



**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 1001
Arlington, VA 22209-2171 USA

Telephone: (703) 243-8200
Fax (703) 525-9137
Tele: WUI 64552
Cable Address WASHAID

THE USAID / CARE

**COMMUNITY WATER PROJECT IN HAITI:
AN ASSESSMENT OF USER EDUCATION**

WASH FIELD REPORT NO. 258

JUNE 1989

The WASH Project is 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.

Prepared for
the USAID Mission to the Republic of Haiti
WASH Task No. 021

WASH Field Report No. 258

**THE USAID/CARE COMMUNITY WATER PROJECT IN HAITI:
AN ASSESSMENT OF USER EDUCATION**

Prepared for the USAID Mission to the Republic of Haiti
under WASH Task No. 021

by

May Yacoob, Ph.D., H.S.A.

June 1989

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

TABLE OF CONTENTS

| CHAPTER | Page |
|--|------|
| ACKNOWLEDGMENTS | iii |
| ACRONYMS | v |
| EXECUTIVE SUMMARY | vii |
| 1. INTRODUCTION | 1 |
| 1.1 Purpose and Scope of Assignment | 1 |
| 1.2 Project Summary | 1 |
| 1.3 Approach and Methodology | 2 |
| 2. FINDINGS AND RECOMMENDATIONS | 3 |
| 2.1 Findings | 3 |
| 2.2 Recommendations | 5 |
| 2.2.1 Strengthening User Education | 5 |
| 2.2.2 Implementing an Integrated User Education Approach | 5 |
| 2.2.3 The Initial Contact | 6 |
| 2.2.4 Negotiating a Contract | 6 |
| 2.2.5 Training Project Staff for Training of Trainers | 6 |
| 2.2.6 Institutions as Targets for Messages | 6 |
| 2.2.7 Expanding CAEP Capability | 6 |
| 2.2.8 Evaluation | 7 |
| 3. PROJECT COMPONENTS | 9 |
| 3.1 Community Organization | 9 |
| 3.1.1 Learning from Experience | 9 |
| 3.1.2 Role of SNEP: Diagnosis of a System Breakdown | 10 |
| 3.2 Hygiene Education Component | 11 |
| 3.2.1 Targeting Community Groups | 11 |
| 3.2.2 Female Promoters as Trainers | 12 |
| 3.2.3 Training Materials and Tools for Teaching Hygiene | 12 |
| 4. STRATEGY FOR COMMUNITY (USER) EDUCATION AND TRAINING | 15 |
| 4.1 Suggestions for Integrated User Education | 15 |
| 4.2 Activities for Implementing User Education | 15 |
| 4.3 Develop Capability of the Members of CAEPs and COQs to Train Community Members | 16 |
| 5. INTEGRATING THE CWSO PROJECT WITH CARE CHILD SURVIVAL PROJECTS | 19 |

CONTENTS (continued)

APPENDIX

| | | |
|----|---|----|
| A. | Scope of Work | 21 |
| B. | People Contacted | 25 |
| C. | CARE Project Evaluation Questions | 29 |
| D. | Content of Training for Members of the <i>Comités d'approvisionnement en eau potable</i> (CAEPs) and Local Plumbers | 33 |

ACKNOWLEDGMENTS

The assistance of Sheri Walters and Lewis Jasmin, both of CARE/Haiti, was invaluable. They brought extensive experience and knowledge of the area to this assessment and helped in the formulation of recommendations. Much appreciation is also extended to David Eckerson of the USAID Mission in Haiti for inviting the WASH consultant to take part in the assessment of the CARE community water supply project and to Peter Buijs of CARE/Haiti for the careful briefing he provided in Washington. In addition, the assistance of Teresa Sarai, the Activity Manager at WASH, is gratefully acknowledged as well as that of Bonnie Kittle, USAID/Haiti, during the writing of the report and the debriefing in Haiti.

ACRONYMS

| | |
|-------|---|
| CAEP | <i>Comité d'Approvisionnement en Eau Potable</i> (Water Users' Association) |
| CINEC | Community Integrated Nutrition and Education Centers |
| COQ | <i>Comité de Quartier</i> (Standpipe Committee) |
| CWSD | Community Water Systems Development Project |
| KAP | Knowledge, Attitudes, and Practices |
| MCH | Maternal and Child Health |
| RICHS | Resources in Community Health Education Support (project) |
| SNEP | <i>Service National d'Eau Potable</i> (Haitian National Water Agency) |
| USAID | United States Agency for International Development |
| WASH | Water and Sanitation for Health Project |

EXECUTIVE SUMMARY

It is evident that all the necessary components exist in the Haiti project for the implementation of a successful and integrated "user education" program including both community participation and hygiene education. The primary focus of the recommendations is, first, the strengthening of linkages between the components (i.e., community participation and hygiene education) and, second, tools and methods for bridging some of the gaps within components. The issue of sustainability of the user education activities following CARE withdrawal also needs to be addressed, and the findings and recommendations reflect CARE's thinking and planning for the ultimate objective of creating long-term community based institutions capable of training community members. (See Appendix A for Scope of Work)

Some of the specific recommendations for achieving a successful user education program are as follows:

- Merge community development and current user education components to "user education" intended to build capacity of community organizations;
- Integrate the community development and hygiene education activities so that user education becomes training for community organizations in management of improved sources;
- Reassess and redefine promoters' roles to become trainers of committees and institutional associations;
- Continue targeting institutions such as churches and schools to ensure that representatives of these institutions become trainers in improved hygiene behavior and that facilities be built into these institutions to be used for training in the proper use and care of improved facilities;
- Expand CAEPs' capability so as to ensure that CAEPs have the skills and resources required not only to manage their systems but also to train other community members.

