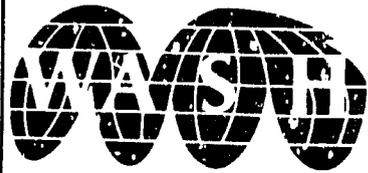


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WATER AND SANITATION
FOR HEALTH PROJECT

SWAZILAND
HEALTH EDUCATION
CONSULTANCY

Operated by
CDM and Associates

Sponsored by the U.S. Agency
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WASH FIELD REPORT NO. 219

FEBRUARY 1988

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the USAID Mission to Swaziland
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WASH FIELD REPORT NO. 219

SWAZILAND HEALTH EDUCATION CONSULTANCY

**Prepared for the USAID Mission to Swaziland
under WASH Activity No. 349**

by

Lynn H. Gilbert

February 1988

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ACRONYMS

CCCD	Combatting Childhood Communicable Disease
DHS	Demographic and Health Status
EPI	Expanded Program on Immunization (WHO Program)
FLAS	Family Life Association of Swaziland
GOS	Government of Swaziland
HEC	Health Education Center (the newer and preferred term for the HEU)
HEU	Health Education Unit (older term for what is now the HEC. "HEU" is often used by the Ministry of Health and is found in older documents.)
HI	Health Inspectorate
IHS	Institute of Health Sciences
KAP	Knowledge, Attitudes, and Practices
MMHP	Mass Media and Health Practices Project
MOH	Ministry of Health
ORT	Oral Rehydration Therapy
PHC	Primary Health Care
PHU	Public Health Unit
PRICOR	Primary Health Care Operations Research (A U.S.-based AID-funded project)
RWBDCP	Rural Water-Borne Disease Control Project, Ministry of Health
RWSB	Rural Water Supply Board, Ministry of Works, Power and Communication
SBS	Swaziland Broadcasting Service
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WASH	Water and Sanitation for Health Project
WHO	World Health Organization

EXECUTIVE SUMMARY

The Swaziland Rural Water-Borne Disease Control Project (RWBDCP) was established in 1980 to expand the capacity of the Government of Swaziland to deliver effective preventive health services to reduce the prevalence of diseases related to water and sanitation. The primary focus of the project is on health education, because health education is key to realizing the benefits of clean water supplies and sanitation facilities. The project operates within the jurisdiction of the Ministry of Health and the Ministry of Natural Resources. Within the Ministry of Health, the RWBDCP deals with four main units: the Health Inspectorate, the Health Education Center, the Public Health Unit, and the Bilharzia Control Unit.

The Health Education Center is the prime health education vehicle and thus the main focus of much of the RWBDCP's activity. The center is charged with all program development in health education, liaison with other health education and related organizations, and technical assistance and training for regional health workers, both government and private. Over the years, the RWBDCP has provided technical assistance to the center, has constructed a building for it, and has provided it with support for long-term training of staff and for production of health education materials.

The RWBDCP was scheduled for completion in 1986 but was extended to 1988. The extension document stated that the Health Education Center would conduct a study in 1987 to assess community health behavior change and to plan the modification or new development of health education materials and strategies. It was anticipated that a consultant would be provided to help the Health Education Center carry out this task. In March 1987, the U.S. Agency for International Development (USAID) asked the Water and Sanitation for Health Project (WASH) to provide such a consultant.

The basic tasks of the person chosen, a specialist in health education and evaluation, were to help the Health Education Center develop and implement an on-going evaluation system for assessing the effectiveness of its training and the impact of its health education materials and to design a KAP (knowledge, attitudes, and practices) study to measure the effectiveness of sanitation messages developed by the RWBDCP. The consultancy was for six weeks.

When the consultant arrived in Swaziland and met with the senior health education officer, it was decided to limit the assessment of health education materials and training to two key aspects: posters and workshops. Also, it was decided to aim for a good start on the KAP survey since time and staff limitation made it unlikely that the survey could be designed in six weeks.

The Health Education Center

The consultant found that the Health Education Center is working under a number of constraints. First, the staff is smaller than anticipated. Of the eight approved professional/technical staff positions, one had not been filled and two others are being held by individuals now involved in long-term training. According to government policy, these posts cannot be temporarily filled while those who hold them are away. In addition to thinning out the staff, long-term training causes a disruption in continuity and the temporary loss of specific skills. The current staff consists of the senior health education officer, three health education officers, and a visual aids assistant. These persons have very heavy responsibilities. Two of the officers are in charge of two regions each and the other is responsible for nutrition education for the entire country and is involved in the national infant-feeding survey.

