



WATER AND SANITATION  
FOR HEALTH PROJECT

Operated by  
CDM and Associates

Sponsored by the U.S. Agency  
for International Development

1611 N. Kent Street, Room 1002  
Arlington, VA 22209-2111 USA

Telephone: (703) 243-8200  
Telex No. WUI 64552  
Cable Address WASHAID

The WASH Project managed  
by Camp Dresser & McKee  
International, Inc. Principal  
cooperating institutions and  
subcontractors are Associates  
in Rural Development, Inc.,  
International Science and  
Technology Institute, Inc.,  
Research Triangle Institute,  
Training Resources Group,  
University of North Carolina  
at Chapel Hill.

PA-ABE-200  
PA 2007

# WHAT MAKES HYGIENE EDUCATION SUCCESSFUL?

## Experience from Togo, Sri Lanka, and Yemen and Its Relevance for Project Design

### WASH TECHNICAL REPORT NO. 55

SEPTEMBER 1988

Prepared for  
the Office of Health,  
Bureau for Science and Technology,  
U.S. Agency for International Development  
WASH Activity No. 369

WASH TECHNICAL REPORT NO. 55

**WHAT MAKES HYGIENE EDUCATION SUCCESSFUL?**

**Experience from Togo, Sri Lanka, and Yemen  
and Its Relevance for Project Design**

Prepared for the Office of Health,  
Bureau for Science and Technology,  
U.S. Agency for International Development  
under WASH Activity No. 369

by

Barbara Pillsbury, Ph.D.  
May Yacoob, Ph.D.  
and  
Peter Bourne, M.D.

September 1988

Water and Sanitation for Health Project  
Contract No. 5942-C-00-4085-00, Project No. 936-5942  
is sponsored by the Office of Health, Bureau for Science and Technology  
U.S. Agency for International Development  
Washington, DC 20523

## CONTENTS

CHAPTER	Page
EXECUTIVE SUMMARY .....	v
1. INTRODUCTION .....	1
1.1 Why Hygiene Education Is Important .....	1
1.2 The Purpose of This Report .....	1
1.3 Hygiene Education Defined .....	2
1.4 Overview of the Case Study Projects .....	2
1.4.1 The Togo Rural Water and Sanitation Project .....	3
1.4.2 The Health Education Program in South Coastal Sri Lanka .....	3
1.4.3 The Hygiene and Sanitation Education Campaign in Yemen .....	4
1.5 Health Education, Hygiene Education, and Community Participation .....	4
2. HEALTH EDUCATION AND COMMUNITY DEVELOPMENT IN TOGO .....	7
2.1 Introduction .....	7
2.2 Preconditions for Effective Health Education .....	7
2.3 Administrative Structure and Logistics .....	8
2.3.1 U.S. Technical Advisors .....	8
2.3.2 Togolese Field Agents .....	8
2.3.3 Village Development Committees .....	8
2.3.4 Peace Corps Volunteers .....	9
2.4 Implementation: How Did the Project Proceed? .....	9
2.5 Training .....	10
2.5.1 Training for Social Affairs and Sanitation Field Agents .....	11
2.5.2 Training for Village Development Committees .....	11
2.5.3 Training for Villagers .....	11
2.5.4 Training for Peace Corps Volunteers .....	11
2.5.5 Shortcomings .....	12
2.6 Monitoring and Evaluation .....	12

## CONTENTS (continued)

CHAPTER	Page
3. HEALTH EDUCATION IN SRI LANKA .....	13
3.1 Introduction .....	13
3.1.1 Baseline Study and Impact Assessment .....	13
3.1.2 Gaining Support for Health Education .....	13
3.2 Preconditions for Effective Health Education .....	14
3.3 Administrative Structure and Logistics .....	14
3.4 Implementation: How Did the Health Education Proceed? .....	14
3.4.1 The Health Educators .....	14
3.4.2 Training for the Health Educators .....	15
3.4.3 Reaching Out to Local Families .....	15
3.4.4 Local Demand for Additional Advice .....	16
3.4.5 Need for Additional Training .....	16
3.5 Monitoring and Evaluation .....	16
3.6 Conclusions, Recommendations, and Lessons Learned .....	16
3.6.1 Achievements .....	16
3.6.2 Lessons Learned .....	17
4. A HYGIENE AND SANITATION CAMPAIGN AMONG ILLITERATE VILLAGE WOMEN IN YEMEN .....	19
4.1 Introduction .....	19
4.2 Preconditions for Hygiene Education .....	20
4.2.1 Lack of Health Services .....	20
4.2.2 Agency Recognition of the Need for Hygiene Education .....	20
4.3 Administrative Structure and Logistics .....	21
4.3.1 The Campaign Director and Health Educator .....	21
4.3.2 Local Agency Involvement .....	21
4.3.3 Gaining Local Support .....	21
4.3.4 Local Assistants .....	21
4.4 Implementation: How Did the Hygiene Campaign Proceed? .....	22
4.4.1 Content and Instructional Materials .....	22
4.4.2 Structure: How and When Did Communication Take Place? .....	22
4.5 Conclusions, Recommendations, and Lessons Learned .....	23
4.5.1 Linking Construction and Hygiene Education .....	23
4.5.2 The Structure and Tempo of the Campaign .....	24
4.5.3 Instructional Materials .....	24
4.5.4 Communication with Women and Sanction by Men .....	26

**CONTENTS (continued)**

<b>CHAPTER</b>	<b>Page</b>
5. LESSONS LEARNED: INGREDIENTS FOR SUCCESSFUL HYGIENE EDUCATION ....	27
5.1 Preconditions: Essential Elements at the Planning Stage ....	27
5.1.1 Conviction of the Need for Hygiene Education .....	27
5.1.2 Ability to Overcome Initial Resistance .....	27
5.2 Administrative Structure and Logistics .....	28
5.2.1 No One Type of Administrative Structure Guarantees Success .....	28
5.2.2 Creating an Appropriate Administrative Structure Where None Exists .....	28
5.2.3 Willingness to Allocate Funds for Hygiene Education .	28
5.2.4 Personnel with Community Development Skills and Commitment .....	29
5.3 Laying the Groundwork .....	29
5.3.1 Conducting a Baseline Study .....	29
5.3.2 Gaining the Support of Local Political Leaders .....	30
5.3.3 Recruiting Appropriate Persons as Health Educators .	30
5.3.4 Task-Focused Training for the Health Educators .....	31
5.4 Community Outreach .....	32
5.4.1 The Role and Training of Community Organizations ....	32
5.4.2 Planning Educational Sessions in Homes and Community Centers .....	32
5.4.3 Hygiene Education, Community Participation, and Construction .....	33
5.5 Monitoring, Evaluation, Support, and Mid-Course Adjustments .....	34
 <b>BIBLIOGRAPHY</b> .....	 35
 <b>APPENDIX</b>	
A. Processes and Content of a Hygiene Education Program .....	39
B. Assessing Communities .....	47
C. How to Make Individual and Household Contacts Effective and Positive .....	55
D. How to Make Small Group Discussions Effective .....	61

## EXECUTIVE SUMMARY

### The Problem

Supplying clean drinking water, increased amounts of water, and better methods of excreta disposal does not automatically reduce disease or improve health. The intended users of these new facilities must actually use them, use them properly, and also adopt other related new behaviors required for improving health. Hygiene education is, therefore, now recognized as an essential part of water supply and sanitation projects.

Hygiene education is an indispensable part of such projects and ensures improved health and sustainability of the system after donor assistance is withdrawn. Hygiene education informs community members about how to use water in a more health-promoting, disease-preventing way. It includes instruction in all aspects of water collection, storage, use, and disposal; the use of clean water for feeding infants and general food preparation; desired bathing practices for all ages; and domestic cleanliness.

This report provides guidance for project designers and implementers as well as for policy- and decision-makers in water supply and sanitation projects which should lead to both improved health and sustainable projects. Several such projects have had effective hygiene education components. These projects have been analyzed and the lessons learned presented in this report.

### The Case-Study Projects

Three hygiene education programs stand out as providing valuable lessons for the design and implementation of hygiene education components in water supply and sanitation projects. They are the AID-funded Togo Rural Water and Sanitation Project, the Health Education Project of the Matara Water Supply Program in Sri Lanka, and the hygiene and sanitation component of the Integrated Rural Development Program/Mahweit, North Yemen.

### Lessons Learned

There exists no single model hygiene education program that is applicable everywhere. Many principles that make for successful implementation are constant, however, from one country and culture to another. These include the following:

1. Conviction of the need for hygiene education. Someone or some group of people in an influential position must understand the need for hygiene education.

2. Ability to overcome initial resistance. Often there is resistance to providing hygiene education on practical or bureaucratic grounds (such as, for example, when a government water and sanitation agency is not accustomed to providing health education), rather than opposition to hygiene education in principle. The promoters of health education must be innovative in finding ways to overcome initial resistance.
3. Creating administrative structures. Proponents of hygiene education must be flexible and innovative in looking for appropriate administrative arrangements through which to carry out the desired activities. Where an appropriate administrative structure does not exist, attempts should be made to create one.
4. Willingness to allocate funds for hygiene education. For a maximum impact on health status, hygiene education should be planned and adequate funds allocated from the outset of the project.
5. Personnel with community development skills and commitment to working with communities. The organization responsible for hygiene education must have personnel who are skilled in working with local communities or at least knowledgeable about the need to do so.
6. Conducting a baseline study. Baseline studies of prevailing beliefs and practices related to water collection, storage, and use are critical for designing hygiene education messages that people will listen to.
7. Gaining the support of local political leaders. This is critical to the success of hygiene education programs.
8. Recruiting appropriate persons as hygiene educators. Hygiene educators must come from the local community or nearby, or they must work through or with the assistance of local people. Use of local personnel is also important for sustainability reasons.
9. Providing practical task-focused training. Training for hygiene educators must be lively, participatory, and task-oriented and must include communication skills as well as technical knowledge about water and hygiene.
10. Interacting effectively with community leaders. Continued approval and validation of the project by community leaders is critical.
11. Interaction with community organizations and training for their members. Projects are more successful when they work with already-existing community organizations.

12. Well-planned educational sessions in homes and other community sites. Hygiene education must be carefully planned and developed but must fit flexibly into existing daily household and community routines.
13. Complementary relationship to community participation and construction. Hygiene education is most effective when it is carefully linked to water supply and sanitation construction activities and when community members are participating in the construction and project implementation.
14. Ongoing monitoring, evaluation, support, and mid-course adjustments. Ongoing monitoring and mid-course adjustment are essential for success. Frequent review meetings also provide both technical and moral support for health or hygiene educators.

### Conclusions

The above principles should be used in the design of new projects, for the introduction of hygiene education components into already ongoing projects, and for the fine-tuning of hygiene education programs that are already in existence.