Chapter 1

INTRODUCTION

1.1 Purpose and Scope of Assignment

At the request of the USAID Mission in Haiti, WASH fielded a consultant from February 6-16, 1989 to assess the "user education" component of the Community Water Systems Development Project (CWSD). The objectives of this assessment were to review the appropriateness of the CWSD user education strategies and approaches including observing institutional training sessions as well as the training of neighborhood committees and community members.

Special attention was to be given to the appropriateness of the overall approach in terms of sustainability and the level of detail required for user education messages.

The consultant was further requested to provide advice regarding the development of appropriate feedback mechanisms for use by the hygiene promoters in the field and to review and share ideas on overall community participation strategies used by the project, particularly by regarding the linkage between community participation and user education.

1.2 Project Summary

The CWSD Project implemented by CARE in Les Cayes, Haiti began in July 1984 and is scheduled to be completed by June 1990. Capped springs and gravity fed systems are constructed in communities with populations of 3,000 or more.

Initially 40 water systems were to be improved and/or constructed by January 1989, but this number was reduced over the life of the program. To date, 17 systems have been completed, 8 are under construction, and in the project's remaining year and a half of the project 10 more will be built.

The community organization component of the project has been implemented by seven "animateurs" (male promoters) and one female promoter hired and trained by CARE who are responsible for alerting the communities of the construction of water supply systems and recruiting local support and labor for construction. These male promoters are responsible also for the election by the community and the training of members of a *Comité d'Approvisionnement en Eau Potable* (water users' associations) which manages and maintains the systems.

Community hygiene education, done while the systems are being constructed, is the responsibility of eight *animatrices* (female promoters) also hired and trained by CARE. These promoters are responsible for election by the community of members of a *Comité de Quartier* (COQ--standpipe committee) made up of two women and one man. Whereas male promoters serve more or less as advance parties and facilitate the construction of the systems and move in and out of the communities during construction, the female promoters reside in the villages

where the systems are being built, sometimes for as long as a year. They organize meetings and workshops for community members and disseminate specific hygiene messages whenever the opportunity arises.

Many of the recommendations of the WASH mid-term evaluation in February 1987 have been implemented. Changes in CARE staff implementing the user education component have brought about changes that reshaped and strengthened this component. Since the mid-term evaluation CARE staff have also given a great deal of thought to issues of sustainability and the evaluation of the project.

1.3 Approach and Methodology

Initial meetings were held by the WASH consultant in Port-au-Prince with USAID and CARE staff. The methodology, findings, and recommendations were developed together with CARE staff Sheri Walters and Lewis Jasmin, who are responsible for community participation and hygiene education, respectively. Primarily, Ms. Walters and Mr. Jasmin served as major contributors to the strategy developed, and secondarily they served as resources.

The consultant then traveled to the CARE office at Les Cayes where over a five day period she held extensive discussions with CARE staff implementing the user education and community organization components. Field visits included observations of female promoters in the field and the training of the members of neighborhood standpipe committees (*Comité de Quartier*--COQs usually consisting of two women and one man). In addition, the consultant observed the election process of COQ members in Coteaux and the hygiene education of school children in Dubreil.

Currently, the community organization component of the project is done by male promoters who form and educate *Comités d'Approvisionnement en Eau Potable* (CAEP--Water User Associations) also made up of men. Community hygiene education, on the other hand, is done by the members of COQs and women promoters. The consultant spent about two days working with the community participation and hygiene education specialist identifying ways for integrating the two components into a more integrated user education approach. This report is, therefore, a combined effort which includes contributions of the hygiene education and community participation advisors.

At the request of the USAID mission, the WASH consultant was asked to look at how the CWSD project and the CARE Resource in Community Health Education Support (RICHES) project affect each other. CARE is currently considering the best ways to combine and coordinate the efforts of these two projects so as to provide a more accurate means of improving the health benefits of water supply and sanitation projects.

Due to unanticipated strikes and public holiday schedules, further time field visits were not made by the consultant. At the request of the Mission, she assisted in the drafting of guidelines for selection and preparation of community based water projects by other private and voluntary organizations in Haiti.

Chapter 2

FINDINGS AND RECOMMENDATIONS

2.1

Findings

1. General observations

It is evident that all the necessary components exist in the Haiti project for the implementation of a successful and integrated "user education" program including both community organization and hygiene education. The primary focus of the recommendations is the strengthening of linkages between the components (i.e., community participation and hygiene education) and, second, tools and methods for bridging some of the gaps within components. The issue of sustainability following CARE withdrawal also needs to be addressed. The findings and recommendations of this report reflect CARE thinking and planning for the ultimate objective of creating long-term community based institutions capable of training community members.

2. Project components

The community development and user education components are implemented as two separate activities. The community development component, until recently, had the responsibility of organizing construction crews. The user education component deals with hygiene behavior. The two sections work, for the most part, separately. One has promoters (mostly women, as mentioned above) to train community members in the hygienic use of the systems. The above-mentioned community development promoters (mostly men) organize water user committees (CAEPs).