The shortage of staff means that the center is able to meet its current obligations but has no time to devote to developing new programs or to evaluate existing efforts. As might be expected, the tight staffing has caused morale problems.

A second constraint involves coordination among various Ministry of Health units involved in water and sanitation. Such coordination is necessary if health education is to become part of all water and sanitation efforts, but at present very few coordinated or integrated activities are taking place, although there are some hopeful signs of progress.

Delay in training health assistants is the third constraint. Such training was to begin in 1987 but is stalled because of the lack of training staff and bureaucratic indecision. The delay has caused a critical shortage of field manpower to support community water and sanitation activities.

Health Education Materials

The Health Education Center is at present focusing on posters and radio programs. In 1986, one of the health educators organized and catalogued the radio program tapes by topic and year of production, but the list has not been updated and at present is unavailable. There is no other catalogue or list of educational materials. In addition, there is no regularized system for deciding what posters will be produced and no established procedure for evaluating posters (or any other health education materials). The center's visual aids assistant has developed a materials request form, but it is not in general use.

The consultant started her assessment of the posters by compiling a list of all posters currently available. Then she located copies of guidelines for pretesting education materials that had been prepared in 1983 by two WASH consultants. Neither the senior health educator nor the visual aids assistant recognized these guidelines, perhaps because they were in the United States for training at the time the guidelines were prepared. There are now two copies of these guidelines at the Health Education Center.

The guidelines were used by the consultant to field-test nine posters. Lessons learned from the field test are (1) photographs or simple, realistic drawings are best, (2) posters can be used to remind or reinforce but require additional explanation or teaching if their message is to be understood, (3) pretesting could make more effective and economic use of resources, and (4) some testing is possible and worthwhile even in the absence of transport.

Training Activities

The training activities of the Health Education Center focus on workshops for health personnel and community groups, such as chiefs, traditional healers, and church leaders. In 1987, 5,045 persons participated in workshops for a total of 11,301 person-days, excluding 200 rural health motivators who had received 13,200 person-days of pre-service training. Because workshops represent a sizable investment of funds and personnel, their appropriateness, effectiveness, and impact should be evaluated. However, the senior health education officer stated that she and her staff were so busy conducting or attending workshops that there was little time left for follow-up.

The consultant demonstrated a method of assessing training effectiveness using four representative workshops conducted by the Health Education Center. A procedure was established for the assessment which included questionnaires and interviews of participants. The assessment revealed that workshop participants are very interested in knowing that their recommendations are being passed on to the proper authorities. Also, follow-up activities to reinforce what was learned in a workshop are very important and should be devised.

The KAP Survey

A KAP survey was carried out for the RWBDCP in 1981-82 to establish baseline data for measuring subsequent improvements in health practices and conditions. A second KAP survey was to be carried out in the fifth year of the project. However, the mid-term evaluation of the project recommended against the second KAP. It is now generally accepted that the recommendation was ill-advised. The final project report called for a KAP study to be carried out under the Health Education Center.

The consultant got the KAP process started by getting a promise of financial support from the Primary Health Care Project (its mandate calls for the equivalent of a KAP) and by contacting a person to act as principal investigator for the KAP. A steering committee was then formed, a comprehensive list of health education messages was compiled, tentative decisions about sample selection were made, and a work schedule and budget were prepared. The basic arrangements having been completed, the nutrition health educator and the consultant prepared a preliminary draft of the KAP questionnaire. This must now be refined. The actual survey was scheduled for early 1988.