## Chapter 1

### INTRODUCTION

#### 1.1 Why Hygiene Education Is Important

Hygiene education is now recognized as an essential part of water supply and sanitation projects. A major purpose of these projects is to reduce diseases associated with contaminated or inadequate water sources and poor household and community sanitation. However, supplying clean drinking water in increased amounts and providing improved excreta disposal facilities (latrines or sewers) does not automatically reduce disease or improve health. The intended users of these new facilities must actually use them and use them properly. This means adopting new behavior if health is to improve. "Changing peoples' habits in excretion and water usage takes more than introducing an adequate, dependable and convenient new source. Realistically speaking, a pervasive and effective health-education campaign is required" (Walsh and Warren 1979).\*

But how should hygiene education be done? Recent years have seen the launching of numerous hygiene education programs, often as components of projects funded by donor organizations. What has been learned from these efforts? Have they been successful? What makes for successful hygiene education? Do any model programs exist?

#### 1.2 The Purpose of This Report

Project experience and the related literature point to several projects that have been successful in implementing effective, well-received hygiene education. This report is an attempt to analyze these projects and to consolidate lessons learned so that they can be used in other countries under diverse circumstances.

This report should be used together with two other reports, both of which similarly provide guidance for designing and implementing water projects that are likely to be sustainable and improve health. These are:

Guidelines for Designing a Hygiene Education Program in Water Supply and Sanitation for Regional/District Level Personnel (WASH Field Report No. 218, 1987), by Mayling Simpson-Hebert and May Yacoob, and

New Participatory Frameworks for the Design and Management of Sustainable Water Supply and Sanitation Projects (WASH Technical Report No. 52, 1987), by Paula Donnelly-Roark.

\* See also Blum 1983; Feachem 1984; McJunkin 1983; Esrey, Feachem and Hughes 1985; Esrey and Habicht 1986; Briscoe 1984; Wolman 1975.

### 1.3 Hygiene Education Defined

Hygiene education is the indispensable project component that informs community members about how to use water in a more health-promoting, disease-preventing way. It includes instruction in all aspects of water collection, storage, use, and disposal; the use of clean water for feeding infants and general food preparation; desired bathing practices for all ages; and domestic cleanliness.

While these topics may seem dry and even somewhat boring, the way in which they are presented can be exciting and relevant to the daily concerns of rural people. As with all health sector interventions, it is very difficult to show the impact of a water and sanitation project in a short time. It is well known, however, that to achieve any long-term benefits a few specific components are essential. In water and sanitation, these are (a) effective communications with community members, (b) change in the knowledge of community members, and (c) change in their daily hygiene practices.

In the case studies described in this report, the educational messages were presented effectively, many community members absorbed the information presented, and many have begun to change their daily practices.

The case studies were chosen because they use approaches known to lead to changes in behavior. In fact, in many areas of the projects described, they have been shown to do so.

### 1.4 Overview of the Case Study Projects

Three hygiene education programs stand out as providing instructive case studies and valuable lessons for the design and implementation of hygiene education programs in water supply and sanitation projects. They are:

- ♦ The Togo Rural Water and Sanitation Project,
- ♦ The Health Education Project launched in south coastal communities in Sri Lanka as part of the Matara Water Supply Program, and
- ♦ A hygiene and sanitation education campaign in the Yemen Arab Republic, carried out simultaneously with the construction of an improved water supply system (Mahweit North Yemen Integrated Rural Development Program, implemented by Save the Children Federation with funding from AID).

These three programs differ in size, duration, structure, and constraints. All afford valuable insights as to what makes for effective hygiene education. Following is a brief synopsis of each project condensed from the longer case studies presented at the end of this report.

#### 1.4.1 The Togo Rural Water and Sanitation Project

This project is an outstanding model for all rural water supply and sanitation projects that are developed to improve health. It is unique in being one of the few documented projects in which health education and community participation (the "software") are intimately and effectively interwoven with water supply and sanitation technology, the "hardware" of the project.

The Togo project took seven years and began in 1981. It is the largest undertaking of the three case-study projects. Its goal was to improve the health of approximately 600,000 people in 745 rural villages through the provision of safe drinking water. This was to be accomplished through the installation of 1,000 wells, equipped with foot pumps, each to provide 30 liters of water per person per day. It was a joint effort of AID, the Peace Corps, European donors, and the Government of Togo. The project was implemented through Togo's Ministry of Public Health and Social Affairs.

From the very beginning, health education and community participation were perceived as critical to the success of the project. Accordingly, funds allocated to this component of the project totaled almost 25 percent of total project funds. USAID/Togo had primary responsibility for the health education and community participation component.

About 158 days of training were provided for each of 120 Togolese field agents as well as for village volunteers and village development committees in over 1,000 villages. Innovative participatory training methods were used throughout. Training included not just health education and technical skills related to the water supply but also focused more broadly on problem-solving for community development in general.

#### 1.4.2 The Health Education Program in South Coastal Sri Lanka

The Matara Water Supply Program Health Education Project was part of a project to provide piped drinking water for approximately 60,000 people in the town of Matara and along a 12-mile strip on the southern coast of Sri Lanka.

The project was funded by a grant from the British Overseas Development Agency to Sri Lanka's national Water and Drainage Board which contracted with a British engineering firm to oversee implementation. The health education program was carried out by Global Water, a non-profit organization based in Washington D.C., and an indigenous non-governmental organization called the Decade Service.

The health education component began in 1983 with a baseline study of the population to be served. Community activities were implemented in cooperation with schools, pagodas, and local political groups. Health education was provided by 40 young women, all high school graduates, from the consumer communities. Following initial training in basic health, hygiene, water use, and personal communication skills, the 40 health educators met with family members at their homes to transmit the knowledge they had learned. Each of the 40 health educators was assigned responsibility for 100 to 150 families.

The educators soon found that, having built up a trusting relationship with their client families, they were being asked for information and assistance in all areas of health. The project managers thus arranged an additional week-long training course to meet this need. Implementation was clearly successful, and there are indications that the project may be contributing to improved health.

#### 1.4.3 The Hygiene and Sanitation Education Campaign in Yemen

The Yemen hygiene education program was a modest eight-week campaign in eight villages. It was carried out in early 1981 simultaneously with the improvement of a spring and the construction of a spring water supply storage and distribution system. The site was an isolated rural area of the Yemen Arab Republic where there is no easy access to modern health care. The goal was to transfer basic concepts of personal and domestic hygiene and sanitation to illiterate users of the water supply system.

The implementing agencies were the U.S.-based Save the Children Federation and the Local Development Association of District Khabt in Mahweit province. Villagers contributed most of the labor and some local construction materials.

The campaign consisted of informal discussions with women in their homes in the eight villages led by an American Save the Children health educator and eight local assistants. They were all women. A tape cassette, photographs, and colored drawings were used to communicate the hygiene and sanitation messages.

In each village, the local assistant made introductions, found a site for instruction, and re-phrased messages in the local dialect. Through this process the local assistants came to understand the hygiene and sanitation messages and eventually assumed the role of discussion leader and, thus, local health educator.

#### 1.5 Health Education, Hygiene Education, and Community Participation

Often lumped together as the "software" of water supply and sanitation projects (in contrast to the "hardware" of pumps, pipes, and latrines), health education, hygiene education, and community participation are in fact different.

Community participation generally means, in water supply projects, that community members are involved in making decisions related to planning, financing, implementation, construction, and operation of the water supply system created by or improved by the project. Most governments do not have the means to provide ongoing maintenance and financing after a project has been completed. In rural communities, community participation is critical for sustaining the water supply system after donor assistance has been withdrawn. Without community participation during implementation and construction, the new facilities often fall into partial or complete disrepair and are no longer used because they are no longer operated or maintained. Community participation in water supply and sanitation projects also appears to stimulate community participation in other primary health care activities (Eng et al. 1987).

Hygiene education is the indispensable project component that informs community members about how to use water in a more health-promoting, disease-preventing way. It includes instruction in all aspects of water collection, storage, use, and disposal; the use of clean water for feeding infants and general food preparation; desired bathing practices for all ages; and domestic cleanliness.

Health education is more comprehensive than hygiene education. It includes hygiene education but also provides instruction or guidance in such areas as household first aid, breastfeeding, childhood immunization, prenatal care, family planning, and other primary health care concerns.

The Togo project included both health education and community participation. The Sri Lanka project emphasized health education and the Yemen project hygiene education.

## Chapter 2

### HEALTH EDUCATION AND COMMUNITY DEVELOPMENT IN TOGO

#### 2.1 Introduction

The Togo Rural Water and Sanitation Project is unique in being one of the few documented projects in which health education and community participation are intricately interwoven with water supply and sanitation technology.

The goal of this project was to improve the health of approximately 600,000 people in 745 rural villages through the provision of safe drinking water. This was to be accomplished through the installation of 1,000 wells, equipped with Vergnet foot pumps, which would provide 30 liters of water per person per day. From the very beginning of the project, substantial health education and community participation components were perceived as critical to the success of the project.

The project was begun in 1981 and completed in December 1987. It was financed by the U.S. Agency for International Development (USAID), France's Fund for Aid and Cooperation (Fonds d'Aide et de Coopération, FAC), the European Development Fund (Fonds Européen de Développement, FED), the U.S. Peace Corps, and the Government of Togo. Togo's Ministry of Public Health and Social Affairs and USAID/Togo had primary responsibility for the health education and community participation components. Two full-time U.S. technical advisors assisted at the national and regional levels.

The project has been highly successful (see Roark et al. 1988). In large part this success is due to the project's emphasis on community participation and carefully developed training for all project participants--from field agents responsible for the training to village committees to villagers using the new wells.

#### 2.2 Preconditions for Effective Health Education

The most important precondition for developing effective community participation and health education related to water and sanitation was the willingness of both the government and donors to allocate substantial resources for these activities. One quarter of project resources were spent on these components, an unusually large percentage.

In addition, project management included persons who had community development skills. The USAID project manager and his Togolese government counterparts were committed to community resource development. They and the project's technical advisors recognized that the relationship between well use and maintenance on the one hand and the reduction of water-related disease on the other was a complex undertaking which required a synthesis of technical and social solutions. Great emphasis was placed on identifying the villagers' beliefs and practices related to water supply and sanitation and to developing training, education, and community participation activities accordingly.

An implementation strategy was developed that focused on learning and problem-solving. This emphasized skill acquisition as well as knowledge and was built on the recognition that genuine learning is not a one-time activity but must be ongoing. Problem-solving means learning to identify problems in the community, determining their causes, and developing solutions. The project managers believed that project success should be measured in terms of the community's ability to continue the problem-solving process on its own after the wells were completed.

A very important precondition for the effectiveness of the health education component was the recognition by all project personnel--including well-drilling technicians, sanitarians, and employees of the Department of Social Affairs of the Government of Togo--that they must share a similar basic philosophy and orientation in order to work together successfully. They placed great importance on regular, clear communications among specialists and subspecialists within the project through planning, training activities, policy and review meetings, and social and professional relationships.

## 2.3 Administrative Structure and Logistics

### 2.3.1 U.S. Technical Advisors

Two long-term U.S. technical advisors were responsible for planning, organizing, and managing the project including the health education, engineering, and training components. They were also responsible for developing the health education materials, for evaluation and redesign of project activities as needed, and for overall monitoring, support, and follow-up in the field.

