The People's Republic of China

Project CPR/91/141
Capacity Building and Investment Preparation for
Rural Water Supply and Sanitation in Poor and Remote Areas

Consultant Report No. 02

INTERNATIONAL CONSULTANT REPORT

ON

HEALTH EDUCATION

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Water and Sanitation Program
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HEALTH AND HYGIENE EDUCATION SPECIALIST

CONSULTANT REPORT *

Dr. William Chen

I. BACKGROUND

As a direct support to China Rural Water Supply and Sanitation Program (RWSS), the UNDP/World Bank Project "Capacity Building and Investment and Preparation for Rural Water Supply and Sanitation in Poor and Remote Areas" is providing the technical assistance and training needs of RWSS during preparation and the initial two years of project implementation for health education programs.

The objective of the consulting assignment was to safeguard the successful implementation of RWSS by: (1) providing technical assistance in the area of health/hygiene education to the project offices and the beneficiaries; (2) conducting health education training programs; and (3) assisting and/or providing guidance in the initial execution of health education plans and programs.

II. Review and Modification of Health Education Training Materials

1. A copy of the "health education manual" compiled by the National Project Office for the Rural Water Supply Technical Center was reviewed and the result was discussed with a group of six national consultants. It was agreed that the manual may have been somewhat technical and theoretical in nature for use as a training manual for entry level health educators. For training purpose, the manual should include more materials on case studies and group exercises to help facilitate acquiring practical experiences. It is suggested that the manual be revised and modified into two sub-manuals by the national consultant team for immediate use.

2. A simple step-by-step Health Education Operation Manual should be prepared immediately to serve as a guide for entry level health educators or village doctors. It is also suggested that the manual be developed and printed by the National Project Office

* Mr. Kyaw Myint of the UNDP/World Bank Water and Sanitation Program, China Country Office joined Dr. W. Chen in his field visits.

(NPO) and distributed for use at provincial/county project off on or before May 10, 1992. An outline of the operation manual recommended as follows:

A. Introduction

a. Scope and Responsibilities

The focus should be on entry level health educat or other field workers such as village doctors.

b. How to Use This Manual

Instruction on how to utilize this manual and l of references for further information should included here.

B. Preparation Phase

a. Understand your target population and Community

Methods and steps for conducting formal and infor meetings to collect information and ot interactional approaches should be explained listed.

b. Organize a Working Team

Methods of how to, whom to include, and when to f a working team should be included.

c. Prepare a Plan of Action

Simple health education planning process should explained here. The focus is on goals objectives, resources needed, methods and materi of health education, and a detailed time table.

d. Baseline Data Collection

Give specific guideline concerning what data collect, how to collect, and when to collect. Sample of forms and format of data collection sho be attached.

C. Action Phase

a. Community Organization

Ways of identifying community leaders and involving village beneficiaries should be explained and listed. In addition, ways of mobilizing community leaders (i.e. organize a guiding committee) should also be provided.

b. Communication and Information Dissemination

Example of formal and informal communication methods and how the information can be quickly disseminated should be provided here.

c. Educational Programs (Motivational Strategies)

Examples of various discussion groups, workshops, formal educational classes, and specific incentive programs to motivate beneficiaries for the purpose of enhancing knowledge, influencing attitudes, and facilitating practice of health behaviors should be provided.

D. Monitoring and Evaluation Phase

a. Program Adjustment and Revision

During or after the initial implementation of the program, adjustment and/or revision of plan should be assessed and conducted. Examples of preliminary indicators for monitoring and evaluation should be provided.

b. Program Monitoring and Evaluation

Guidelines for data collection (indicators and forms) and other monitoring mechanisms should be briefly explained and provided.

E. Final Phase

a. Program Wrap Up

Examples of group meetings, letters of appreciation, and awards could be listed here for reference.

b. Future Direction

A continuation plan should be discussed and arranged with beneficiaries at this phase.

c. Final Report

Guidelines for preparing final report should be provided.

3. The second manual could be considered as a training manual. This manual should also be designed and developed by the NPO with the assistance from national and international consultants. This manual can be adapted and modified by the provincial and county level offices for training purpose. The manual should include materials concerning both principal and practice of health education. Outline of contents for various groups of target population should be provided. Additionally, duration of training, instructors' qualifications, and methods of evaluating the impact of training should also be provided. Ideally, the training manual should be completed before the program is launched.