Recommendations

The consultant's major recommendations are as follows:

1. The Ministry of Health should resolve the issues impeding the reinstatement of health assistant training.
2. The Health Education Center, the Health Inspectorate, and the Rural Water Supply Board should cooperate in planning and providing support for field workers and outreach.
3. The Health Education Center should decrease the administrative and central-level activities of the regional health educators so that they have more time to develop regional resources for health education at the community level.
4. The Health Education Center, the Ministry of Health, and USAID should evaluate the effect of long-term absences for training on the capacity of the center to carry out its activities.
5. The Health Education Center should take steps to inventory, organize, and display posters more effectively and should set up a standardized procedure for requesting posters and other materials. The procedure will help the center to set priorities and plan what materials should be produced and will provide information about how materials are being used. Tapes of radio programs should also be inventoried and catalogued.
6. The Health Education Center should make certain that it is providing materials for the full range of groups involved in health education: schools, clinics, communities.
7. In view of the present level of workshop activity, consideration should be given to appointing a committee or task force to look into whether the great expenditure of time and money on workshops is appropriate.
8. Coordination of the KAP should remain at the Health Education Center in order to ensure that the focus is on health education and that the experience and results are used in its planning.
9. All data entry and analysis should be carried out in Swaziland, and the data should be retained there for further analysis as necessary.
10. The Health Education Center should use the data from the KAP as the basis for planning its activities and materials production.

Chapter 1

INTRODUCTION

1.1 Background

1.1.1 The Rural Water-Borne Disease Control Project

The Swaziland Rural Water-Borne Disease Control Project (RWBDGP) began in November 1980 and was to conclude in 1986. It was subsequently extended to 1988. Its purpose is to expand the capacity of the Government of Swaziland (GOS), and the Ministry of Health in particular, to deliver effective preventive health services to reduce the prevalence of diseases related to water and poor sanitation. The project has five major components:

- 1) social science surveys to establish a basis for the design of the health education component specifically tailored to suit the cultural and social traditions of Swaziland;
- 2) health education instruction at the community worker level related to the promotion of healthful behaviors regarding water and sanitation;
- 3) epidemiological surveys to help establish priorities for health education, sanitation, and other interventions, and to expand the technical capacity to detect water- and sanitation-related diseases;
- 4) support of the existing rural sanitation program through construction of low-cost, technologically appropriate facilities and training of community workers; and
- 5) institutionalization of health criteria into the design of water-related projects and the establishment of an official public health engineering presence within the GOS.

The principal project resource has been technical assistance from a social scientist, health educator, sanitarian, public health engineer, epidemiologist, and short-term consultants (mass-media, diarrheal surveillance). Other inputs included academic training in the United States, construction of the Health Education Center (HEC), vehicles and materials for the health education and sanitation components, and housing for technical advisors.

According to the mid-term evaluation report (April 1984), it was agreed that there was a need for technical assistance in the area of public health engineering with respect to water supply and major water project design and that this would be an important area for the project to address. A program to improve rural sanitation through latrine construction and use was another necessary aspect of the project. Also, if the people were to obtain the full

potential benefits of water supply and sanitation improvements, health education had to be a major component. It was recognized that the GOS would have to increase its capacity through personnel training and institutional development if it was to continue to increase safe water use and provide the means for safe excreta disposal and at the same time emphasize health education.

According to the 1986 final evaluation, the RWBDCP operates primarily within the jurisdiction of two ministries, the Ministry of Health and the Ministry of Natural Resources. Both underwent changes after the mid-term evaluation at the end of 1983. The RWBDCP deals with four main Ministry of Health units: the Health Inspectorate (HI), the Health Education Center (HEC), the Public Health Unit (PHU), and the Bilharzia Control Unit, one of the ministry's vertical or non-regionalized programs with central facilities (e.g., control of malaria, schistosomiasis, and tuberculosis).

The senior health inspector of the Health Inspectorate provides supervision to both the health inspector and health assistants, who have direct regional responsibility for field programs. As such, the inspectorate was involved in the health education efforts of the RWBDCP. In addition, the Health Inspectorate has general responsibility for programs in the water and sanitation sector. It is also linked to the project by its responsibility for water supply protection, general sanitation, bilharzia control, and its technical assistance responsibilities to rural health motivators. The health assistants and inspectors are responsible for motivating communities to accept sanitation measures, initiating health education activities in the community, and providing assistance in latrine construction.

The Health Education Center, established in 1977 and expanded by the project, is the prime health education vehicle in water and sanitation and the main focus of much of the project's activity. It is charged with all program development in health education, liaison with other health education and related organizations, and technical assistance and training for regional health workers, both government and private.