### 2.3.2 Togolese Field Agents

A total of 120 field agents from the Departments of Social Affairs and Sanitation of the Ministry of Health in the Savanna and Plateau regions of Togo were trained. Of these, 19 are women. Usually the field agents work in teams of two, one from each of the two departments, and thus provide complementary social and technical services. Their responsibilities included training other field agents, members of Village Development Committees, and village volunteers; supervising the Village Development Committees and village volunteers; supervising the construction of latrines, alternative water supply technologies, and other community development activities; and participating in project planning, evaluation, and educational materials development.

### 2.3.3 Village Development Committees

Field agents assisted villagers to select local people to make up a Village Development Committee. Initially the committee members analyzed the proposed pump installation in terms of costs and benefits and then decided whether they wished to participate in the project or not. If they decided to participate, the roles and responsibilities of the community and the project staff were

clearly spelled out so that everybody, from regional staff to village committees, knew what tasks had to be completed and by whom. Subsequently, the committee members were given training by the field agents and collected money from the community for a pump maintenance fund.

In general, each committee consists of a president, secretary, treasurer, two pump repairmen, two women pump caretakers, two women oral rehydration therapy demonstrators, and sometimes several counselors.

These village committees were the key to the effectiveness of the program. Their organization and training took place over a 6 to 12 month period with field agents organizing and participating in a series of committee meetings in which the committee's tasks were clearly developed. The responsibilities of these committees included pump management, the creation and management of a community treasury, and the coordination of village tasks.

#### 2.3.4 Peace Corps Volunteers

Fifteen Peace Corps volunteers provided services related to gardening, mechanics, community development, health education, support for cooperatives, spring capping and construction, epidemiology, and management.

#### 2.4 Implementation: How Did the Project Proceed?

The method of working with the communities evolved over time in response to the usual constraints faced by water supply and sanitation projects. These include difficulties in transportation, the disinterest of some villages in the project, and under-representation of women in decision-making and community responsibilities.

The project was based on the following principles:

- ♦ Community participation and organization
- ♦ Human resource and institutional development
- ♦ Involvement of women in project activities
- ♦ Use of a phased strategy in developing all training activities and
- ♦ The use of participatory training methodologies.

Community participation was aimed at community development. It was thus treated as a continuous learning process during which the community clarifies, acquires, and actively applies knowledge, skills, and organizational capacities necessary to solve its own problems.

The project began with an intensive and innovative baseline study of a random sample of 52 villages. While project staff were in a village to collect baseline data on existing practices, they also provided remedies for some of the prominent and common diseases. This was instrumental in establishing trust with community members and in getting communities to recognize major local illnesses.\*

In the project design, construction and health education were to proceed simultaneously. As planned, the first step was to have been to inform villagers of the nature of the project and the rights and obligations of project personnel and participating villagers before a drilling team arrived in the village. Because of the early start and fast pace of well drilling, however, the initial activities of the health education/community development component were reactive rather than proactive. Consequently the health education/community development component had to be continuously evaluated and modified by project personnel as implementation proceeded. This resulted in continuous participation of villagers and field agents in activities appropriate to local conditions.

## 2.5 Training

Training was provided for field agents, Peace Corps volunteers, village committees, and village volunteers. Participatory training methods were used throughout with minimal time spent on lectures and a maximum of time devoted to practical training. The actual cost for training and activities in health education and community development was 25 percent of total project cost.

Training was defined as a "process of problem-solving and exchange between trainers and trainees" and was based upon everyday experiences and tasks which the trainees were expected to carry out. Trainees discussed their activities and practiced the tasks for which they would later be responsible in their communities. Prior to the project, participatory methods were not often used by the Ministry of Education. Given the positive results that derived from using these methods, their use was very appropriate.

Each field agent received an average of about 70 days of training in health education and community development and an average of about 16.5 days of training in construction techniques. The fact that over 80 percent of the training was devoted to health education and community development, and comparatively little time to construction, is extraordinary--and perhaps unprecedented.

Formal training was provided for Village Development Committees in 1,058 villages. This amounted to about 10 days per village and about two days per member (an estimated 10,000 person-days total).

---

\* Results would have been even better had it been possible to carry out the base line survey before the project started. In addition, local institutions and researchers were not used, but should have been.

### 2.5.1 Training for Social Affairs and Sanitation Field Agents

The field agents were trained on two levels. First a core group was trained by the U.S. technical advisors to serve as "trainers of trainers" (referred to as "lead trainers"). These lead trainers subsequently planned and conducted the training of the other field agents. All of the field agents received training in community relations. This included assessment of health problems, organizing community committees, interpersonal communications, supervision techniques, micro-project development and management, principles of adult education, group dynamics, planning health education campaigns, and evaluation techniques for agents and villagers. The technical training of field agents included pump maintenance and repair, spring capping, cistern construction, latrine construction, gardening methods, guinea worm control, oral rehydration therapy, and accounting. Field agents also attended planning and evaluation workshops four times a year to plan upcoming activities.

Perhaps the most striking aspect of the field agents' training is that, while the technical training was very important, the training in community relations, planning, and evaluation was more important in terms of the number of days devoted to it. Field agents confirm that the training they received was very practical and relevant in contrast to their previous training and work. Sanitation field agents, whose former training had been mainly technical, found the new training very useful. The Social Affairs field agents, though familiar with community relations, found that the new training gave them skills which were much more practical than what they had received in their earlier training.

### 2.5.2 Training for Village Development Committees

Village Development Committees were trained in administrative and operational procedures. This included pump management and maintenance, how to create and fund a community treasury to pay for pump maintenance and other health-related activities, how to open and manage a bank account, how to obtain spare pump parts, and how to plan and conduct community meetings.

### 2.5.3 Training for Villagers

In addition to the above-mentioned training of Village Development Committee members in administrative and operational tasks, other villagers received training to permit them to function as pump mechanics, pump maintenance volunteers (women), latrine volunteers, cistern volunteers, and ORT volunteers (women). Other village education activities included the organization of health education campaigns, organization of literacy campaigns, support for health education activities in the primary schools, and the implementation of health-related village micro-projects.

### 2.5.4 Training for Peace Corps Volunteers

Volunteers were recruited to assist the Social Affairs field agents in technical aspects of spring capping and latrine construction. Peace Corps volunteers also carried out hygiene education in communities where guinea worm is endemic.

### 2.5.5 Shortcomings

In a project of this size and duration, it would seem likely that by the end of the project there would be a nucleus of national trainers with strong skills in all aspects of designing, facilitating, managing, and evaluating training programs. Unfortunately this was not the case. The training the lead trainers received from the U.S. technical advisors emphasized facilitation skills, which are only one set of skills required for planning and implementing training programs. Other reasons for this shortcoming also provide some constructive lessons for future projects.

First, during the seven years of the project, there were never any Togolese personnel who had full-time responsibility for training activities. Second, the U.S. technical advisors never had full-time Togolese counterparts. Third, none of the Togolese field staff ever received either short- or long-term training in adult education or in the planning and management of training programs (other than the information provided by the project itself). The Togolese National Coordinator of the project agreed that the project had not done everything possible to strengthen Togolese training capability so that a core of national trainers would be prepared to assume full responsibility for directing similar training programs in the future.

### 2.6 Monitoring and Evaluation

A unique aspect of this project was its evaluative criteria. In addition to criteria for regular responsibilities in operations and maintenance, the project developed one additional criterion. On the belief that water projects are an important and unique opportunity for strengthening community resource management abilities, the criterion used to assess the success of this process was whether communities began developing plans for additional village projects, called "micro-projects" (petits projets). Subsequent to the departure of the U.S. technical advisors, some communities had indeed built a school or a mosque and it is possible that other types of "micro-projects" were also undertaken.

The final project evaluation also revealed that progress has been made toward adoption of the health behaviors promoted by the project. Recommended practices concerning water transport, storage, and use are well known among the villagers. In many communities men and women now also know how to prepare oral rehydration solution. This basic knowledge is an important precondition to the adoption of new practices. Finally, many villagers have begun to adopt the new routines, even though they are not yet practiced under all circumstances.

## Chapter 3

### HEALTH EDUCATION IN SRI LANKA

#### 3.1 Introduction

Under a grant from the British Overseas Development Agency, the National Water Supply and Drainage Board of Sri Lanka contracted with a British engineering firm, Halcrow-Balfour Ltd., to oversee the implementation of a piped drinking water supply project. The project was to serve approximately 60,000 people in the town of Matara and along a 12-mile strip on the southern coast of the country. Halcrow-Balfour in turn contracted with Global Water, a non-profit organization based in Washington D.C., to provide water-related health education as part of the project.

##### 3.1.1 Baseline Study and Impact Assessment

The health education component began in 1983 with a two-week baseline study of the population to be served by the new piped water system. A physician-anthropologist conducted several dozen interviews with randomly selected families and individuals in all the communities. The interviews focused on existing water use patterns, knowledge of water-related diseases, and traditional health beliefs and practices and also on whether these beliefs and practices were flexible enough to allow changes that would benefit health. Village and religious leaders, local government health officials, and other influential people in the communities were also interviewed.

An assessment was made of the potential impact of improved water use and hygiene practices in reducing disease incidence. An economic assessment was also made to determine whether there were sufficient family resources to take advantage of new knowledge and new water supplies to improve health. For instance, even if the community members understood the importance of soap, would they have enough money to buy it?

The baseline study was completed in 1983. After bureaucratic and administrative delays, the health education program began in 1984.

##### 3.1.2 Gaining Support for Health Education

It was difficult to gain acceptance for the health education component. Sri Lankan officials recognized that such a component was of value, but they resisted it for bureaucratic reasons. The National Water Supply and Drainage Board, an entity run entirely by engineers, had little interest in health education and certainly did not see health education as its responsibility. On the other hand, the Ministry of Health, which is responsible for all health education, was reluctant to work on a project for which it did not have complete responsibility. Moreover, the Ministry had many other health education priorities and was reluctant to take on another.

In the end, the health education program was initiated because the donor, the British Overseas Development Agency, insisted there be such a component or it would not fund the project at all.

### 3.2 Preconditions for Effective Health Education

Recognition of the value of health education and its acceptance was thus driven by the insistence of the British Overseas Development Agency that it be part of the piped water supply project. The further down one went in the Water Supply and Drainage Board's organizational structure, the less evident was any interest in health education. What did help to motivate the Board was the fact that health education would promote, among other things, house connections rather than standpipes. House connections would generate more income for the Board and so it, as well as consumers, would benefit from such promotion. Once the decision was made by senior Board officials to mount a health education program, other staff became much more interested in examining and appreciating consumer water use patterns and beliefs.

Much of the success of the health education program was due to the energetic individual who was hired to head the health education unit. He was well known in the community and his leadership did much to create enthusiasm and support for health education. The 40 women he chose to be trained as health educators were highly motivated and interested in the work from the start.

### 3.3 Administrative Structure and Logistics

To avoid becoming enmeshed in the civil service structure and with other bureaucratic problems relating to the Water Supply and Drainage Board, the health education unit was set up under the administrative structure of an existing non-governmental organization (NGO). This organization, known as the Decade Service, is an umbrella organization, funded in part by the United Nations Development Program, to serve as coordinator of indigenous NGOs working in United Nations Water Decade programs. Arrangements were made for this agency to become the fiscal agent of the program. Funds were provided directly by the British Overseas Development Agency. The Decade Service then kept the books and dispensed funds under the direction of the project director.