3. Meeting targets

Pressure to reach coverage targets on time dominate this project, and the project has a limited time to complete all the necessary activities. The project cycle in a given community is 12-18 months and provides sufficient time for education and training. However, a relatively short preparation time is provided between site selection and the start of construction (approximately four months).

4. Community Institutions

Insufficient time has been allocated for the training of the CAEPs in the past and clarifying for them the difference between committees for constructing systems and community responsibility for ownership of systems. The management training program for CAEPs was only completed in June 1988 and experience with this approach is still limited.

Over the past few years, many of the standpipe committees have stopped functioning. CARE is currently assessing whether a different neighborhood structure could be more effective.

Additional improvements have taken place in late 1988. CAEP training has been divided into two phases: one to take place during early stages of construction, and the second after construction is done, thus making the training relevant to activities coming up in their community.

5. Hygiene Education: Approaches to change health behavior

Since the mid-term evaluation, the hygiene education component has trained a cadre of women promoters, and creative materials for specific hygiene messages have been developed. Methodologies for training of community members have also been developed. The hygiene education component has also expanded its activities to include school teachers and community religious leaders. Compared to many projects worldwide, the recruitment and placement of female hygiene educators in Haiti has not posed a problem. Female extension agents (promoters) live in the community where a system is being constructed for eight months to a year and are able to have continued and sustained interactions with community members throughout this time. What seems to be missing currently is a system whereby these promoters can base their instructions on feedback from the communities and their needs. In addition, too much time is spent by promoters themselves in an effort to deliver messages to anyone who will listen.

6. Hygiene Messages

Current baseline surveys implemented by community level promoters identify knowledge, attitudes, and practice which provide all the data needed to plan and evaluate hygiene messages. The only area in which promoters will require additional training is in observing hygiene behaviors. In this regard, when the oral-fecal chain is better understood by the promoters they will know what to look for in hygiene behavior.

The basic messages currently being disseminated (i.e., hand washing, appropriate disposal of fecal matter, and care of the water source) are very important and appropriate. However, the message regarding protecting water en route from source to households should be reviewed. If, as it seems, stones are being put into the carrying containers to keep the water from splashing, then messages need to address this specific behavior.

7. Sustaining utilization to ensure behavior change

Since the mid-term evaluation, funding has been cut for Service National d'Eau Potable (SNEP--Haitian National Water Agency) to build a provincial level operation and maintenance capacity. Beyond that of the community, SNEP does not have an O&M capacity. CARE is training an O&M team consisting of an engineer, a plumber, and a regional promoter. This team, working within SNEP, will be responsible for follow-up activities.

8. Learning by doing

CARE is now testing some new approaches which focus on strengthening community capacity to manage the construction of the water systems. They will be gradually tried out in two pilot sites.

2.2 Recommendations

The following recommendations are specific actions that can be implemented under the current user project. Experience developed in the course of their implementation will, no doubt, provide experiential basis for implementing future community-managed projects.

2.2.1 Strengthening User Education

If community management and system sustainability are to be the focus of CARE activities for the remainder of the current project, the community development and user education components should be merged as "user education". Collaboration between these two components is gradually increasing already so that the pilot and follow-on projects will result in their merger. The combined activities will lead to training and education within the community to manage and properly use the improved supplies.

2.2.2 Implementing an Integrated User Education Approach

To combine these activities within an overall user education component, the community development section will have to train its promoters to differentiate between construction of facilities and community institutions to sustain the systems. Work plans and activities will have to be developed to integrate community development and hygiene education. The responsibility of the community development promoters should not stop with the creation of the user associations. Nor should women promoters be limited to their roles of creating and training standpipe committees. Both groups of promoters need to be trained in how their roles and responsibilities feed into one another's. Again, this recommendation can be implemented through a simple workshop on team building at any time before the end of the current project. Even if CARE changes its strategy in the future, such an investment in existing manpower will doubtlessly improve an integrated approach in the future.

2.2.3 The Initial Contact

The initial assessment during the identification of villages to receive improved water systems should also include a user education specialist in addition to the engineer currently conducting the assessment. A user education specialist will be able to provide some insights into the interests and social characteristics of the population within a catchment area and will provide essential information for use in feasibility studies. This recommendation can be tried in pilot sites.

2.2.4 Negotiating a Contract

While the signing of contracts in WS&S projects is, for all intents, an exercise in ensuring donors receipt of community inputs, the process, when properly done, can provide important organizational skills in future projects.

Some form of a "contract" can be a very useful tool for educating communities. The mid-term evaluation suggested that prior to construction, an educational process be started through the signing of contracts between the project and the communities. This has already been implemented. The contract should outline roles and responsibilities of all parties. This contract should include the communities' responsibility to caring for the promoters.

2.2.5 Training Project Staff for Training of Trainers

The current number of 12-20 standpipe committees may be too high for one promoter to cover and needs to be reassessed. The role of the promoters should include training committees and institutional associations. Steps in this direction are already under way. In addition, a system for training, visits, and review of experiences has been developed (see section 4.3 on implementing the community management approach).

2.2.6 Institutions as Targets for Messages

CARE has recently revised its approach to churches and schools in water use and key sanitation practices. This will be strengthened if the project, with community support, builds standpipes and latrines near schools, churches, and market areas. The construction of these facilities should be used to educate students, church members, and market stall owners. In addition, when promoters train these institutional representatives to become trainers in hygiene behavior in the community, then the approach is more likely to become institutionalized in the community.