4. The ITN-Hygiene Education training module was reviewed. It is recommended that this material be modified to fit the project situation in China. Additionally, a new set of slides should also be developed as soon as possible to serve as a training material.

III. Training Program

1. A national training program for personnel in charge of health education was conducted at the Changping Rural Water Supply Technical Center from the 3rd to 18th of March, 1992. Six national consultants and one international consultant were invited to conduct the training workshop. The outline of contents included in the training materials from the international consultant is listed below (See Appendix A for detailed outline):

A. Factors Affecting Health.

B. Definition and Functions of Health Education in the Rural Water Supply and Sanitation Project.

C. Health Education Program Planning and Evaluation.

D. Example of Water Supply and Sanitation Related Health Education Program in Other Countries (Materials drawn from World Bank - Executed UNDP Project INT/82/002, 3-2).

E. Selected Issues Involved in Health Education Implementation.

   a. Involvement and Participation of Target Population.

   b. Effective Communication and Adaptation of Health Behaviors.

   c. Educational Dosage.

F. Practical Exercise

   a. The Situation.

   b. Guideline for Group Discussion.

G. Summary and Discussion.

2. The impact of this training program appears to be quite significant since most of the participants were not professionally trained as health educators. The training provided some basic knowledge of health education and ways of implementing health education program for the water supply and sanitation project. Continuous professional training and in-service training is strongly recommended.

3. The training method could be improved by providing more practice opportunities and group discussions rather than straight lecture format. Direct participation of the trainees and two way communication between trainers and trainees are always more effective and produce better results. This training format should also be followed at the provincial/county level training classes.

4. It is recommended that trainer's qualifications should include both academic preparation and field experience related to rural water supply and sanitation project.

IV. Field Trips to Gansu and Hunan Provinces For Observation and Technical Assistance (Refer to Appendices B and C for detailed reports).

1. Two provinces (Gansu and Hunan) were visited during the mission in China from March 10 to March 23, 1992. Purposes of the mission were to : (1) appraise and improve the current status of health/hygiene education, including revised proposal and readiness of the project; (2) identify area of needs and concerns for implementing the health education program; (3) provide technical assistance and/or training in implementing health education program during the initial phase; (4) make recommendations for further improvements.

2. After visits to villages and discussions with beneficiaries and local officials it became clear that the willingness to participate in the water supply project is very high and everyone at the provincial/county level are all very anxiously waiting for the project to be launched. On the other hand, interests in participating in the sanitation project (improvement of latrines) were not as well received, particularly in Gansu Province. It is suggested that health education program should start right away and more efforts need to be placed on changing attitudes of beneficiaries concerning their sanitary/hygienic practice as well as sanitation facilities.

3. Due to lack of experience in conducting effective health education program, it would be a good idea to select one or two counties in each province as a demonstrating site for health education (Yongdeng and Lintao for Gansu Province, Linli and Qianyang for Hunan Province).

4. Health education proposals in both provinces (including provincial and county proposals) were reviewed and it was evident that both proposals have been revised and recommendations for improvement made during the appraisal mission in December 1990 were followed accordingly.

5. While the number of staff assigned to carry out health education program appears to be adequate in both provinces. The competency of these staff in executing the program is questionable. Majority of these staff are reassigned to implement health

education program without adequate professional training. Lack of professionally trained health educators could be a major barrier in implementing the program. To make up for this deficiency a simple step-by-step operation manual and continuous in-service training throughout the entire project period are recommended. Technical assistance from national and international consultants should be provided.

6. Traditional method of propaganda and passive participation was the main approach used in both provinces. This method may be somewhat successful in resolving health behavior such as immunization in the past, however, it will not be effective in changing behaviors for personal hygiene and sanitation. Participatory approach with innovative educational materials and variety of motivational activities should be implemented for better results. It is also recommended that technical assistance from national and international consultants be provided.

7. Coordination and cooperation between project health educators and staff at the health education institute at provincial/county level should be strengthened to improve the efficiency of operation.

8. Budget for health education program in both provinces appears to be adequate in implementing the health education program. However, the budget for training may need to be secured and increased to meet the extensive need of in-service training during the entire project period. Additionally, it is also recommended that flexibility be provided for budget allocation to include expenses for innovative programs and materials.