Community activities were planned by the health educators in collaboration with the health education director and were implemented in cooperation with schools, pagodas, and local political groups. The most important of these groups were the gramodayamandalay, quasi-governmental groups composed of all grass-roots community organizations.

### 3.4 Implementation: How Did the Health Education Proceed?

#### 3.4.1 The Health Educators

The 40 young women selected by the project director were all high school graduates who had completed university entrance requirements. However, because of lack of funds or university places, they had not been admitted. Most were optimistic about getting places in nursing schools and hoped that their participation in the water supply education program would assist them toward that end. There was thus a high demand for these positions, despite low pay, and so it was possible to choose the very best applicants.

Without in any way compromising the quality of selectees, an effort was made to choose at least one representative from each of the communities involved as well as several from the town of Matara. Again, without compromising quality, some concessions were made to local political authorities in determining who was selected. This was perceived as necessary to gain their support for the program.

#### 3.4.2 Training for the Health Educators

The 40 health educators were trained at a small technical college for a week. A curriculum had been carefully prepared with the assistance of UNICEF representatives in Colombo and the Health Education Division of the Ministry of Health. The lectures were given by staff of these organizations as well as by some selected academics.

The curriculum included basic information on water supplies, sanitation, health, and hygiene. This was extended to certain general health interventions such as oral rehydration therapy, immunization, and breastfeeding. The trainees were also taught how to work with the families that would be assigned to them. This included how to present themselves and their information in a way that would be acceptable to their audience and how to avoid some obvious pitfalls in communication.

#### 3.4.3 Reaching Out to Local Families

Each of the 40 health educators was assigned responsibility for 100 to 150 families. To begin, they were to establish contact with each family by filling out a detailed questionnaire on water use, hygiene practices, and health. The questionnaire was developed by the health education director as a way of establishing baseline data and to enable the educators to begin a relationship with those with whom they were to work.

The education process took place at all times of day and evening depending on the availability of adult family members. Mothers with infants were generally visited in the early morning, and many visits were made in the early evening after the men had come home from work.

The health educators provided families with basic information, both orally and graphically, on water supplies, sanitation, and hygiene. Using the information in the questionnaire, they then provided more detailed information which addressed hygiene or knowledge deficiencies specific to individual families.

Initially the educators taught family members how to use their newly acquired ample water supplies more efficiently. Personal hygiene, the washing of cooking utensils, and especially the washing and hygiene of children were stressed. They also encouraged families to examine the possibility of installing or purchasing one of several types of latrine.

#### 3.4.4 Local Demand for Additional Advice

Very quickly the educators found they were being consulted on a wide variety of health issues, including referrals to physicians in nearby hospitals. Although this was not the primary intent of the program, it became evident that to maintain their credibility, the health educators had to respond. This they did to the best of their ability and limited knowledge.

It is clear that it is very difficult to separate water supply and sanitation from general health in the minds of the recipients of health education services. The young educators were being asked to function as "barefoot doctors" for which they had been given no training.

#### 3.4.5 Need for Additional Training

After a time, it became apparent that the training was not strong enough in general health issues. The educators found that, having rapidly communicated everything they had to say about water supplies and sanitation and having built up a trusting relationship with their client families, there was a demand for information and assistance in all areas of health. After the program had been in existence for a year, the project managers instituted an additional week-long training course to remedy this deficiency.

### 3.5 Monitoring and Evaluation

Monitoring and evaluation were carried out at two levels--on an ongoing daily basis by the on-site health education director and by the Global Water program monitor in Washington. The on-site director met with all of the educators once a week and discussed their problems and other issues they raised. He provided appropriate support and helped modify their approach to solve any difficulties. The Global Water monitor visited Sri Lanka for two weeks each year to work with the health education director to evaluate the total impact of the health education program and to work with government officials and others involved in the engineering part of the project.

The original baseline questionnaire will be re-administered and the results used as a measure of behavioral and attitudinal changes that the health education has brought about.

### 3.6 Conclusions, Recommendations, and Lessons Learned

#### 3.6.1 Achievements

Implementation was clearly successful and there are some positive indications that the project may be contributing to improved health, although it is too early to be definitive about the impact of the project. Prior to the project, there had been some cholera cases in the target community every year. During the three years since health education began, there has not been a single case. This may be due to other factors, and the disease may suddenly return. However, for the moment it is an encouraging sign.

Direct observation of people's behavior in the target villages also indicates that the project has had an impact. Many villagers, especially women, can be seen using water according to the manner the health workers have taught them (even when they are unaware they are being observed). Also, the project has achieved a high level of awareness among villagers and is widely discussed. It is hard, therefore, to believe that the message is not also having a significant impact.

### 3.6.2 Lessons Learned

The following lessons have been learned:

- (1) The need for health education must be constantly emphasized and promoted, usually by outsiders. Health education is invariably given a low priority by government officials compared to the hardware aspects of water projects.
- (2) High impact can be achieved at relatively low cost. While the content of the project is important, finding the right person to direct it is crucial.
- (3) To achieve acceptance health workers should come from the community, but to have credibility they should be given tokens of authority and stature, such as uniforms or bicycles. The project will be significantly improved if the health workers see the job as a route to upward mobility and the potential for long-term employment or further education.
- (4) Extensive study needs to be made of the community prior to initiating the project. Full understanding of the culture, local psychology, history, and politics of the community are essential if a project is to be successfully designed and implemented. Also, all power centers in the community must be included in the process, including religious leaders, educators, politicians, and informal community leaders.
- (5) Evaluation should be an integral part of the process. Evaluation provides feedback to the community and will assist government and donor organizations in extracting useful lessons for future project planning and implementation.

## Chapter 4

### A HYGIENE AND SANITATION CAMPAIGN AMONG ILLITERATE VILLAGE WOMEN IN YEMEN

#### 4.1 Introduction

In 1981 in an isolated rural area of the Yemen Arab Republic a modest eight-week hygiene and sanitation education campaign was carried out simultaneously with the construction of an improved water supply system. It was called Mahweit North Yemen Integrated Rural Development Program. The goal was to transfer basic concepts of personal and domestic hygiene and sanitation to illiterate village users of the water supply system by means of simple audio and visual materials.\*

The implementing agencies were the U.S.-based Save the Children Federation and the Local Development Association (LDA) of District Khabt in Yemen's Mahweit province. Save the Children designed the project, purchased equipment and most of the materials, and supervised construction. Local villagers contributed most of the labor and some local construction materials.

The project site was Wadi Ayyan in District Khabt just inland of the Tihama coastal plain where the climate is oppressively hot and humid yet almost without rain most of the year.\*\* Wadi Ayyan depends for its water on the al-Baghari Spring, a major source of water for all of water-poor District Khabt.

The hygiene and sanitation campaign took place in the eight small villages in Wadi Ayyan closest to al-Baghari Spring. The villages' population totals about 300 poor "tribalists" (gabayl) and "servant caste" (akhdam), nearly all of whom are illiterate. Most depend for their living on marginal subsistence agriculture. Most of the women have never left Wadi Ayyan, although they are often very mobile within the area and have major responsibilities for agriculture, grazing animals, and searching for firewood. Many of the men have worked outside, chiefly in Saudi Arabia, and most of the few modern luxuries in Wadi Ayyan, such as cassette players, have been bought with money earned outside.

The project consisted of construction to protect the al-Baghari Spring and to build an adjacent water storage facility and an improved water distribution system. Construction took place between January and April 1981.

---

\* This summary is based on the report by Christine Ansell and Robert Burrowes (1981).

\*\* A wadi is a riverbed valley which, except during and just after the rainy season, is completely or almost completely dry.

The hygiene and sanitation program was a small-scale, eight-week campaign, rather than an ongoing activity requiring continued participation of project personnel. The campaign began on the same day as construction to improve the water supply. It consisted of informal discussions with women in their homes in the eight villages. Discussions were led by an American Save the Children employee and eight local assistants. A tape cassette, photographs, and colored drawings were used to communicate the hygiene and sanitation messages.

#### 4.2 Preconditions for Hygiene Education

##### 4.2.1 Lack of Health Services

Implementing agency personnel recognized that there were no modern health services in or nearby Wadi Ayyan. The closest government health worker was nearly three hours' walk away and clinics were even farther. As of 1981, people of Wadi Ayyan (especially women) rarely used these services but relied instead on faith healers, folk rituals against evil spirits, and an acceptance of disease and death as God's will. Traditional attitudes regarding personal and domestic hygiene and sanitation had barely been affected by modern health ideas and practices or by modern products and conveniences.

##### 4.2.2 Agency Recognition of the Need for Hygiene Education

The idea of conducting this hygiene and sanitation campaign was initiated by Save the Children. Save the Children had been working in rural Yemen for some time and recognized the need to improve hygiene practices in rural communities. There had been at least two earlier attempts by development organizations to transfer basic principles of hygiene and sanitation to rural Yemenis.\* The campaign in Wadi Ayyan appears to have been the first attempt, however, to provide hygiene education as part of a water supply construction project.

Several weeks before Save the Children moved into its water project base of operations in District Khabt, it presented to leaders of the Khabt Local Development Association (LDA) the idea of a hygiene and sanitation campaign and the justification for linking it to construction activities. The LDA leaders were more interested in new water projects than in health instruction, but responded positively to the proposed linkage. They too were well aware of the need for health instruction and agreed that construction activities at al-Baghari Spring would provide a good opportunity to focus the attention of villagers on improving hygiene and sanitation.

American Save the Children/Yemen had previously taught basic hygiene and sanitation to literate young men as part of a Water Technician Training Course (see Burrowes 1981). The British Organization for Community Development (formerly CIIR) had earlier conducted activities to transmit health information to illiterate traditional midwives and injectionists (Ansell and Burrowes 1981).

Ultimately both the local government agency (the Khabt LDA) and the foreign donor (Save the Children):

1. Recognized the need for hygiene education and
2. Understood or were willing to learn about local beliefs and practices related to water use and sanitation.

#### 4.3 Administrative Structure and Logistics

##### 4.3.1 The Campaign Director and Health Educator

Save the Children proposed to the Khabt LDA leaders that nutritionist Christine Ansell, the health expert on Save the Children's project staff, be responsible for planning and carrying out the campaign. The LDA leaders accepted and agreed that hygiene and sanitation instruction must be directed at the village women and that this required a woman instructor. They approved both the content of the campaign and Ansell's proposal to use a tape cassette and visual materials as instructional tools.

##### 4.3.2 Local Agency Involvement

The LDA leaders also agreed to assist and publicly endorse the campaign. Specifically, they agreed to introduce the campaign to residents of Wadi Ayyan, to select villages in which to conduct the campaign, to arrange introductions to village leaders, and to help recruit local assistants. The Khabt Local Development Association thus played a crucial role, both practical and symbolic, in successfully launching the campaign.

##### 4.3.3 Gaining Local Support

On the day the Save the Children technicians began construction at al-Baghari Spring, the LDA arranged an informal meeting between Ansell and the "responsible men" of the neighboring villages at which she explained the need for and the goals of the campaign. The village leaders were unenthusiastic and skeptical. Most raised no objections but felt it would be a waste of time because of the villagers' illiteracy and living conditions. Nevertheless, eight target villages were agreed upon and a tentative schedule was set for the first visits to four of the villages.