2.2.7 Expanding CAEP Capability

There is no doubt that the first objective of this project is to ensure that all required spare parts and tools are available and that CAEPs have the skills and resources required to manage their systems.

Because of the declining presence of SNEP in supporting operations and maintenance which is beyond the capability of community plumbers, CARE has taken on this responsibility. There is a continued need to develop approaches which will increase the capacity of the water associations or to develop private sector sources of O&M support. A cooperative has been suggested. Most of the water associations could donate some funds. A cooperative would be able to import materials without paying customs duty. In time it might be able to acquire the equipment necessary to support O&M functions that SNEP is supposed to provide at the provincial/regional level. Such a strategy, or an alternative, will need further consideration, and very careful institutional and financial analysis.

2.2.8 Evaluation

In March 1989 CARE staff will be undertaking a comprehensive evaluation of its Water Systems Development project. It is hoped that this evaluation will answer operational questions and lead to more effective community management strategies (see Appendix C for the evaluation questions). This evaluation, however, will not compare its findings to baseline data collected at the start of the project. This is unfortunate, for, even though this baseline survey was conducted in one community where the system is not now in operation, the baseline findings are general enough that they can be utilized as a basis for comparison. Some of the baseline studies, however, will be used for comparison in studies that will be conducted a year after system completion.

The evaluation should show the results of CARE's contributions and operations and the efficiency and effectiveness of the technological component and of the training in the development of community institutions. Through comprehensive participant observation, system use will be assessed. Specifically, data will be collected on expected behavioral changes resulting from hygiene education messages. Its focus is primarily on knowledge rather than practice.

Documentation of both the evaluation process and the analysis of the data collected will be important. The collection and analysis of qualitative data with regard to appropriate usage and management learning capacity are fairly recent in the water sector. The accuracy of such data has often been questioned. However, field experience has shown that quantitative data alone, i.e., counting the number of systems built, the number of users, etc., tells little about systems effectiveness.

As mentioned earlier, the women promoters have been trained to conduct baseline surveys. A simple survey is an excellent tool for detecting changes in knowledge only in response to specific hygiene education messages. Clear, intermediate behavioral change objectives need to be identified in relation to hygiene education messages, such as, for example, how many households have cleansing materials in the cooking area and outside a latrine. These intermediate indicators should be measured against pre-determined project objectives.

Chapter 3

PROJECT COMPONENTS

3.1 Community Organization

As the mid-term evaluation stated, the community development aspect of the CWSD project is remarkable in its accomplishments, especially given the context in which it functions.

The processes for electing members of the CAEPs are established and the committees are now both accepted by communities and recognized by Government. Until recently, during the implementation phase, the primary role of CAEP has been to organize construction crews, to raise funds, and to establish bank accounts for O&M during system construction.

Once the processes for community participation are established, CWSD project staff introduced other activities such as establishing an elected general assembly and user fee system which provide more appropriate educational and learning opportunities for CAEPs. Over the past year, members of the water association were trained in one-week courses in Les Cayes in management and their roles and responsibilities. From now on this training is being given in two phases: one during the first few months of construction and the second at the end of construction or just before its termination (see Appendix C for content of courses). All "Phase 1" training is given in the communities themselves

3.1.1 Learning from Experience

Since January 1989, more time is being given for education of community members in new sites before they elect members of COQs and CAEPs. The elected community general assembly manages the water systems. This ensures a still wider electoral base for the CAEPs and thus a basis for consensus. The CAEP will also elect and maybe train members of standpipe committees, thus creating a stronger linkage between the two parts of the institution. The standpipe committee members will also have an increasingly greater responsibility in ensuring collection of funds. This will broaden their role from organizing families for fountain cleaning to include financial responsibility. There is absolutely no doubt that the present responsibilities of the associations and committees can be expanded to include effective community education. Indeed, this will be the project's greatest challenge. Most specifically, it should ensure that education in hygiene and water system care and management is provided for all community members. Here, "management" means the ability of communities to integrate the care of improved systems into their own daily responsibilities. This does not mean that they can and should do everything themselves. Management means that they know when and how to turn to resources outside their community.

Based on numerous lessons learned with regard to community-managed water systems, CARE staff is using the pilot sites as a small, problem-solving pilot

project. It will assist in the design of the follow-on project which will concentrate primarily on smaller communities and use a variety of low-cost options. The pilot project includes a preparation time for communities of one year. More time will be spent up front clarifying the roles and responsibilities of communities and negotiating and assisting communities in carrying out their own feasibility studies.

3.1.2 Role of SNEP: Diagnosis of a System Breakdown

To ensure that the preconditions necessary for local communities to use improved sources over an extended time so that health benefits eventually accrue, the system to ensure operations and maintenance must be assured. In this project, two of the water systems constructed at the start of the project, Port Piment and Tiburon, broke down because of flooded rivers. This was caused by loss of watershed protection in recent years. Breakdowns in the water systems occurred at river crossings where pipeline was destroyed by the floods. These breakdowns occurred in 1987 in Port-à-Piment, in 1988 in Tiburon (hurricane Gilbert) and have not yet been repaired. The local CAEP wrote letters to SNEP and CARE and collected \$2,000. USAID contributed \$5,000 and the repairs are being planned.