HEALTH AND HYGIENE EDUCATION SPECIALIST

CONSULTANT REPORT

Appendix A - Health/Hygiene Seminar, Beijing

Appendix B - Health Education Component, Gansu

Appendix C - Health Education Component, Hunan

Appendix D - Field Visits Program/Itinerary

Appendix E - List of Persons Met

Appendix A

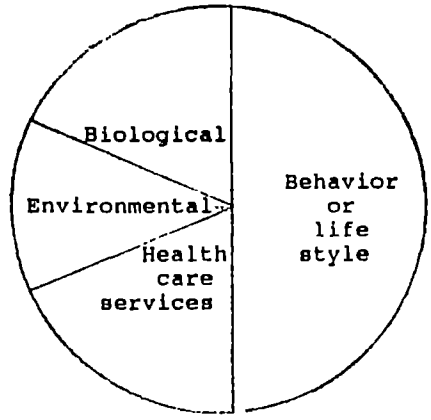
Theory and Practice of Health Education for Rural Water Supply and Sanitation Project

Health/Hygiene Education Seminar

Outline

A. Factors Affecting Health (Health Determinants)

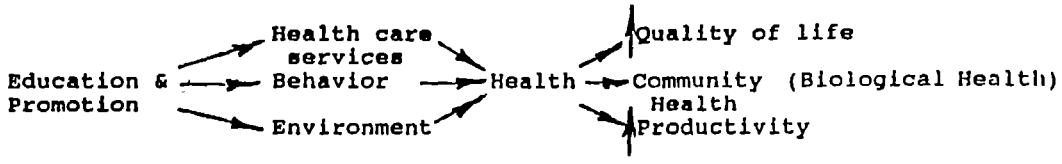
Biological - Genetic or other biological concerns
Behavior or life style - Smoking, exercise, diet, and hygiene practice and others
Environmental - Water supply, pollution etc.
Health care services - accessibility and utilization



B. Definition of Health Education and Health Promotion. The Role of Education in Promoting Health.

Health education is any combination of learning experiences designed to facilitate voluntary actions conducive to health.

Health Promotion is the combination of educational and environmental supports for actions and conditions of living conducive to health.



C. Health Education/Promotion Planning (PRECEDE-PROCEED Model)

a. Target population
b. Needs Assessment, i.e. Educational diagnosis (Predisposing factors, Enabling factors, and Reinforcing factors)
c. Goals and Objectives
d. Facilitator and Barriers
e. Planning
f. Implementation (Quality assurance and feedback)
g. Evaluation (Process, impact, and outcome)

D. Health Education/Promotion in Community Water and Sanitation Program

a. Team Effort (planning team and implementing team)
b. Understanding the Community (Involving the community, Identifying leaders)
c. Developing the Program for change (Understand community needs, believes, values, and resources)
d. Case studies
   1) Involving the community (understand the people's perception of disease and design hygiene messages accordingly) (ITN 3.2)
   2) Identifying leaders (ITN 3.2)
   3) Project situations (ITN 3.2)

E. Selected Issues Involved In Health Education Program Implementation

a. Involvement and Participation of Target Population

Health Education is designed to promote and facilitate voluntary adaptation of healthy behaviors, thus it is extremely important that target population (beneficiaries) be involved in the planning, implementation, and evaluation of the program. Selected methods of involvement and participation:

1) Nominal group technique - An informal and unstructured group process to solicit the opinion of the target population in terms of their attitude, needs, beliefs of the target behavior.

2) Focus group - Gather highly representative participants from the targeted area to express opinion, identify issues and needs, and prioritized the needs.

3) Home Visit
Conduct face-to-face interview.

4) Questionnaires survey of beneficiaries concerning their needs and interests, and any issues related to the project.

b. Effective Communication and Adaptation of Behavior

1) Diffusion and Adaption Theory

Four groups - Innovators
- Early Adopters
- Early Majority
- Late Majority

Five stages - Awareness
- Interest
- Trial
- Decision
- Adoption

2) Factors Affecting Effectiveness of Mass Media (7 C's theory)

Credibility - The source must be competent and reliable so that the receiver can trust the message.

Context - Must be relevant to the receiver and provide a link with participation.