##### 4.3.4 Local Assistants

Eight village women (one per village) provided essential help. They were not formally recruited nor given formal advance training. Rather they were recruited through an ad hoc process as Ansell was introducing the campaign and then eased gradually into their roles by watching and listening to Ansell. Most of these eight assistants were self-selected. If the village headman had an energetic wife, she usually volunteered. If she was unavailable, the woman who showed the most interest and had time became the assistant. This proved quite successful. The assistants all worked as volunteers.

In each village, the local assistant was crucial. She made introductions, provided her home as the site of instruction or suggested homes for Ansell to visit, accompanied Ansell on home visits, and re-phrased messages in the local dialect. It was through this process that the local assistants came to understand the hygiene and sanitation messages. By Ansell's third or fourth visit to a village, the local assistant was in charge of the discussion while Ansell assisted.

#### 4.4 Implementation: How Did the Hygiene Campaign Proceed?

##### 4.4.1 Content and Instructional Materials

The campaign focused on a small number of relatively simple hygiene and sanitation principles and practices. The fact that this was planned as an eight-week project and was time-restricted helped force a selection of priority messages. The strategy was to reiterate and elaborate these messages rather than present increasing volumes of information. Instruction was informal and centered on use of a tape cassette and visual materials. All materials were specifically prepared for the campaign, using the Yemeni dialect and showing Yemeni clothing, and included pictures of and references to al-Baghari Spring.

The tape cassette was seven minutes long. Examples, humor, and Yemeni music were used to make the messages interesting and easy to remember. The first section was a dialogue concerning health implications of the al-Baghari water project. The second section featured couples talking about improvements in personal and domestic hygiene (e.g., better hand-washing, washing the whole body, and benefits of washing children even while sick) and how they could improve people's health in conjunction with improvements expected from the construction activities.

The visual materials were six large, colored drawings and eight large black-and-white photographs. Each colored drawing (12" x 18") showed a beneficial use of water. Two sets of photographs (9" x 12") were used. The first set of three photographs showed health hazards of the unimproved al-Baghari Spring (e.g., donkeys and camels standing in the water which was being collected for household use). The second set of five photographs portrayed five areas of improved domestic hygiene.

##### 4.4.2 Structure: How and When Did Communication Take Place?

Instruction took place in each of the eight villages during visits by Ansell. It consisted of four to five hours of intermittent presentation of hygiene and sanitation messages on each visit--which Ansell judged to be "just about all the village women could handle." Participants in these educational sessions were illiterate women. Occasionally a few village men also sat in on the discussions. Ansell made about six visits to each village.

Ansell spent most of the first week in the village closest to the spring where construction was beginning, meeting residents and being informally introduced to their relatives and friends in the other villages. By the time she made her first visits to the other seven villages, villagers there had learned by word of mouth about this foreigner and her strange mission. Word-of-mouth communication among the villagers played an important role throughout the campaign.

The form and tempo of the campaign were largely determined by the daily routine of the village women toward whom the campaign was directed. It began each day with Ansell's arrival at al-Baghari Spring where construction was under way and where all village women gathered twice a day to fetch water. She then accompanied women from the day's target village back to their village, traveling, like them, by foot or donkey. Instruction ended in the early afternoon when Ansell accompanied the women on their trip back to al-Baghari for another load of water.

The first visit to each village was crucial to gaining genuine consent for the hygiene instruction. As entry protocol, on entering each village Ansell met with a "responsible man" and explained her purpose in coming, passing around the visual materials and playing the tape cassette while the men were still around.

The simple presence of a newcomer drew crowds. During the early visits to a village, the cassette tape, drawings, and photographs served primarily to capture the villagers' attention and interest. Later they served increasingly as reminders and reference points for longer, more open-ended discussions.

On Ansell's last visit to each village, she gave the local assistant a copy of the tape cassette to play for people who had been out of the village during the campaign and to remind herself and others about improving hygiene and sanitation. The local assistants thus became a means of continuation and reinforcement of the campaign messages.

#### 4.5 Conclusions, Recommendations, and Lessons Learned

The campaign was very effectively implemented. It was successfully launched, the ad hoc selection and "on-the-job training" of local assistants was successful, and educational sessions in the eight villages proceeded well. Although final evaluation of the campaign impact has not been conducted, the following useful conclusions emerge from the implementation process.

##### 4.5.1 Linking Construction and Hygiene Education

The idea of linking hygiene education to water project construction activities was and remains a good one. The construction activities clearly provided a convincing reason for the campaign and also helped direct villagers' attention to the campaign. Nevertheless, the campaign and construction did not end up as closely linked as intended. In part the potential drama and excitement were dissipated because of construction delays. More importantly, since al-Baghari Spring serves many villages, inhabitants of no one village thought of it and the unfolding project as "theirs."

If the potential drama of construction activities is to be used to focus attention on hygiene education, persistent effort at coordination is required. This experience in Wadi Ayyan also suggests that certain kinds of water projects can be more effectively linked to hygiene education than others. Water project construction activities at a water source that is used by several communities and regarded as "public" (as is the al-Baghari Spring) may not be as easily harnessed for educational purposes as one that is regarded as "belonging" to a single village.

#### 4.5.2 The Structure and Tempo of the Campaign

The way a campaign and materials are initially presented is crucial to their acceptance. Official sanction, and having papers on one's person to confirm it, was essential in Wadi Ayyan.

Local assistants should be used whenever possible. The campaign would have been impossible without them. It also makes little sense to conduct a short campaign and leave behind no potential for continuation and reinforcement.

Small group sessions and individual house-to-house visits were most effective. The ideal number of listeners was about five. Larger groups increased the likelihood of multiple unrelated, conversations and chatting. It also increased the likelihood of peer pressure, often leading participants to attribute illness to fate rather than see the connection with poor hygiene.

Cleanliness and health play only a small part in a woman's concerns. People can concentrate on health and hygiene for only so long. Thus it is necessary for the health educator to be patient and flexible. Trying to keep to an efficient schedule only leads to frustration and may be interpreted by villagers as bad manners or worse. The health educator must realize that villagers consider him or her first and foremost a guest in the village and must behave accordingly (see also Sevagram Medico Friend Circle 1983).

#### 4.5.3 Instructional Materials

Tapes were used as instructional materials because project staff knew the limitations of visuals. Using tapes and visuals together improves the effectiveness of either alone, but requires the educator to fill in any gaps with words and examples.

Tapes have a great potential for communicating health messages to illiterate villagers. They are flexible and efficient, can be turned off and on at will, and are less obtrusive than other media. In Wadi Ayyan, the cassette was the most readily accepted and effective of the instructional tools. Once the responsible men in the village had listened to the tape they had no qualms about allowing the Save the Children health educator to make house visits using it. All the local assistants and other village women were comfortable with it.

A clear advantage of a cassette tape over visual materials is that it does not depend so heavily on discussion by a trained health educator. Tapes are thus an effective way of making sure the information is accurate if the tape is passed on for use by a mid-level technician or, as in Wadi Ayyan, by local assistants. Pictures are far too open to misinterpretation.

The messages should be few (only three to five), and they should be absolutely relevant to the most immediate hygiene problems (e.g., open sewers, animals in the kitchen). It is important to resist the temptation to cram onto the tape everything that could be said.

A short tape (like that used in Wadi Ayyan--only seven minutes) has advantages. It does become boring, however, after several hearings. A next step might have been to produce not one but a series of tapes. These materials could also be used during weekly markets along with a booth providing the tools for behavior change encouraged by the instruction, e.g., nail and tooth brushes and soap.

Tapes should be as interesting as possible--entertaining as well as informative. The speakers should be placed in a series of dramatized, culturally-relevant situations that present opportunities to discuss hygiene issues. The same speakers should be used throughout the series and should be given locally appropriate names. If the messages require action by women, the main speaker should be a woman; if the message is aimed at men and requires "community" action, a male speaker should be used. The tape should be in the dialect of the country, but it is not essential that it be in the dialect of the local district. For example, because the tape used in Wadi Ayyan was well prepared, the urban Sana'a dialect did not distract the villagers.

In addition to homes, other places where a health educator can expose people to recorded hygiene messages are water collection points, tea shops and eating places on market day, schools, and private social gatherings. This can be done with or without the hygiene educator present.

The visual materials used in Wadi Ayyan were all somewhat problematic in their openness to misinterpretation. For this reason, they could not be effectively left behind in a village. The person using them must be trained to present and interpret them.

One should not rely heavily on visual aids for communicating with illiterate audiences. The strength of visual aids is in interesting people enough to give the health educator a good start in his or her oral messages. Thereafter oral communication is far more effective than visual presentations in communities where history and news are still passed on primarily by word of mouth.

The colored drawings used in Wadi Ayyan were effective in some regards. They were the most effective tool for initially capturing the villagers' attention and also proved effective for introducing a topic. They did, however, require careful oral elaboration by a person knowledgeable in hygiene.

In a community like Wadi Ayyan, pictures should be of an as-neutral-as-possible older woman. Unlike a younger woman, she need not be veiled and her clothes do not have to meet local esthetic norms. The context should be rural without being too specific.

Photographs were the least effective of the media used in Wadi Ayyan. They too required careful oral elaboration. Despite careful attempts to avoid representation, the photographs evoked the most frequent criticism on the grounds that "all visual representation is forbidden in Islam."

#### 4.5.4 Communication with Women and Sanction by Men

Communication with the women is essential, although men in the community must be involved in planning, sanctioning, and other such aspects of the activity. Women health educators clearly facilitate the process and in some cultures may be essential.

A factor critical for success in the Yemen project was that the hygiene education program was closely tied to a felt need in the community as well as to the construction phase of a water project. The entire project was action-oriented in the sense that the village population knew that a water project was underway and they were very pleased with all the activity. The fact that Save the Children was "experimenting" with an effective approach may have been realized by some of the population but did not detract from its acceptability.

## Chapter 5

### LESSONS LEARNED: INGREDIENTS FOR SUCCESSFUL HYGIENE EDUCATION

The projects in Togo, Sri Lanka, and Yemen differed in significant ways. One was seven years in duration, another only eight weeks. One reached out to over a thousand villages, another to only eight. One took place in an "advanced" developing country, another in one of the poorest and least developed countries. One project was implemented through government ministries; the other two were products of non-governmental organizations.

Nevertheless, all three projects had certain things in common. Some of these shared characteristics made for success across the board. On the other hand, some of the characteristics that made for success in one environment were not possible or might not have been appropriate in another. This serves to re-emphasize that while many principles are constant from one country and culture to another, solutions must always be worked out in terms of local conditions.

What was learned in these three case studies that can be taken as guidance for hygiene education elsewhere? Some of the lessons are important for all health education, including hygiene, others are specific to hygiene education. Some deal with linking hygiene education with construction activities, and others with administrative problems that must be addressed when construction activities are lodged within ministries other than health.