The CARE Multi-Year Project Plan (1988) is cognizant of the fact that a regional operations and maintenance structure is needed to support the considerable investments made in construction of systems. The Multi-Year Project Plan reflects diminishing Government investments and limited SNEP resources to manage these investments during the first three and a half years of the project. Prior to the political events that took place in November 1987, CARE worked closely with SNEP to develop system management procedures intended to train the community water associations in the management and responsibility for the systems. Since 1987, many of the institution-building processes financed by PL 480 funds came to a halt. Since 1988, CARE, with USAID's approval, assumed responsibility for establishing a temporary regional O&M unit within the project.

In the absence of SNEP resources, CARE is preparing and training a regional team to carry out this function. The team, consisting of an engineer, a plumber, and a community development promoter will, eventually, become part of SNEP.

At present, CARE is the sole institution providing ledgers for bookkeeping, books for recording minutes at meetings, and receipt books, etc. CARE might consider supporting the formation of a CAEP cooperative or recruiting private entities capable of procuring materials and carrying out O&M functions which are beyond the capability of communities.

3.2.1 Targeting Community Groups

As mentioned above, the current hygiene education program, like all other components of this project, have all the critical pieces required to make it a success. As shown below, the staffing is in place, their training is being upgraded on a regular basis, and the methodologies, ideas, and materials are continuously being upgraded.

Institutions, primarily schools and churches, are the focal point of Haitian rural communities. Almost all social and economic activities begin in the churches and the schools. The teachers and preachers, therefore, are important behavior change agents. The leaders of these institutions are given the same information that promoters give the rest of community members. Workshops, materials, and methodologies will need to be developed with special appeal to such leaders. For example, ideas for sermons on water, hygiene, and community health can be formulated for church leaders. In addition, text books, cartoon strips, etc., can be provided to schoolteachers to help them teach improved hygiene behavior to students. Workshops bringing together leaders of each church to provide them with information on community health will be very useful. Such workshops should also be aimed at having church leaders develop materials for their congregation. These could be based on cultural hygiene habits and beliefs. Similar activities can be developed for school teachers.

The sanitation component, for which CARE is currently developing approaches for community acceptance and management, is the most important of hygiene messages. In this area, teachers and church leaders play an important role. Training workshops, education materials, and communications methodologies will need to be developed. As a policy, the project should build latrines and fountains in churches and schools using these improved facilities for training in improved hygiene behaviors. The demand for these facilities may not always come from the institutions. For this reason, general level messages by radio or other media may be helpful in creating the demand.

Since the mid-term evaluation conducted by WASH in January 1987 (see WASH Field Report No. 205), the hygiene education component has undergone some very important changes. The most important achievement has been the hiring of four promoters and the extensive training of an additional eight promoters. A regional promoter is in place as well as the promoter supervisor, a counterpart of the expatriate hygiene education specialist.

Efforts to change hygiene behavior now begin with the promoter's acquainting herself with all the community institutional personnel. She submits a list to her supervisor which includes their names, their positions, and their institutions.

As she gets to know community members, she teaches hygiene in the various neighborhoods in discussion groups of 10 to 15 men and women. The discussions last approximately one half-hour. These discussions are centered on any four of the project themes (handwashing, latrine use, cleaning the fountains, and

covering water in transit). She also visits homes and organizes large meetings of 20-30 people.

Each month, the female promoter chooses two themes for each three-week cycle. She uses these themes during meetings and home visits. With each cycle the female promoter uses different types of teaching materials.

These activities occur over a period of eight to twelve months and are preceded by the election of water association members guided by male community development promoters. Election of standpipe committee members is guided by the female promoters. The community development promoter and a water association representative are also supposed to participate.

3.2.2 Female Promoters as Trainers

The following recommendation is intended as an objective for the future, although beginning steps can be taken within the current project. To improve the impact of the female promoter in a community and to help move this project towards a more sustainable community-managed activity, the female promoter should be a trainer of trainers. She should now focus more on the training of standpipe committees. The committee members should increasingly train community members. The female promoter should become increasingly a coach of the standpipe committees and with the committees should select indicators for evaluating changes in hygiene practices.

3.2.3 Training Materials and Tools for Teaching Hygiene

The project has developed a user education manual. In June 1988, CARE conducted a one-week training course for female promoters in non-formal education. The course focused on adult teaching using games, songs, and stories. This course gave the promoters the confidence they needed to begin creating their own lessons relating to the four themes. The female promoters develop radio spots which consist of songs created and sung by standpipe committee members. The skits and messages are performed by the promoters. The training of the standpipe committees by the promoters' supervisor, the regional promoter, and the site promoter is one of the major hygiene education activities. The training course is divided into four sessions of four hours each. Standpipe committee members are asked how and when they would like the sessions. Sometimes they opt to have the entire course given over two consecutive days.

The areas currently covered include:

- The roles of COQ members
- The qualities desired in COQ members
- The problems we may encounter working as COQ members
- The consequences of negligence of COQ members

- The relationship between CAEP and COQ
- How to organize families
- Four hygiene themes
- The care of our water
- Sickneses related to water
- A community visit to observe health problem

During the training, questions and concerns of standpipe committee members included:

- how the water systems work?
- what is their role vis-à-vis CAEP?
- what if community members think that, since they are paid, caring for the standpipe is their (the COQ's) job?

These questions and concerns clearly demonstrate that the process of educating the community regarding responsibility and ownership of the system needs greater focus and attention.

