourd”) was intended to inform and create awareness. The main Phase II message (“Let's Grow Ivy Gourd”) was aimed at motivating the desired behavior. The main Phase III message (“Healthy and Strong”) focused on reinforcing the behaviors suggested by the overall message (“A Mother Loves Her Child”).

USING CREATIVITY TO DELIVER THE MESSAGE



The SM VAF project adopted a multichannel approach to message delivery that relied on eight different media and interpersonal communications

channels as follows:

- public address systems;
- radio spots and programs;
- outdoor activities such as shows, dramas, and concerts;
- posters;
- printed materials such as manuals, magazines, and T-shirts;
- audio-visual materials;
- billboards; and
- interpersonal group communications.

The SM VAF project team recognized that the use of multiple communications channels would

reinforce complementary messages in terms of the messages' reach, frequency of delivery, and content. Therefore, the project team incorporated a balanced mix of media channels to maximize seven key communications and message factors. These factors are accessibility, repetition and intensity, retention, activity (the specific action that is promoted), accuracy, responsiveness, and independence (the ability of a message or medium to stand alone).

The media programs drew heavily on project resources to cover the cost of materials message development. By contrast, the community programs based on interpersonal communications relied, at least at the outset, on community resources. Generally, interpersonal communications is a major factor in sustaining behavior change.

LAUNCHING THE PROGRAM



Multimedia programs that took advantage of the eight mutually supporting communications channels became the focus of the program's educational efforts.

They were targeted to the first and second audience segments. Within the private sector, the provincial Radio Announcers Association provided free, regularly scheduled broadcast time for messages about child rearing practices, food for mothers and children, and better nutrition for all. (It should be noted that Thailand has no tradition of public service announcements as does the United States.) District officials assisted project personnel by developing information sheets that provided the background for the radio announcements. The announcers association also organized “Meet the People” visits to villages. Motivated by their own humanitarianism, the announcers traveled to villages to meet community members and to promote home gardening and the consumption of such vitamin A-rich foods as the ivy gourd.

Within the public sector, existing district and community organizations distributed various print and audio-visual materials to the several audience segments both directly and through the mail. The materials greatly improved motivation, skills, and home gardening implementation. Schools

developed a small magazine entitled *Knowledge from School to the Family* for distribution five times per year to encourage proper nutrition practices.

In its role as coordinator, the district health office organized community interpersonal programs delivered by local health workers and community organizations, district social development officers, and private associations. One such program was a collaborative effort between the district agriculture and primary school offices to distribute ivy gourd plants and promote ivy gourd cultivation. District and subdistrict agriculture officials and veterinary officials trained teachers in home gardening and animal husbandry. For teachers, any opportunity to improve children's health was sufficient motivation to participate in the project. Teachers in Thailand believe that their responsibility to children extends well beyond the classroom. Specifically, teachers organized a competition among children in grades three through six to propagate the ivy gourd in

school gardens. The competition was intended to foster an acceptable environment for ivy gourd cultivation, motivate propagation of vitamin A-rich foods, and increase community participation in the project. Both school children and district agriculture officials made ivy gourd plants available to households.

Another community interpersonal program recruited well-known and respected subdistrict volunteers to work individually and collectively with village residents to encourage home gardening of the ivy gourd. In a relatively short time, home garden coverage expanded to include the entire district.

Given the widely diverse backgrounds of project participants, training in several forms became an integral project activity. In the case of local health and rural development personnel, for example, periodic workshops not only provided project information but offered participants a forum



Super Mr. Ivy Gourd stars in popular school dramas about health and nutrition.

for assessing current activities and proposing alternative ones. Agriculture workers gained expertise in ivy gourd cultivation, while school teachers—already dedicated to enhancing the overall status of children—honed their skills in organizing school gardens and small animal husbandry projects. In general, training topics ranged beyond the technical to considerations of, among other subjects, community needs assessment, community organizing, nondirective facilitation, and sociocultural factors related to development.

MONITORING THE PROGRAM



Project monitoring disclosed no unusual obstacles to program implementation. It did, however, permit periodic refinement of the program strategy as new facts, situations, and constraints arose. It was the basis for action, not just the passive tracking of project status. Monitoring activities stressed the involvement of all project participants and thus occurred at several levels. For example, at the village level, project coordinators worked with community members on a weekly to monthly basis to assess the status of home gardens. They placed special emphasis on identifying problems in need of correction. Sub-district volunteers also worked with community members. They assisted in implementing new and/or corrective activities and evaluated the feasibility and effectiveness of such activities. The project team held meetings every three months with the heads of district offices to assess project progress and to discuss areas in need of improvement. In addition, the team conducted meetings every four months with the provincial health office.