The Public Health Unit was linked to the project through the first Mass Media for Health Practices campaign in 1982, and through its management of the second campaign in 1983. The Expanded Program in Immunization (EPI) and diarrheal disease control activities are based in the Public Health Unit.

Another main focus of RWBDCP activity is the Rural Water Supply Board (RWSB), which was under the Ministry of Works, Power, and Communication when the project began but which is now under the newly created Ministry of Natural Resources, Land Utilization and Energy. The public health engineering advisor has been directly linked to the Rural Water Supply Board throughout the second half of the project, working with a counterpart assigned by the board.

According to the national water supply and sanitation policy draft prepared in 1986 by the National Action Group (NAG), which was formed to implement programs related to the International Drinking Water Supply and Sanitation Decade, primary responsibility for sectoral development will be as follows:

Water Supply	Rural Water Supply Board
Sanitation	Health Inspectorate
Health Education	Health Education Center
Community Organization	Health Inspectorate and Rural Water Supply Board

1.1.2 The Health Education Center

The Health Education Center was established in 1977 when several public health nurses in the Public Health Unit were designated to be primarily responsible for the health education efforts of the Ministry of Health. A World Health Organization (WHO) health education advisor was to be acting director of the new center. Under the RWBDCP a separate facility was built, and the health education staff moved in in 1981. At its dedication, the minister of health called the building the "Health Education Center," according to the senior health education officer who continues to use that name. Nevertheless, there are many references to the Health Education "Unit" in Ministry of Health and RWBDCP documents and discussions. There were discussions in 1987 at the ministry about combining the Health Education Center, the Health Inspectorate, and the Public Health Unit and making them responsible to one Ministry of Health officer, but at the time of this consultancy it was not clear how and when this was to be done. At the Ministry of Health debriefing at the end of this consultancy, the medical officer in charge of public health stated that the Health Education Center was to be a resource for all health education efforts of the Ministry of Health, serving as a technical back-up for central units of the ministry as well as for regional offices. The term, "center," fits this concept; hence the name, Health Education Center will be used throughout this report.

Under the RWBDCP the primary inputs into the Health Education Center have been the provision of technical assistance, construction of a building, and support for long-term training of staff and for production of health education materials. Other health education activities supported under the project have been placed outside the Health Education Center, due to difficulties in establishing an effective role for the advisors, to a shortage and lack of continuity of staff, and to "conflicting demands on staff time," according to the final project progress report. The report stated, "...many health education resources for the support of health programs which should be concentrated in the Health Education Center either do not exist or have been developed within the Public Health Unit." Under the project extension, there is continuing support for materials production, and the public health engineering advisor based at the Rural Water Supply Board continues to encourage efforts of cooperation and linkage between the board, the Health Education Center, and the Health Inspectorate.

1.2 The Consultancy

1.2.1 Rationale

The RWBDCP extension documents state that the Health Education Center is to be assisted by a health behavioral change and education specialist to conduct a study in 1987 to assess community health behavioral changes and the effectiveness of health education messages. The findings of this study are to be used to assess the extent of behavioral change to date and to plan the modification or new development of health education materials and strategies and training for field health workers. The Health Education Center also would be assisted in developing a low-cost evaluation methodology and plan for implementing ongoing assessments of its materials and activities.

1.2.2 Request to WASH

In March 1987, a cable from the U.S. Agency for International Development (USAID)/Swaziland to the Water and Sanitation for Health Project (WASH) requested two consultants to assist the RWBDCP extension activities in two areas. The request was for

- (1) A health education/evaluation/KAP (knowledge, attitudes, and practices) specialist for six weeks to assist the Health Education Center in the following areas:
 - a) developing an on-going continuous evaluation system to assess the impact of all health education materials produced by the Health Education Center and the effectiveness of training of health and health-related personnel;
 - b) implementing the system described,
 - c) training the Health Education Center staff in utilizing the system;
 - d) designing a KAP study to measure the effectiveness of sanitation messages developed and delivered through the project;
 - e) training data collectors for the KAP study; and
 - f) training the Health Education Center staff in analysis of KAP study data.

(2) An evaluation/water specialist for three weeks to assist the Rural Water Supply Board in developing an on-going evaluation/assessment system to provide a basis for evaluation and improvement of water and sanitation sector activities, as follows:

- a) coverage of water and sanitation systems,
- b) impacts on health status,
- c) linkage between water, sanitation, and health education activities,
- d) use of water supplies (both actual and intended),
- e) maintenance operation,
- f) community involvement, and
- g) appropriateness of system plans.