#### 5.1 Preconditions: Essential Elements at the Planning Stage

In each of the three cases, certain conditions existed, or were achieved, that set the stage for effectively-implemented hygiene education. These included:

##### 5.1.1 Conviction of the Need for Hygiene Education

Someone or some group of people in an influential position must understand the need for hygiene education. In all three cases, personnel in at least one of the institutions sponsoring the water supply project were convinced that educational outreach to the intended beneficiaries was essential for achieving the desired health impact. In the Sri Lanka case, it was clearly the donor that was convinced and insisted. In Togo, the USAID health officer, among others, was convinced of the need. In Yemen, Save the Children proposed the idea.

##### 5.1.2 Ability to Overcome Initial Resistance

Resistance to hygiene education is often based more on practical or bureaucratic considerations than on opposition to hygiene education in principle. In these three cases, where there was resistance to the idea of hygiene education, those who believed in the need for it had sufficient conviction, and funding clout, to overcome the initial resistance.

In Sri Lanka, for example, both the National Water Supply and Drainage Board and the Ministry of Health agreed that health education was needed but, for bureaucratic reasons, did not want to take on this responsibility. The health education program was finally agreed upon because the donor insisted, after which many of the Sri Lankan officials became enthusiastic. In Yemen, the local village elders (men) were initially unenthusiastic, stating that hygiene education would be a waste of time because of the villagers' illiteracy and poor living conditions. Ultimately they too were persuaded by the donor to support the effort and some of their wives became health education assistants. It is not uncommon for people, whether in a big government ministry or a small rural village, to resist new ideas. In both countries, however, the promoters of hygiene education were innovative in finding ways to overcome the initial resistance, and they succeeded.

## 5.2 Administrative Structure and Logistics

### 5.2.1 No One Type of Administrative Structure Guarantees Success

For implementing health education programs, both government agencies and non-government organizations have their pros and cons. These are the same as for any development activity. Working through government ministries is usually more cumbersome and slower than working through non-governmental organizations. It is usually possible to initiate hygiene education activities quite quickly through non-governmental organizations as was demonstrated in the Yemen case study. On the other hand, such organizations usually serve a smaller population, again, as in Yemen.

As for program sustainability, this depends also on other factors (e.g., personnel commitment, the health infrastructure in the country, involvement of grass-roots organizations, political stability, economic conditions, and so on). Thus, here too there is no hard and fast rule.

### 5.2.2 Creating an Appropriate Administrative Structure Where None Exists

Those who seek to provide hygiene education must be flexible and innovative in looking for or creating an appropriate administrative structure for carrying it out. This is illustrated by the Sri Lanka case where the government bureaucracy responsible for the "hardware" component of the piped water project (the National Water Supply and Drainage Board) was not eager to take on health education. Nor was the Ministry of Health eager to provide health education on behalf of a different government bureaucracy. The problem was eventually solved by bringing in two non-governmental organizations to create an appropriate administrative structure through which a health education program could be carried out.

### 5.2.3 Willingness to Allocate Funds for Hygiene Education

Few, if any, under-funded "afterthought" development programs ever achieve anything of lasting value. Adequate funds must be budgeted to make things happen and to happen well enough to have a positive impact. All too often in

the water supply field, hygiene education has been added on at the last minute and assigned insufficient funding with the result that, even when water supply and sanitation facilities are well maintained, people continue their old unsanitary water-use habits because they do not know or understand the benefits of new ones.

The Togo project is a model in this regard. In this project, health education (along with community participation) was designed as part of the project at the outset and allocated a budget of approximately 25 percent of the total project cost.

#### 5.2.4 Personnel with Community Development Skills and Commitment

Regardless of the type of administrative structure, the organization responsible for hygiene education must have personnel who are skilled in working with local communities or at least knowledgeable about and committed to the need to do so. In all three case studies, community-oriented personnel at the management level were a key to successful implementation. Such personnel do not need to be the rare charismatic leader, but must be able to do three things:

- ♦ Make appropriate managerial decisions,
- ♦ Understand what makes communities "tick," and
- ♦ Inspire and help those working in the community to do so effectively.

In the Togo project, for example, the two U.S. long-term technical advisors responsible for the entire project had outstanding community development expertise. The USAID health officer and his Togolese counterparts were also committed to community resource development. In the Sri Lanka case too, the health education program was headed by a Sri Lankan well-known and respected in the communities for his energetic leadership. The director of the Yemen campaign was also skilled at working in households and communities.

### 5.3 Laying the Groundwork

#### 5.3.1 Conducting a Baseline Study

Educational messages are meaningless if they are not grafted onto what people already know and do (Nichter and Nichter 1986). A baseline study of prevailing beliefs and practices related to water collection, storage, and use is thus critical for designing hygiene education messages. A baseline study, if appropriately done, also provides an excellent opportunity to establish rapport with community leaders and members and gain their support. In Sri Lanka, for example, the baseline study was used as an opportunity to interview local political leaders.

In the Togo project, a baseline study was done in a sample of 52 villages. Baseline studies do not always need to be so extensive, however. Depending on the size of the project, more rapid and more informal studies may be more appropriate. In Sri Lanka, where both the project and population to be served were smaller than in Togo, several dozen randomly selected families were interviewed in each community. In Yemen, where the population was even smaller and the time span only three months (in contrast to seven years in Togo), informal baseline interviews were held by the anthropologist-hygiene education director. In each case, the baseline study or interviewing was critical to the successful design and communication of hygiene education messages.

An outline of questions to ask in a baseline study is presented in Appendix B, "Assessing Communities." The types of data required in a baseline study are also outlined in Appendix A of this report.

### 5.3.2 Gaining the Support of Local Political Leaders

The support of local political leaders is important in all cases. In villages not only is the official approval of the local political head necessary, it is also a protocol as well as common courtesy. In addition, in many communities people do not give much weight to what outsiders tell them unless they believe it has the genuine support of local political leaders. This is especially true in authoritarian communities. Studies from Indonesia, for example, reveal that villagers did not take advantage of a particular health outreach program "because the village chief did not tell us to do so." (Singarimbun et al. 1986.)

In the Yemen project, the donor held a series of meetings with the villages' "responsible men" before proceeding to meet with the women who were the target of the hygiene education campaign. Getting the approval of male leaders in order to work with women is especially important in many conservative communities, not only those that are Muslim. In the Sri Lanka project, when staff began recruiting health educators they made concessions to local political authorities. This did not compromise quality, but won important endorsement.

### 5.3.3 Recruiting Appropriate Persons as Health Educators

Appropriate criteria for a health educator vary from one culture and country to another, but they usually have to do with place of origin, sex, education, and employment status.

Health educators must come from the local community or nearby or they must present their messages through or with the assistance of local people. Implementation of the Sri Lanka health education program was successful in part because the health educators came from the communities they served. In Yemen, the campaign could not have been conducted without the local assistants from each of the villages. Use of local personnel is also important for program sustainability and creates a cadre of persons who can continue to educate fellow villagers in improved water-use habits long after the donor assistance has ended.

In conservative cultures it is almost essential that health educators be women. In other cultures where sex roles are less rigid, men can be effective health educators too. Nevertheless, in no country can men talk freely with women about personal hygiene (for example, defecation or menstrual discharge) or enter a woman's home as freely as another woman can. In Yemen it would have been impossible for a man to gain access to the women as did the female health educator.

Furthermore, men usually do not have the first-hand experience of water collection, storage, and use that women have in most rural communities. Where men are recruited as health educators, this lack of experience must be compensated for in the training process.

#### 5.3.4 Task-Focused Training for the Health Educators

Training programs no longer consist of pedantic lectures delivered at community health workers whose responsibility is then to motivate rural men and women or the urban poor to change their behavior. Instead, training must be lively and participatory and center on tasks the health educator trainees will carry out in their daily work. In preparing the curriculum, new information must be presented to these trainees in terms of what they already know--just as they in turn must graft their messages onto the existing knowledge of the target communities and households.

In all three case-study projects, the training received by the local personnel preparing to work as health educators was practical. In Togo, for example, training centered on problem-solving and everyday tasks the trainees were to be carrying out.

Training should be flexible and responsive to needs that arise during implementation. Provision for "incremental training" should be built into project plans. In Sri Lanka, the initial training was supplemented by subsequent "in-service" training when it became apparent that community members were asking questions of the health educators that they had difficulty answering. Weekly meetings with the health education director also provided additional guidance to complement the health educators' initial training.

Training must include communication skills as well as substantive technical knowledge about water and hygiene. In both Togo and Sri Lanka, training included not just the substance of hygiene education but also communications skills for presenting it. Community relations was also a major focus of the training. This was one reason for the acceptance and success the health educators had in working with families in these two countries. In Togo training also focused on the principles and processes of community participation and community development. (See Appendix A for suggested curriculum content for hygiene education trainees.)

#### 5.4 Community Outreach

Community outreach is at the heart of hygiene education. This includes:

- ♦ Interacting effectively with community leaders;
- ♦ Interaction with and training of members of community organizations; and
- ♦ Well-planned educational sessions in homes and community gathering places with community members at large.

As health educators proceed to meet with community families, continued approval and legitimization by community leaders remains important. In the Yemen project, for instance, representatives of Save the Children got formal approval from the village heads at a large joint meeting of leaders from many villages in the area. Genuine support came, however, after the health educator arrived and began talking with the "responsible men" in each village, which led the way to talking to the women.

##### 5.4.1 The Role and Training of Community Organizations

In some communities, health education programs work through village committees (often referred to as village water committees, village health committees, or village development committees). Projects which work with an already-existing community organization are more successful than those which create new ones. Committees created by a project for the sole purpose of assuming responsibility for it seldom function except on paper (Pillsbury et al. 1985). The names of six village elders on a piece of paper does not constitute community participation.

Part of the Togo project's success was due to the fact that it worked with existing village groups as its first choice and only created new "village development committees" where development-oriented groups did not already exist. In addition, membership in the "village development committees" was by functional responsibility (e.g., president, secretary, treasurer, advisor) rather than simply names on paper without any designated responsibilities.

##### 5.4.2 Planning Educational Sessions in Homes and Community Centers

Cleanliness and health play only a small part in a villager's concerns, and village women are usually very busy. Thus in Sri Lanka, the health educators generally went to homes and arranged their educational sessions around the daily schedule. By conducting health education in recipients' homes, the health educators also established credibility with entire families, men as well as women. In Yemen, the lead hygiene educator actually began the day's educational sessions by meeting women at the local spring and accompanying them home with their water supply, discussing hygiene habits as they proceeded.

Flexibility in fitting health communication into the existing daily routine does not mean, however, that the content of the communication can be haphazard or piecemeal. It must be carefully prepared. Then it can be flexibly presented. In Yemen, for example, a set of culturally-appropriate audio-visual materials were carefully designed and took into consideration the difficulties of fitting hygiene education into daily routines--a constraint within which the campaign would have to operate.

Educational outreach in Togo was strengthened by the use of a "learning-process" problem-solving approach. Seeking to avoid lecturing at villagers about "the right way" to do things, project personnel encouraged villagers to identify local problems and then to find solutions themselves to the problems they had identified. That the information provided was tailored to specific target groups according to function and gender was an added advantage of this approach.

The extent to which educational messages focus only on hygiene or reach into other health issues depends on local conditions and the scope of the overall project. It is best to begin modestly, however, and expand the information conveyed based on initial community response. This assures that the information presented will be more in tune with community needs.