Monitoring revealed that merely distributing ivy gourd plants and providing basic information about the plant's cultivation were insufficient. For example, community members inquired about the construction of trellises for training the ivy gourd plant and asked for advice on pest control and fertilizer use. While not strictly within the realm of social marketing, the community members' concerns resulted in an expansion of the SM/VAF project's educational component.

EVALUATING THE PROGRAM



In September 1991, three evaluation teams from Mahidol University undertook an assessment of the SM/VAF project. A team from the Faculty of Social Services and Humanities was responsible for the project's knowledge, attitudes, and practices survey. A medical anthropologist from the Institute for Population and Social Research conducted an anthropological investigation of the target population. The Institute of Nutrition's Division of Community Nutrition assessed changes in vitamin A intake and status among the target groups.

Data derived from the knowledge, attitudes, and practices evaluation indicated that the SM/VAF project successfully fulfilled its behavioral objective of improving knowledge, attitudes, and practices in the intervention area compared to the control area. The target audience segment most influenced by project interventions was mothers of preschool-age children.

The anthropological evaluation pointed out that the project most successfully changed the behaviors of lactating women, mothers of preschool-age children, and school-age children. Elderly community members evidenced a change in behavior in that they readily prepared vitamin A-rich foods for consumption by children. Pregnant women, however, continued to be influenced by food regulations and beliefs held by the elderly, although the strength of the beliefs appeared to be declining. Positive impacts were also observed among government officials and community members. Investigators concluded that the prospects for project sustainability appeared promising.

Before the intervention, no statistical difference existed between the intervention and control areas in terms of energy, animal protein, fat, and vitamin A intake of target group members. After the intervention, however, vitamin A intake as well as fat and animal protein intake among target group members had increased significantly. No increases were evident for the control area. Serum retinol tests were conducted on approximately 100 children, of whom 70 were followed over time. The

results were contrary to those for other indicators. Physical examinations revealed that the incidence of xerosis declined among lactating mothers, pregnant women, and preschool-age children in both the intervention and control areas. Among school-age children in both areas, however, xerosis increased slightly, though not at a statistically significant rate.

In the end, it can be concluded that the SM VAF project, to an extent, achieved its mission. The project demonstrated that dietary diversification is possible through careful planning and implementation. Moreover, a dietary intervention effort is an effective way to create a community-based nutrition program that will ensure longer-term prevention of health problems.

The experience gained in the SM VAF project suggests that future dietary diversification programs should consider the following recommendations:

- Expert insights and the cooperation of specialists in several disciplines are essential in a dietary diversification program. Those involved in the intervention must believe in the merits of the preventive strategy.
- Dietary intervention is by nature a dynamic development process. Considerable effort is required to motivate and sustain change. Thus, project collaborators should discuss their expectations thoroughly to determine the reasonableness of their goals and objectives.
- Implementors must be trained in the practical skills associated with recent technical knowledge, in management techniques, and in the theoretical frameworks of behavior change. An atmosphere of team building and cooperation must be established and maintained.
- To address nutrition problems expeditiously, nutrition scientists must offer middle-range solutions based on available knowledge and careful decision making.
- Evaluations of dietary diversification programs should measure impacts at both individual and societal levels through the application of

quantitative and qualitative social science techniques.

- To enhance the effectiveness of dietary diversification efforts, future research should be directed not only to methods for creating change but to the sustainability of social marketing interventions.

KEY REQUIREMENTS

The project's apparent success is attributable to change agents' fulfilling the following eight requirements:

- Change agents must engage in strategic thinking and recognize that nutrition is an integrated behavioral and biomedical discipline.
- Change agents must understand the target population in terms of its cultural, economic, political, psychological, and physical environmental conditions and constraints.
- Change agents must demonstrate talent and creativity in developing innovative and useful messages based on formative research.
- Change agents must be technologically oriented to ensure that program messages are conveyed by the appropriate media as scheduled.
- Change agents must demonstrate an interactive orientation and ability if they are to build a partnership among themselves, community members, and local development officials.
- Change agents must listen to the people, for they alone are the experts about the practicalities of daily life and the best ways to plan and implement intervention programs.
- Change agents must aim to make a difference in the target population's health by empowering people to internalize nutrition knowledge and principles for transfer to other food items and situations.
- Change agents must enjoy knowledge of theoretical and conceptual frameworks for understanding the mechanisms of individual and community change.

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