This report covers the work of the health education consultant.

The evaluation/water specialist arrived first in June and overlapped with the health education/evaluation/KAP consultant for a week. This provided the two with an opportunity to make each other aware of the need and potential for linking the two assignments, but time was insufficient to do more than that. The KAP consultant tried to encourage the Health Inspectorate/Rural Water Supply Board to collect information for the program status report form and to relate proposed survey questions to information which would be provided from the health assistant visit report, community profile, and homestead survey developed for the water and sanitation sector evaluation system.

1.2.3 Scope of Work

The purpose of the health education consultancy was to assist the Health Education Center to undertake a knowledge, attitudes, and practices (KAP) survey to assess health behavioral changes and the effectiveness of health education messages. The findings of this survey were to be used to assess the extent of behavioral change to date and to plan health education activities, materials, and training for field workers. The consultant was also to assist the Health Education Center to develop a low-cost evaluation methodology and plan for ongoing assessments of the center's materials and activities. This was to include implementing a continuous assessment system, training the staff of the Health Education Center to use it, and training data collectors for the KAP survey and the staff of the Health Education Center in how to analyze the KAP study data.

The RWBDCP extension paper, written in 1986, stated that the consultant and the Health Education Center should be sensitive to the center's personnel constraints and not plan activities that could not reasonably be carried out. Since that time, the staffing situation has worsened. For this and other reasons (e.g., time constraints of the consultancy and the fact that no current system of evaluation existed), the senior health education officer and the consultant decided to limit the scope of work to some extent by selecting the two areas of most activity--materials production and training.

It was decided that a good start could be made on designing a KAP survey, but that it was unrealistic to expect the consultant to train Health Education Center staff to collect and analyze KAP data, especially since the senior health officer was out of the country in another USAID-sponsored activity for the latter half of the consultancy. The scope of the KAP survey on the effectiveness of health education messages was widened at the request of the Health Education Center to cover all components of primary health care, including water and sanitation. Technical assistance, funding, and other resources to carry out the study were available within the USAID-funded Primary Health Care Project's work plan.

1.2.4 Dates and Itinerary

The consultancy was from June 22 to July 30, 1987, and included a day of orientation and planning with the WASH staff in the United States. The consultant spent part of the first two weeks reviewing documents and familiarizing herself with the staff and activities of the Health Education Center and with local resources. As the senior health education officer was not available after July 10, the consultant spent a considerable amount of time with her, learning what she wanted from this assignment and planning with her how to go about it. The last three weeks were spent with the remaining members of the Health Education Center staff to catalog and field-test the posters, to follow up on previous workshops, and to plan a KAP survey based on the health education messages. (See Appendix A for a list of persons contacted.) The final two days included debriefings with the KAP working committee, the Ministry of Health (see Appendix B for a list of the people who attended the meeting), and USAID.

Day-trips outside Mbabane included (1) a community immunization day at Lubomba, (2) a Regional Health Management Team meeting at Mankayane, (3) a primary health care workshop at Manzini for clinic nurses and health assistants, (4) rural health motivator pre-service training at Ensingweni, (5) water and sanitation projects near Mpofu, and (6) field-testing of posters at Luyengo.

1.3 Organization of This Report

One chapter is devoted to each of the three main tasks of the consultant: evaluation of materials (Chapter 3), evaluation of workshops (Chapter 4), and the KAP survey (Chapter 5). Chapter 2 discusses the constraints and resources of the Health Education Center. Each chapter concludes with a list of recommendations.

Chapter 2

THE HEALTH EDUCATION CENTER: RESOURCES AND CONSTRAINTS

2.1 Background

A primary objective of the RWBDCP was to develop a capacity in health education program planning, implementation, and evaluation within the Government of Swaziland. At the beginning of the project, the health education staff of the Ministry of Health consisted of three public health nurses, a visual aids assistant, and the WHO advisor. Two project-funded health education advisors had been involved in attempts to set the direction of the health education efforts under the project. The first left after only eight months in May 1982, and his successor worked from February 1983 through January 1985. The present head of the Health Education Center (a senior health educator) was overseas during much of this period, as was the visual aids assistant. In the interim a long-term WHO health education advisor took over as acting head of the unit, resuming his advisory role when the senior health educator returned in late 1984 and was subsequently appointed as director.