Following are some ideas for strengthening the existing educational approach for community members:

Identifying Health Problems

Community members can identify health problems they would like to work on. As most diseases commonly found in the community are either water and sanitation related, the motivation of community members for behavioral changes to prevent the disease is likely to be greater with such an approach.

Oral/Fecal Chain

As has been shown in KAP studies conducted at various times, germs ("mikrob") are well known. However, knowledge of the oral/fecal chain is not. One way to teach the relationship of environmental sanitation to illness and the oral/fecal chain is through a demonstration. Fecal matter spread on the ground is represented by white powder or in red paint and tracked into the house on one's feet; a spoon or dipper is dropped in the paint or powder (feces) and then used to serve food. If the spoon or dipper is not washed the audience can see how they might ingest fecal matter. This was discussed at length with staff.

Model of Water Systems

At present there is apparently one flipchart model that is used to explain how the water systems work. Every CAEP should have such a model. Where possible local materials to build an actual model could also be used. While the CAEP training is, in general, good, there are some aspects which need to be improved.

Posters

Posters with hygiene messages for the community and for training are colorful and well done. However, they need to depict local realities more closely. The posters and training seems to imply that brushes and soap must be used for cleaning the fountain areas. There are, however, local materials which are equally as effective, i.e. coconut husks instead of brushes and lemon, ashes, or local soap as cleansing materials. These items are being promoted for hand washing and could be extended to include cleaning fountain areas.

Garbage Pits

Hygiene education messages regarding waste disposal and the introduction of garbage pits could easily be incorporated into the water supply and hygiene education program.

Maps for Self Evaluation

Each standpipe committee can draw a map showing its neighborhood key features: houses, the water source, the church, etc. Each house would have symbols added to it as it gains facilities or starts hygienic practices. As each household builds latrines (and uses them), and begins hygiene behaviors symbols are added and the "houses" are filled in. Gradually the COQ members fill up the map and are rewarded by the CAEP, using stars, points, or other appropriate mechanisms.

Covering Water in Transport

Messages on hygiene education need to be reviewed, specifically the message on covering water buckets in transport. What exactly is the contaminating factor here? If, however, rocks are being used to keep water from splashing out, then this specific behavior will need to be addressed.

Chapter 4

STRATEGY FOR COMMUNITY (USER) EDUCATION AND TRAINING

As mentioned earlier, this project has made important strides in turning over the management and care of the water systems and health education to the communities. The following areas, however, need strengthening. Community development and hygiene education activities need to be integrated so that user education is the strategy for community management. The combined training capacities of the water association and the standpipe committees in the communities need to be strengthened. Closely related to the above, training needs to be more responsive to community feedback.

4.1 Suggestions for Integrated User Education

Where promoters from both the water associations and the standpipe committees are working together, their first contacts with community members should emphasize health in relation to the water supplies. The two types of promoters should continue to work together in choosing the location for fountains and showers with the residents (as is already done.) Health and water system management and maintenance should be joined in hygiene education sessions using film strips and slides, when male promoters train CAEP in O&M fund collection, and when female promoters train standpipe committee members in neighborhood census. Likewise fountain cleaning training and activities must take into consideration both technical and health aspects of the project, and standpipe committees should be trained by each other.

4.2 Activities for Implementing User Education

To implement the above strategy in the next year and to start the process for the follow-on project, the following are needed:

1. Under the follow-on project, the entire management structure of the project may change so that only one promoter will be covering a construction site/community. In the interim, however, CARE should consider a three-day workshop for both male and female promoters in team-building. The workshop should focus on user education.
2. Following the workshop, program staff and coordinators (assistants to the advisors) can specify the tasks and the sites where this team approach can be used.
3. Training materials on the team approach to user education need to be developed.

4. The CARE community development coordinator will conduct a workshop for the promoters. The training guide prepared by a local training consulting firm is ready for use in this workshop.

The feasibility of the above activities will depend on whether or not, as indicated, more work can be considered before next fall. The workload planned for staff is very heavy through the summer. If it is possible to combine community development and hygiene education, only one or two sites would be available during the current project. The proposed activities are more likely to be considered for the follow-on project due to the short time left for the present project.

4.3 Develop Capability of the Members of CAEPs and COOs to Train Community Members

The phasing of CAEP training from one course lasting three weeks to the current two one-week training sessions occurring before and after construction is an improvement. The learning process can be further strengthened by breaking down training into different tasks. These tasks will correspond to the activities scheduled to take place in the community.

The training approach proposed here is based on the system already established. The activities of male and female promoter should be scheduled to ensure that every two to three weeks on a specific day of the week and at a specific time (agreed upon beforehand) the trainer (i.e., a promoter) will visit a specific user association or standpipe committee.

The schedule might look as follows:

| M | T | W | Th | F | S | S | M | T | W | Th | F | S | S | M | T | W | Th | F | S | S |
|---|---|---|----|---|---|---|----|----|----|----|---|---|---|----|----|----|----|---|---|---|
| 1 | 3 | 5 | 7 | | | | 9 | 11 | 13 | 15 | | | | 17 | 19 | 21 | 23 | | | |
| 2 | 4 | 6 | 8 | | | | 10 | 12 | 14 | 16 | | | | 18 | 20 | 22 | 24 | | | |

The numbers indicate the standpipe committee that will be visited. Fridays are used for training of trainers by regional staff and for writing reports. These sessions will include issues, successful practices, and demand by community.