Content - The message must be meaningful.

Clarity - The message must be clear and understandable.

Continuity - The message must be consistent enough and not to confuse the receiver.

Channels - Use established channels as the receiver is more likely to use these channels.

Capability - The receiver must be capable of doing what is asked and with the least amount of effort.

3) Examples

Poster contest with emphasis on Carton Character to carry the message of water supply and sanitation practice. Singing contest with songs carrying the message of importance of safe water supply and sanitation practice.

c. Educational Dosage

Educational dosage must be strong and long enough to be able to initiate and maintain behavior change.

F. Exercise:

The Situation

A health education program was undertaken to control water-borne diseases in an Arab village of 3,000 people. For five years previously, repeated attempts to control and treat infected patients and family contacts had been unsuccessful; during one summer alone the number of reported cases had risen by 24%.

The local health office had responded to this increase by assigning five nurses the task of visiting all the schools in the village, screening all students, and giving talks to all classes above the fourth grade. Pamphlets in Arabic were distributed, houses were visited, two physicians lectured at a special meeting of men, and parents were invited to clinics for free drugs and instructions. The turnout at clinics was disappointing, however, and within a few months the incidence of infectious diseases had jumped from 24% to a 31% increase of cases.

The Problem (Group Discussion)

What is wrong with this program?

Discuss the problem of this program in your group and come up with solutions for the problem.

THE SUCCESS PROGRAM:

The Situation

A special health-education team was organized consisting of nurses, a sanitary inspector, and a health educator who was the team leader. The group engaged in a series of training sessions to learn how to conduct health education and to develop a plan for responding to health problems at a community-wide level. Reviewing past experience and consulting with other professionals, the team developed a four-phase program designed to control water-borne infectious diseases within six months.

Phase 1 - a three-month house-to-house Survey eliciting the prevailing beliefs about, and attitudes toward infectious diseases.

Phase 2 - informational campaign -

(1) Forming a committee of community leaders to join the team in helping the community understand the problem and what it should do to eradicate it.

(2) Obtaining the direct support of village elders and other leaders by meeting in their homes.

(3) Arranging visits by the district health officers to local physicians and nurses to elicit their support and involvement.

(4) Holding separate meetings with school teachers, women's club, parent's council, high school students, and village water-supply committee.

(5) Holding informal meetings in private homes, resulting in the participation of 346 adults.

(6) Distributing carefully prepared pamphlets imparting clear messages about the problem and how to eradicate it and using program terms.

(7) presenting health-education program to all classes above 4th grade.

(8) Having students take educational messages to their parents and encouraging the latter to participate in educational discussions at home.

Phase 3 - Treatment program (one week) given medications to be administered by the head of the household, their homes were also visited and treated.

Phase 4 - Program wrap-up and follow-up checks and treatment. A post-program meeting was held for all interested people, and volunteers were presented with citation. The following year only one case was reported and promptly treated.

Group Discussion

1. What are the factors contributing to the success of this program?

2. How can the experience of this program be applied in your own health education program at home?

G. Summary and Discussion

Participants were given opportunities to raise any question and issues related to the seminar and implementation of health education program at home.

Gansu Rural Water Supply and Sanitation Project
Health Education Component

A. Introduction

a. Purpose of the mission

1. Appraise the current status in health education including revised proposal and readiness of the project.

2. Identify areas of needs and concerns for implementing the health education program.

3. Provide technical assistance and/or training in implementing the health education program during the beginning phase of the project.

4. Make recommendations for future improvements in the area of health education.

b. Brief description of the mission

Two counties (Lintao & Yongdeng) and two townships in each county were visited during the mission from March 10 to 18, 1992. Field trips were arranged to visit households and to have direct conversation with the project beneficiaries in the village. Meetings were conducted between project officers, local authorities and the consultant team after the field trip. Additionally, meetings between provincial project officials and the consultant team was held on March 14, 1992 to wrap up the mission in Gansu.

Overall, main areas of concerns in health education component in Gansu were : 1) Lack of professionally trained health education specialists and 2) Concept and idea of active participation from beneficiaries is lacking. On the other hand, some strong areas in health education were observed: 1) there are strong commitment for health education program in the project from the decision makers at each level; 2) the integration and cooperation between project office and health education program is

definitely a plus; 3) there is an excellent administrative organization from provincial level to township level, which appears to be ready for implementing the health education program, provided that technical assistance is available when needed.