In Sri Lanka, for example, the health educators were trained to focus chiefly on hygiene at the outset and did so. Subsequently, when families began asking them for advice on other health matters, the project provided additional training for the health educators to enable them to expand their messages to other health issues. In Yemen, the hygiene campaign messages focused narrowly on a few limited topics. Had there been an ongoing program, new educational tapes would have been added.

The case studies below provide further details to assist in designing hygiene education activities. Excellent guidance is also presented in Appendix C, "How To Make Individual and Household Contacts Effective and Positive," and Appendix D, "How To Make Small Group Discussions Effective."

#### 5.4.3 Hygiene Education, Community Participation, and Construction

In Togo, hygiene education was linked to an overall strategy for community participation which was planned during project design. This contributed directly to successful implementation. Community participation was voluntary; communities chose to take on or reject the project. If they chose to participate, in most cases health education and community development activities were carried out concurrently with construction.

In Yemen too, the hygiene education campaign proceeded concurrently with water system construction work. This was good, but linkages between the construction and the hygiene campaign should have been stronger (see case study below). Project staff need to think carefully about how to use construction activities to their maximum potential as an opportunity for educating community members to use the new water supply to improve their health and that of their children.

## 5.5 Monitoring, Evaluation, Support, and Mid-Course Adjustments

Ongoing monitoring and mid-course adjustment are essential for success. This occurred in all three projects. In the Togo project, the 120 field agents attended planning and evaluation workshops four times a year to assess status and plan upcoming activities.

In the Sri Lanka project, there was ongoing progress evaluation and discussion of issues. The health education director met with all the health educators once a week to discuss and resolve problems as they arose. Such meetings provide both technical and equally-important psychological support to health or hygiene educators. A major mid-course change was the broadening of the information health educators were communicating to their clients. This health information went beyond hygiene alone and required giving the health educators additional training.

## **BIBLIOGRAPHY**

## BIBLIOGRAPHY

- Ansell, Christine, and Robert Burrowes. 1981. Communicating Hygiene/Sanitation Messages to Villagers: An Experiment in Wadi Ayyan. Sanaa: American Save the Children/Yemen.
- Blum, Deborah. 1983. "Measuring the Impact of Water Supply and Sanitation Investments in Diarrhoeal Diseases: Problems on Methodology." International Journal of Epidemiology Vol. 12, No. 3, pp. 357-365.
- Briscoe, J. 1984. "Water and Health: Selective Primary Health Care Revisited." American Journal of Public Health 74:1009-1013.
- Burrowes, Robert. 1981. Report on the December 1980 Small Non-Pump Water Project Training Course. Sanaa: American Save the Children/Yemen.
- Donnelly-Roark, Paula. 1987. New Participatory Frameworks for the Design and Management of Sustainable Water Supply and Sanitation Projects. WASH Technical Report No. 52. Arlington, VA: WASH and UNDP/Prowess.
- Eng, Eugenia; John Briscoe; and Anne Cunningham. 1987. Community Participation in Water Supply Projects as a Stimulus to Primary Health Care. WASH Technical Report No. 44. Arlington, VA: Water and Sanitation for Health Project.
- Esrey, S.A.; R.G. Feachem; and J.M. Hughes. 1985. "Interventions for the Control of Diarrhoeal Disease in Young Children: Improving Water Supplies and Excreta Disposal Facilities." Bulletin of the World Health Organization 63:757-772.
- Esrey, S.A., and J.P. Habicht. 1986. "Epidemiologic Evidence for Health Benefits from Improved Water and Sanitation in Developing Countries." Epidemiologic Reviews 8:117-128.
- Feachem, R.G. 1984. "Intervention for the Control of Diarrhoeal Diseases in Young Children: Promotion of Personal and Domestic Hygiene." Bulletin of the World Health Organization 62:467-476.
- McJunkin, F.E. 1983. Water and Human Health. Washington D.C.: Agency for International Development.
- Nichter, Mimi. and Mark Nichter. 1986. "Health Education by Appropriate Analogy: Using the Familiar to Explain the New." Convergence 19(1):63-71.
- Okun, Daniel A. 1987. The Value of Water Supply and Sanitation in Development: An Assessment of Health-Related Interventions. WASH Technical Report No. 43. Arlington, VA: Water and Sanitation for Health Project.
- Pillsbury, Barbara; David Nicholas; and Arthur Goldsmith. 1985. Community Organization. Washington D.C.: Primary Health Care Operations Research (PRICOR) Monograph No. 3.

- Roark, Phil; Judi Aubel; Kossi Hodin; Okalie Kankarti; and Ayc Marfa. 1988. Final Evaluation of the USAID/Togo Rural Water Supply and Sanitation Project. WASH Field Report No. 228. Arlington, VA: Water and Sanitation for Health Project.
- Sevagram Medico Friend Circle. 1983. "Health Is Not the Villager's Chief Priority." World Health Forum 4:365-367.
- Simpson-Hebert, Mayling. 1987. Hygiene Education Strategies for Region 1 for the Ministry of Public Health in Thailand. WASH Field Report No. 210. Arlington, VA: Water and Sanitation for Health Project.
- Simpson-Hebert, Mayling, and May Yacoob. 1987. Guidelines for Designing a Hygiene Education Program in Water Supply and Sanitation for Regional/District Level Personnel. WASH Field Report No. 218. Arlington, VA: Water and Sanitation for Health Project.
- Singarimbun, Masri, Kim Streatfield, and Ira Singarimbun. 1986. "Some Factors Affecting Use of Childhood Immunization." Canberra: Australian National University, International Population Dynamics Program, Child Survival Research Note 7CS.
- Walsh, Julia A., and Kenneth S. Warren. 1979. "Selective Primary Health Care: An Interim Strategy for Disease Control in Developing Countries." New England Journal of Medicine 301(18):967-974.
- Wolman, A. 1975. "Environmental Sanitation in Urban and Rural Areas: Its Importance in the Control of Enteric Infections." Bulletin of the Pan American Health Organization 9:157-159.

**APPENDIX A**

**Processes and Content of  
a Hygiene Education Program**

## APPENDIX A

### Processes and Content of a Hygiene Education Program

A successful rural water system is one which is actively supported by the community. Improved health, through improved water and sanitation projects, requires personal hygiene and community sanitation, as well as clean, plentiful water. The education process, therefore, must be one that will help people understand how the handling of water and the management of the system affects the quality of their lives.

#### Objectives

1. Enhanced community capability to manage and maintain improved systems.
2. Improved water-related health and sanitation practices in village households.

These objectives can be met through:

- improved personal hygiene and environmental sanitation
- greater care in collection, transport, and storage of water
- a reduction in water-related diseases
- management of animals at water points
- improved safety and convenience for water drawers
- productive use of wastewater
- development of self reliance and a sense of community responsibility for system maintenance
- community skills for system maintenance.

#### Activities

As a basis for achieving the above objectives, the following are required:

- village surveys
- staff recruitment and training of extension agents (men and women)

To understand village perceived needs and practices, identify areas of program interest, including information upon which to base hygiene programs, the following types of data should be collected through observation and discussion:

1. Water Usage

- ♦ Who collects the water?
- ♦ What is it collected in?
- ♦ What happens to the water at the source, en route home, in the house?
- ♦ How much is collected daily per household?
- ♦ How is it stored?
- ♦ Are water containers cleaned?
- ♦ How is water used? Drinking, cooking, bathing, washing clothes and dishes, cleaning, watering crops, and animals?
- ♦ How do people perceive the need for clean water?

2. Health

- ♦ What are the most common diseases for children and adults?
- ♦ How serious are they, e.g., frequency of deaths?
- ♦ How do people perceive ill health?
  - in relation to specific diseases
  - causes
  - remedies
  - prevention
- ♦ Where and what are the nearest medical facilities and personnel?
- ♦ Is there guinea worm? Shistosomiasis? Onchocerciasis? Malaria? etc.

3. Sanitation

- ♦ What are people's defecation practices?
  - Where do people defecate?
  - What are anal cleansing practices?
  - Do they wash their hands?
  - How do they dispose of babies' feces

- ♦ What are the cultural beliefs associated with defecation?
- ♦ What kind of trash does a household produce?
- ♦ How do they dispose of it?
- ♦ Are there animals in or near houses?
- ♦ Are there any mosquito breeding areas? Where? How many?
- ♦ Is food covered?
- ♦ Is water covered?
- ♦ How is it stored and drawn (dipper)?
- ♦ Do people wash food before cooking it?

Training of extension agents and water and health committees should be as follows:

1. Skill areas for extension agent training
  - ♦ Community participation
  - ♦ Communications skills
  - ♦ Non-formal adult education
  - ♦ Curriculum development for water and sanitation
  - ♦ Use of lesson plans and visual aids
2. Curriculum for water committees
  - ♦ Committee procedures
  - ♦ Project rules and regulations
  - ♦ Routine maintenance and minor repairs
  - ♦ Finances and bookkeeping
  - ♦ Village sanitation
  - ♦ Health and sanitation

### 3. Curriculum for health committees

- ♦ Germs, their transmission and illness
- ♦ How to avoid germs through personal hygiene
- ♦ Hygienic handling of water
- ♦ Care of water sources
- ♦ Water in the kitchen
- ♦ Other uses of water in the home
- ♦ Water as medicine
- ♦ Traditional and modern methods of water purification
- ♦ The relationship between water and diarrhea
- ♦ The relationship between water and malaria
- ♦ The relationship between water and guinea worm

#### Monthly Mini Workshops

Two to three days of every month extension agents should meet to:

- Review and evaluate past month's activities
- Plan new activities
- Develop extension materials
- Learn new techniques
- Draw up a monthly workplan.

#### Evaluation

The main objective of a water supply and sanitation hygiene program is behavioral change. This is measured through observation and subjective questioning. The following are key indicators effective to the management and maintenance of community water supply and sanitation systems:

- Is the water supply and sanitation system working?
- How do the committees conduct their business?
- How efficient are the committees?

- How well are water collection areas maintained?
- How well is excess water being drained for irrigation of gardens, etc.?
- Do drawers of water clean their containers before filling them with water?
- Do families store and use water under hygienic conditions?
- Do families adopt routine personal hygiene practices?
- Do families adopt routine food hygiene practices?
- Do families adopt routine household hygiene practices?

APPENDIX B

**Assessing Communities**

From: WASH Field Report No. 218

Guideline for Designing a Hygiene Education Program  
in Water Supply and Sanitation for Regional/District Level Personnel

APPENDIX B

**Assessing Communities**

(Background for Workshop Leaders)

The information for this quick survey about communities should be obtained primarily from social scientists from local institutions who are knowledgeable about the communities. It provides a backdrop against which the effectiveness of software programs can be assessed.