Each meeting is an interaction between members of committees, the associations, and trainers. Knowledge and skills in each session will address only one task, i.e., the task that is scheduled next for both the hygiene education and water system maintenance and management. Each session consists of reviewing the task, discussing what problems emerged in implementing it, how trainees (i.e., committee members) responded, and what the next task will be. In this way urgent community issues can be dealt with. The speed with which trainees learn is the guide for pacing the training, and real issues in the community should determine session content. For example, if the task is to look at the health problems in the community, but standpipe committee members report during the session that there is a dispute in the community which resulted in their being

unable to carry out a health survey, then the training for that session should be in dispute settlement.

While such an approach will require careful planning and coordination, it will nonetheless permit feedback from communities and the effective utilizing of the skills taught. In addition the technique is one of learning by doing which is the most effective method for training adults.

Chapter 5

INTEGRATING THE CWSD PROJECT WITH CARE CHILD SURVIVAL PROJECTS

Water supply and sanitation projects have been plagued by the need to show their impact through reductions in diarrheal diseases. Generally, the measuring of such health benefits in the course of routine project activities presents a formidable challenge. In the first place, such health benefits are of interest to policy makers and donors. To community members, it is the convenience and the potential expansion of economic activities or the aesthetic nature of latrines that are of greater significance and importance. There also tends to be a certain naivete about health benefits resulting from unrealistic expectations of village communities and of those implementing water projects.

Most studies tend to be plagued by methodological problems. Over the past five years, WASH has recognized that measuring of health impacts might be well beyond the means and capabilities of most water projects. Thus, for the course of the project cycle, the emphasis has been on the behavior changes resulting from the water project. Such indicators might be increased utilization of water, increase in the building and use of latrines, the presence of cleansing materials in cooking areas, and the protection of water within the domestic setting.

In recent years methodologies such as the case control established by Briscoe et al. (International Journal of Epidemiology, 1988, Vol. 17, No. 2.) has been used by UNICEF in Lesotho. The study lasted 12 months and required full-time and part-time professionals and a not insignificant level of logistical support. This evaluation showed that children under five years of age, coming from households with latrines, may suffer 24 percent fewer episodes of diarrhea than children coming from households without latrines. It was also found that factors such as handwashing after defecation, mother's occupation, and water quality may modify the effect of latrine ownership on diarrheal incidence. (See UNICEF evl/ss/89/01, summary of Lesotho: Final Report on Health Impact Evaluation.)

In 1985 WASH fielded a consultant physician/epidemiologist to develop a plan for evaluating some health impacts of the CWSD project (WASH Field Report No. 154). The resulting evaluation design proposed to assess health status in areas where the CWSD project was to be implemented and where the Community Integrated Nutrition and Education Centers (CINEC) project was also being implemented. Health status was also to be assessed in areas where CINEC was being implemented but without the water supply project. This evaluation has not been done. The collection and analysis of data were beyond the scope of work or the capacity of the personnel of either project.

At the request of the USAID mission, the current WASH consultant was asked to look at how the CWSD project and the CARE Resources in Community Health Education Support (RICHES) project affect each other. RICHES' stated objectives are to provide Maternal and Child Health (MCH) services in the CWSD project area, upgrade MCH services started by CINEC, develop the local capacity to

support these services, and develop a culturally appropriate and sensitive family planning program for the project area.

CARE staff is currently considering the best ways to combine and coordinate the efforts of these two projects in communities where RICHES and CWSD projects are already working together, where the CWSD project comes after RICHES has already started, where CWSD started before RICHES, and where RICHES is working alone.

RICHES staff intends to collect data from the four different types of communities and to determine:

- the number of women who are familiar with diarrheal management, i.e., knowledge of feeding and oral rehydration therapy during diarrhea episodes,
- the number of women whose children have completed immunizations,
- the number of women bringing children for growth monitoring.
- the number of women coming to pre-natal clinics,
- the number of women seeking family planning methods, and
- the capacity of communities to institutionalize RICHES interventions.

These figures are already being collected by the RICHES project and focus on utilization rather than impact. If utilization is sustained, then it is assumed that it will have an impact.

Some compounding variables have been eliminated simply by the nature of the project. For example, RICHES does not work in areas where missionary clinics are already in operation.

Sample sizes are from 50 to 100 women, and are too small to provide definitive results. The effort will, however, provide a reliable indicator of how the two projects can coordinate their activities. It should provide, for example, some critically important data on how sequencing of water supply and child survival projects affects health status. For both CARE and the larger donor community seeking answers with regard to the effectiveness of child survival and water projects, such a study is likely to result in operational rather than theoretical approaches useful for future projects.

Appendix A

SCOPE OF WORK

SCOPE OF WORK

HAITI: Assessment of CARE Water User Education Program

Background

WASH conducted a mid-term evaluation of the USAID/CARE Community Water Systems Development Project in Haiti in February 1987. As part of this evaluation, it was recommended that the user education program be assessed. USAID/Haiti recently received the funding to amend their cooperative agreement with CARE which allows for the expansion of the water user education and sanitation program. WASH will assist USAID/Haiti by providing the technical assistance required to assess the program. The intent of the assessment is to strengthen and expand the user education component of the project.