B. Results of observation and Comments

1. The revised health education proposal has been improved significantly, it is quite thorough and more specific in content. However, the proposed methodology or strategies tend to focus more on traditional propaganda or passive participating approach.

2. The readiness of beneficiaries to participate in the water supply project appears to be very high. However, the interests in participating in the improvement of sanitation facility (household latrine) is lacking.

3. There is a well organized network administratively and the willingness to carry out the project is evident. On the other hand, lack of trained health education specialists could be a major barrier for implementing the program effectively.

4. The support and commitment from decision makers and local authorities appear to be strong and could be utilized fully when the project is launched.

5. There is an excellent working relationship between project office and health education institutes at each level which could be used to facilitate the implementation of the program.

6. The concept of team work in implementing health education program is understood by the officials but needs to be organized and implemented.

7. The health education approach tends to be limited to traditional thinking of propaganda and active participatory approach is somewhat lacking.

8. The integration of health education into the school education system, particularly in the primary and secondary schools should be helpful in facilitating the implementation of health education program.

9. Lack of innovative ideas in producing health education materials is evident. To be effective more variety and innovation is needed when designing educational materials.

10. Budget for health education appears to be adequate, however, flexible budget to meet the needs for innovative programs is somewhat lacking in some project areas.

11. Another concern is lack of expertise and experience in conducting health education baseline survey and carrying out monitoring and evaluation plan. However, the use of related baseline data from existing project (i.e primary health care) should be very helpful in providing information for needs assessment and evaluation.

C. Recommendations for future Improvement

1. Technical assistance for training in using active participatory approach in health education is needed (brief informal discussion and tips for active participatory activities were provided during the visit to counties).

2. Extensive pre-professional training and on-the-job in-service training needs to be conducted and continued throughout the entire project period. Assistance from national and international consultants is suggested (a brief outline of training content is provided).

3. Innovative health educational materials based on the needs and interests of participating beneficiaries should be designed and produced. Again, continuous technical assistance is needed (An idea of producing low cost calendars with project health education messages is suggested).

4. Health education operation manual for officials in charge of health education both at the county and village levels are urgently needed. It is suggested that the national project office should take the leadership role in designing and printing the manual for local adoption.

5. Technical assistance and provision of training manual for provincial level training and county level training are needed.

6. Forms and format for baseline data collection and reporting of results should be designed and provided by the national office and then modified and adopted by the provincial and county level offices for consistency.

7. Due to the low level of interests in participating in improvement of latrine and other sanitation facilities, health education specialists should work more closed with sanitation workers to change the attitude and value in investment in sanitation and eventually result in change of health and other personal hygienic behaviors.

8. The concept of team work needs to be enhanced and practiced (the team could include water supply engineer, sanitation workers, religious leaders (or community leaders), and personnel in charge of health education).

9. Provide flexibility for budget to include expenses for some innovative programs (i.e. rewards for cartoon character drawing contest for school students) which is to be developed after health education program is launched.

10. Reinforcing effort for health education must be designed and maintained in order to maximize the effects of health education.

Appendix C

Hunan Rural Water Supply and Sanitation Project
Health Education Component

Two rural counties (Linli and Qianyang) were visited during the mission in Hunan from March 18 to 26, 1992. Purposes of the mission were: 1) to appraise the current status in health/ hygiene education, including revised proposal and readiness of the project; 2) to identify area of needs and concerns for implementing the health/hygiene education program; 3) to provide technical assistance and/or training in implementing health education program during the initial phase of the water supply and sanitation project; 4) make recommendations for future improvements in the area of health/hygiene education. Following are summaries of comments and recommendations resulted from field trips and discussion with project official:

Comments

1. It is evident that health education proposal has been revised and it is now quite thorough and very specific in content. It appears that all recommendations made during the appraisal mission in December 1990 were adopted and revision made accordingly.

2. Health education program in Linli and Qianyang appeared to be somewhat successful and could be used as a demonstrating site for health education in the province. From the experience, it becomes evident that health education program could be very helpful in facilitating the implementation of water supply and sanitation project. Three factors appear to be significant in contributing the program in both counties: 1) there was a strong commitment from county government authorities; 2) village leaders were able to take initiatives in promoting safe water supply and sanitation and all of them acted as a good role model for village people; 3) there was an excellent working relationship between officials in CPO and health education staff in the county.