Checklist

- |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Settlement pattern of the population.              | <input type="checkbox"/> Size of communities<br><input type="checkbox"/> Spacing between communities<br><input type="checkbox"/> Social and economic links between communities<br><input type="checkbox"/> Migration and mobility<br><input type="checkbox"/> Roads linking this community to others                                                                                                             |
| 2. Demographic factors influencing hygiene education. | <input type="checkbox"/> Major diseases present<br><input type="checkbox"/> Mortality and morbidity patterns<br><input type="checkbox"/> Infant mortality<br><input type="checkbox"/> Number of children born per female<br><input type="checkbox"/> Percent of households headed by females<br><input type="checkbox"/> Migration patterns of males<br><input type="checkbox"/> Number of people in a household |

Checklist

- |                                                                                     |                                                                                                               |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 3. Religious and ethnic beliefs that influence the design of the program.           | <input type="checkbox"/> Water practices, health practices                                                    |
|                                                                                     | <input type="checkbox"/> Sanitation practices                                                                 |
|                                                                                     | <input type="checkbox"/> Social distinctions between community groups                                         |
|                                                                                     | <input type="checkbox"/> Religious authorities                                                                |
|                                                                                     | <input type="checkbox"/> Time and money expenditures on religious practices                                   |
|                                                                                     |                                                                                                               |
| 4. Traditional water rights and beliefs.                                            | <input type="checkbox"/> What constitutes ownership of water rights?                                          |
|                                                                                     | <input type="checkbox"/> Who can hold water rights?                                                           |
|                                                                                     | <input type="checkbox"/> Who has access to water? (streams, well, spring)                                     |
|                                                                                     | <input type="checkbox"/> Are water rights single- or multi-purpose?                                           |
|                                                                                     | <input type="checkbox"/> Any beliefs relating to spiritual ownership of water sources or water contamination? |
|                                                                                     |                                                                                                               |
| 5. What services have involved hygiene education and what can be learned from them? | <input type="checkbox"/> Water                                                                                |
|                                                                                     | <input type="checkbox"/> Sanitation                                                                           |
|                                                                                     | <input type="checkbox"/> Primary health care; clinic/ dispensary                                              |
|                                                                                     | <input type="checkbox"/> School                                                                               |
|                                                                                     | <input type="checkbox"/> Rural development/agriculture                                                        |

Checklist

6. What is the community's economic base?  
When is cash available?
- Agriculture--subsistence, cash?
  - Industries, crafts?
  - Wealth and savings
  - Family land holding
  - Animal stocks
  - Land tenure
  - Marketing outlets
  - Expenditure in cash/kind
7. What is likely to be the community's willingness and ability to pay for water supply and sanitation?
- Amount and income reliability
  - Seasonal variations
  - Household variations
  - Payment for other community services
  - Attitude toward paying for water
  - Other cash purchases and expenses
  - Other forms of payment--barter, community work
8. What levels of education can be expected?
- For men
  - For women
  - Different age groups
  - Literacy (languages?)
  - Ability to compute
  - Ability to read technical drawings

Checklist

- |                                                                                            |                                                                                                    |
|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 9. What rights and obligations exist between members?                                      | <input type="checkbox"/> Inheritance patterns                                                      |
|                                                                                            | <input type="checkbox"/> Obligations to leader                                                     |
|                                                                                            | <input type="checkbox"/> Obligations for community service                                         |
|                                                                                            | <input type="checkbox"/> Credit rights                                                             |
|                                                                                            | <input type="checkbox"/> Access to resources                                                       |
|                                                                                            |                                                                                                    |
| 10. Access to media.                                                                       | <input type="checkbox"/> Radio (stations listened to)                                              |
|                                                                                            | <input type="checkbox"/> Films                                                                     |
|                                                                                            | <input type="checkbox"/> Pamphlets                                                                 |
|                                                                                            | <input type="checkbox"/> Local plays, drama                                                        |
|                                                                                            | <input type="checkbox"/> Newspapers                                                                |
|                                                                                            |                                                                                                    |
| 11. Are there major social and cultural differences within the community?                  | <input type="checkbox"/> How can the poorest be included?                                          |
|                                                                                            |                                                                                                    |
| 12. What types of associations exist, and who are the best leaders for different messages? | <input type="checkbox"/> How to identify opinion                                                   |
|                                                                                            | <input type="checkbox"/> Informal and formal leaders                                               |
|                                                                                            | <input type="checkbox"/> How to keep leaders motivated                                             |
|                                                                                            | <input type="checkbox"/> How to ensure they are accepted                                           |
|                                                                                            | <input type="checkbox"/> Are there leaders who created a gap between themselves and the community? |

## Checklist

13. Aspects of community decision-making.
- Traditional
  - Who is the best person in the community to introduce a new idea/project?
  - Can women be involved?
  - Formal/informal decision-making patterns
  - Linkages between community decision making and higher level policy and decisions
14. What has been the role of women, and what is its potential?
- The position of women in the community
  - Do they participate?
  - How many?
  - Their role in family decisions
  - What is their role in health care?
  - Women leaders
  - Members of committees
15. Health related attitudes and practices
- Who provides traditional and modern care?
  - How can traditional health care practitioners be encouraged to expand their skills/messages?
  - How do people perceive the role of water and sanitation in health?
  - Attitudes toward infant mortality.

Adapted from Whyte, Anne. Guide for the Design of a National Support Programme for Community Education and Participation in Water Supply and Sanitation. The Hague: International Reference Centre for Community Water Supply and Sanitation, 1983.

APPENDIX C

**How to Make Individual and Household Contacts  
Effective and Positive**

From: WASH Field Report No. 218

Guidelines for Designing a Hygiene Education Program  
in Water Supply and Sanitation for Regional/District Level Personnel

## APPENDIX C

### How to Make Individual and Household Contacts Effective and Positive

Home visits and individual or family contacts require careful planning and implementation. Such visits to the village or the family, for providing information, motivation and education, for giving reassurance or psychological support, or for building up relationships. Whatever the purpose may be, attention to the following essential features will contribute to the effectiveness of the visits.

#### Planning for the visit

1. Study the records of the household or consult with friends to learn as much as possible about the individual or family before the visit.
2. Make notes or be prepared in advance on probable problems to be discussed during the visit.
3. Know the community resources and facilities available so that referral, if needed, can be made to the proper agency on problems in which the family is interested.
4. Check the scientific information necessary for the purpose of the visit.
5. Fix the time and date of the interview with the respondents or at least give them advance notice so that they expect you.

#### Approach to the individual or family

1. Introduce yourself and greet according to local custom.
2. Try to establish rapport with the individual or family. Rapport-building is an essential first step in gaining your acceptance, especially when approaching persons whom you do not know. Such rapport-building will be facilitated by revealing your knowledge of the family, talking about things they are interested in, revealing a willingness to serve, praising the interviewee for his accomplishments, and participating in some common activity.
3. Judge your length of stay by existing conditions. If the situation is convenient, avail yourself of it fully; if not, arrange a further visit.

### During the interview

1. Be conscious of the social and emotional forces at work within the interview situation and capitalize on them if they are in your favor.
2. Lead people to do the talking and cultivate the ability to be a good listener.
3. Accept that your role is not to make decisions for the sake of others. Try instead to create situations and opportunities by which the interviewee will be helped to arrive at decisions on his own.
4. Be sure about the basic ego needs of the individual, the satisfaction of which could help you to lead him to discuss your ideas and come to the most appropriate decisions.
5. Remember that communication takes place through nonverbal channels as well as through speech. One should be conscious of these other channels and adept in interpreting them with respect to the interview situation.
6. Refrain from sermonizing, moralizing, or rendering judgments before the full facts of the situation are understood.
7. Listen to the family's problems; gain confidence by showing a sincere interest in these problems and by helping to solve them to the maximum extent possible.
8. Commend family members for carrying out suggested measures or for other good practices concerning family health.
9. Try not to make too many suggestions during one visit.
10. Talk in simple language and give clear and correct information.
11. Use terms people understand.
12. Demonstrate whenever required.
13. Explain any literature you may give to the family.
14. Avoid clashes or arguments during contact. There are many ways in which one can express ideas contrary to those held by interviewees without offending their feelings.
15. Have faith in people and their ability to solve many of their problems.
16. Never make a promise that you know is not within your power to keep.

17. Help the interviewee to feel at ease and ready to talk.
18. Do not terminate the visit prematurely. In public health problems repeat visits are often necessary. Make plans for the next visit before leaving.

### Follow-up

During the interview certain decisions might have been taken that require follow-up action on your part. Attention to these is essential before you approach the person for the next contact.

Source: K. A. Pisharoti. Guide to the Integration of Health Education in Environmental Health Programmes. Geneva: World Health Organization, 1975.

APPENDIX D

**How to Make Small Group Discussions Effective**

From: WASH Field Report No. 218

Guidelines for Designing a Hygiene Education Program  
in Water Supply and Sanitation for Regional/District Level Personnel

## APPENDIX D

### How to Make Small Group Discussions Effective

1. Contact should be made with as many members of the group as possible, individually and prior to the meeting, to interest them in the problem proposed for discussion.
2. It is preferable to limit the membership to about 15-20 for group thinking. Care should be taken to include some leaders, innovators, and satisfied adopters in the group.
3. The date, time, and place of the meeting should be so fixed as to make it convenient for most members to attend.
4. Before the meeting starts, an effort should be made to ensure that everyone is comfortable so that the group will be relaxed and able to direct its thoughts to the topic being discussed. Introducing the members to each other is essential.
5. For a discussion it is best to seat people in a circle so that everyone can see the face and expression of every other person in the meeting.
6. At the outset of the meeting the group should select the leader, and recorder and decide on a schedule and procedures.
7. A good way to start a meeting is for the group leader to explain the problem for discussion.
8. All members of the group should be encouraged to participate by being recognized and praised for the part they play.
9. Speeches should be discouraged. The objective should be to elicit the views of as many individuals as possible.
10. The group may need pertinent information on the problem it is trying to solve. The educator should find out if someone in the group can provide the information needed. If necessary she or he may bring in resource persons from outside. The resource person should not make a speech but should simply impart the information that the group wants for its decision-making.
11. The discussions should be kept focused on the problem. There is bound to be a certain amount of digression occasionally, and a good leader will permit this, though not to the extent that people lose track of the main purpose of the discussion.
12. The discussion should be summarized occasionally to enable the group to focus on the subject and develop it further.

13. The leader should listen well and patiently and be careful not to impose a decision on the group. He should often make his contribution in the form of questions.
14. Members of the group are likely to express divergent opinions, but these should be integrated and conflicts resolved by pointed and humorous attitudes.
15. Group members should be willing to compromise, to admit their errors, and, on occasion, to yield ground so that the group can make progress toward solving the problem.
16. A group needs a recorder to produce summaries of the discussion and decisions. These summaries enable the group to see what it has accomplished from time to time.
17. Leadership functions need not always be performed by one person in the group. Allowing others to function as group leader will enhance their status.
18. Occasional evaluation by the group of its own progress toward achieving its goals enables it to identify any deficiencies, to remedy them, and to make better progress. The presence of an objective observer who can report back to the group has been found useful. The observer is concerned with such problems as:
  - a. Are the objectives of the group clear and well laid out?
  - b. What is the motivation of the group?
  - c. Is the group too leader-centered?
  - d. Are the leadership functions properly discharged?
  - e. How hard is the group trying?
  - f. Are the interests of members sustained?
  - g. Is the group cohesive?
  - h. Is communication open within the group?
  - i. Does the group have the information it needs to solve problems?
  - j. What progress is being made in solving the problem undertaken?

Source: K. A. Pisharoti. Guide to the Integration of Health Education in Environmental Health Programmes. Geneva: World Health Organization, 1975.