Responsibilities

The WASH consultant will provide technical assistance in the following areas:

1. Review CARE CWSD documents (PP supplement, progress reports, base line data, and various survey reports).
2. Review and discuss CWSD hygiene education materials.
3. Review the appropriateness of CWSD hygiene education strategies and approaches in the field, observing and discussing the messages, methodology, and tools used. This would include home visits, group sessions, education through institutions, establishment and training of neighborhood committees, etc. Issues requiring special attention are:
 - ♦ the appropriateness of the overall approach in terms of sustainability given the absence of a GOH primary health structure; and
 - ♦ the level of detail required for user education messages.
4. Provide advice regarding the development of appropriate feedback mechanisms (mini process evaluation tools) for use by the hygiene promoters in the field.
5. Review and share ideas regarding the overall community participation strategies used by the project, and in particular regarding the linkage between community participation and user education.

6. Produce draft report based on these findings for the mission.

Personnel

A hygiene educator/social scientist is required to provide the necessary technical assistance.

Timing

Field work is scheduled to take place from 6 February to 16 February 1989.

APPENDIX B

PEOPLE CONTACTED

Appendix B

PEOPLE CONTACTED

USAID/Haiti

Muriel Jolivert, Project Officer, CWSD Project
David Eckerson
Bonnie Kittle

CARE/Haiti

Virginia Ubik
Christy Gavitt
Lutful Gofur
Shelagh O'Rourke
Lewis Jasmin
Sheri Walters

CARE Field Staff

Rithza Benjamin, Regional Promoter
Sophonie Dorminier, Chardunnieres Promoter
Raphael Petion, Community Development Foreman
Fallieres Bernier, Supervisor of Female Promoters

Appendix C

CARE PROJECT EVALUATION QUESTIONS

Appendix C

CARE PROJECT EVALUATION QUESTIONS

1. How do CAEPs generate, manage, and use O&M funds?
2. How is the CAEP viewed by the community?
3. Do CAEP members really understand the management skills and knowledge (content) taught during CAEP training?
4. How many water systems in the projects are being effectively managed, maintained, and operated?
5. What are the advantages and disadvantages of being a CAEP member?
6. Are CAEPs maintaining adequate record-keeping systems?
7. How do CAEP's see their relationship with SNEP?
8. How effective have the COQs been?
9. Why do or don't COQs do the work they are supposed to do?
10. What hygiene practices, promoted by the project, are being implemented by community residents?
11. How much has the quality of drinking water improved since the water system was constructed?
12. How much water does each household use per day?
13. How many households only get their drinking water from the new water system?
14. What obstacles do latrine committees face after CARE pulls out?
15. Are latrines being used? If not, why?
16. Are the project's expectations of what CAEPs and COQs should be able to do realistic?
17. What are the perceptions of community residents about who made decisions during the construction of the water system?
18. How many community residents have a feeling of ownership of the water system?
19. How effective have CAEP, COQ, and plumber training been?

Appendix D

**CONTENT OF TRAINING FOR MEMBERS OF THE
COMITES D'APPROVISIONNEMENT EN EAU POTABLE (CAEPs) AND LOCAL PLUMBERS**

Appendix D

CONTENT OF TRAINING FOR MEMBERS OF THE COMITES D'APPROVISIONNEMENT EN EAU POTABLE (CAEPs) AND LOCAL PLUMBERS

CAEP Phase I - Sessions before and during first three months of Construction (in community)

- Project objectives
- Role of CAEP, role of CARE in project implementation
- How do CARE staff and CAEP work together?
- Principles of management
- Organization of CAEP
- How to work in teams
- What is the water system and how does it work? (Theory, field visit, model construction)
- Role and Responsibility of the COQ and how to manage COQ elections
- Communication technique
- How to plan a meeting
- Contribution of public users
- How to solve a problem
- Principles of correspondence
- How to run meetings
- How to prepare and present reports
- How to organize files
- How to make a deposit in a bank
- How to manage a stock of construction materials

CAEP Phase II - Sessions before Construction Ends (in Regional Workshop)

- Principles of management (repeated)
- Organization of CAEP (repeated)
- Management plan of CAEP
- O&M and supervision of plumbers
- Installation and Management of private connections
- Contribution of public user (repeated)
- Role of CAEP in development
- How to prepare and present a report (additional)
- How to organize files (repeated)
- Bank management
- Management of a stock inventory
- Financial management of CAEP
- How to prepare a budget
- Accounting 1 & 2
- Financial Reporting
- How to keep the environment clean

Local plumbers training

Phase I - Initiation (one day)

- What is a water system? (purpose, functioning)
- Parts and materials used to build a system
- Tools and their use
- The role of a local plumber (during construction, O&M)
- Relationship between CARE, CAEP and the local plumber

Phase II - On the job training (8-15 months)

- Basic plumbing theory
- Practice correct use and maintenance of tools
- Learn and practice all plumbing techniques during system construction

Phase III - Regional O&M Workshop (two weeks)

- What is a water system? (repeated)
- How to perform measurements I and II (general)
- How to perform measurements I and II (water flow)
- Relationship between CAEP and local plumber
- Planning and management
- Tools maintenance and management
- How to use O&M plans
- Maintenance of metal parts in all structures
- Maintaining a spring catchment
- Maintaining a sedimentation basin
- Maintaining pipelines (preventive)
- Maintaining reservoirs

- Maintaining showers and standpipes
- Maintaining and controlling private connections
- Detecting and repairing leaks in PVC and GI pipe
- Repairing valves
- Repairing taps
- Disinfection of structures and the water system (I and II)