3. It was also evident that active participatory approach was not included in the educational strategies. The traditional method of propaganda was the main approach used in both

counties while the traditional propaganda approach may be somewhat effective in resolving some health problems, such as immunization, in the past, it will not be very effective in changing behavior related to personal hygiene and sanitation in the present project. To be effective, health education program needs to utilize combination of learning strategies designed to facilitate voluntary adaptation of behavior conducive to the health. Participatory approach with innovative educational materials and variety of activities are needed for better results.

4. While the number of personnel assigned to implement health education program appears to be adequate, the competency and quality of these professionals are questionable. Majority of them are reassigned from other departments or divisions without professional training in health education. Lack of professionally trained health education specialists could be a major barrier in implementing the health education program.

5. The budget for health education appears to be adequate in implementing the program, but source of funding and mechanism of securing and recovering the funds are inconsistent and somewhat confusing for the county officials. Some county officials are concerned that if the funding shall come primarily from domestic source, then it could be difficult in obtaining the fund to implement the program. They suggest that funding for health education should come primarily from the Bank Loan and be recovered as part of the water fees. In addition, budget flexibility for incentive programs and other innovative activities is somewhat lacking.

6. Due to the difference of administrative structure of the provincial project office and health education institute in Hunan, coordination and cooperation between these two offices could be somewhat challenging and needs to be further discussed and improved.

Recommendations

1. Technical assistance for training in using more active participatory approach rather than traditional propaganda method is needed. (Ways of improving health education strategies were presented and discussed with officials both at county and provincial meetings.)

2. Continuous technical assistance for the design of innovative health education materials is also needed. The educational materials should be designed and developed based on the

needs and interests of participating beneficiaries in the project area. (Examples of health education materials such as health education calendars were explained and discussed at meetings with both provincial and county officials.

3. Assistance from national and international consultants for pre-professional and in-service training are needed. To improve the quality of health education program, it is imperative that continuous in-service training for effective health education methods be conducted throughout the entire project period.

4. It would be very helpful to realign or reassign personnel to coordinate health education program between project office and health education institute at provincial level. It is recommended that someone with health education experience from the health education institute be appointed as a lead person to support and coordinate all the technical services requested by the provincial project office.

5. Integration and coordination with other health education programs required by other related health projects (i.e. primary health care, tuberculosis control, maternal and child health) could help to strengthen the overall operation of health education program.

6. It is also recommended that some flexibility for investment recovering mechanism and budget allocation be provided to improve the efficiency of operation and to increase the effectiveness of the health education program.

7. It takes a long time and great effort for people to adopt health behavior. Therefore for health education program to be effective reinforcing effort (with adequate and prolonged education dosage) must be designed and maintained.

Appendix D

Program arranged for Dr. William Chen visiting China
From March 2 to March 30, 1992 by NPO

March 02 (Mon)		Arrival at Beijing
March 03 (Tue)	AM	Discussion with officials from NPO
	PM	Discussion with UNDP/World Bank Office staff
March 04 (Wed)		Review and modification of the Health Education Manual
March 05 (Thu)		Review and modification of the Health Education Manual
March 06 (Fri)		Lecture for Class B in Changping
March 07 (Sat)		Lecture for Class A in Changping
March 08 (Sun)	AM	Attend a lecture given by Chinese health education experts
	PM	Discussion with Chinese health education experts
March 09 (Mon)		Open
March 10		Leave Beijing for Lanzhou (10:40-12:40)
March 11-17		Program in Gansu province including the visit to Yongdeng and Lintao counties
March 18		Leave Lanzhou for Changsha (08:40-11:00)
March 19-25		Program in Hunan province including the visit to Qianyang and Linli counties
March 26		Leave Changsha for Beijing (13:35-15:40)
March 27		Discussion with leaders and officials from NPO
March 28-29		Prepare the mission report
March 30		Departure

H,R

什么要HHE？— behaviours change, — 投入人力资源

manpower in china — population — lack of qualified

HHE workers

①. step-to-step manual

②. in service training

③. woman's involvement,