The mid-term evaluation in 1984 noted that the health education component of the RWBDCP was constrained by many factors from implementing the program and developing itself institutionally. It stated that, in effect, this component had experienced a one- to two-year delay by the time the senior health education officer returned from her U.S. training to take up the directorship of the Health Education Center. The final evaluation in 1986 noted that the general lack of personnel in that unit had frustrated long-range planning and evaluation efforts.

2.2 Resources

2.2.1 Staff

In the early stages of the RWBDCP, a larger Health Education Center staff was anticipated. In 1982, a five-year plan was developed which included a decentralized and fully staffed unit of twenty-three professional/technical and five support staff; this staffing was never approved by the government, although the Ministry of Health has adopted a policy of decentralization.

The current approved staffing consists of eight professional/technical staff positions and two support staff positions (i.e., typist and driver). One of the professional posts has not been filled and two others are being held by assistant health education officers who will be involved in long-term training from August 1987 until 1989 or 1991. According to government policy, these posts cannot be temporarily filled while those who hold them are away. The possibility of a Peace Corps volunteer artist has been raised, but no definite plans have been made. Hence, the staffing situation is similar to that which

existed in 1982 when, upon completion of the first KAP, Edward Green, the RWBDCP social scientist, noted in his report, "Unfortunately, the current size of the [center's] professional staff--especially its de facto size while staff members are undergoing overseas training--is currently so small that it will be difficult to implement some of the above recommendations."

The staff currently available to carry out the activities of the Health Education Center consists of the senior health education officer, three health education officers, and a visual aids assistant. Two of the health education officers are responsible for two regions each (Hhohho/Shiseweni and Manzini/Lubombo) while the third is responsible for nutrition education for the entire country and is currently involved in the national infant-feeding survey. Figure 1, the calendar of activities for one month of one of the regional health education officers, illustrates how heavy their workload is made by their attempts to meet both central and regional responsibilities.

As in many externally funded projects, staff training has been a major element in institution-building plans. This has led to a "tag-team" effect in national staffing, with one or two members of the Health Education Center staff away on long-term training assignments throughout the life of the project. Within the past two years, two assistant health education officers have left for further long-term training in the United States; the WHO advisor has assumed responsibilities as WHO country liaison, leaving him with little time available for the Health Education Center; and a United Nations Development Program (UNDP) graphic artist has left the center and is currently working with the United Nations Children's Fund (UNICEF). The result is that the demand for health education materials and support for regional health education activities exceeds the capacity of the present staff, as noted in the RWBDCP extension paper.

The administrative analysis for the project extension states that, due to the shortage of field and headquarters staff and limited funds, the Health Education Center has been unable to develop adequate in-house capability to assess the impact of health education programs on community health practices. At present the unit focuses instead on training field workers in response to various Ministry requests. There is no educational media expert to develop and pretest the education message before the graphic artist produces the materials. The unit has been developing health education materials on an ad hoc basis, responding to individual health worker requests. Procedurally, the unit should respond to materials requests identified by and communicated through regional health management teams. However, due to the recent launching of the Ministry of Health's decentralized approach to health care management, passing health education requests through the regional health management teams is a practice which has not yet been fully developed. The USAID-funded Primary Health Care Project will assist the regional health management teams to improve their operations.

Virtually all of the present Health Education Center staff have been with the center for seven or more years, some since the beginning ten years ago. Some of them believe that there is little acknowledgment of their contribution within the Ministry of Health. They object to health education activities being carried out outside the Health Education Center, leaving it with the more routine aspects of the program. Some feel that continuing education and other professional development opportunities are offered to those who are

Figure 1

A Regional Health Officer's Activities for One Month

APPENDIX : SAMPLE OF REGIONAL HEALTH EDUCATOR ACTIVITIES

9 CENTRAL/NATIONAL
15 REGIONAL
7 COMMUNITY/INHUNDOLA
8 MASS MEDIA/RADIO
ACTIVITIES FOR JUNE

SUN	MON	TUES	WED	THUR	FRI	SAT	NOTES
<p>1st</p> <p>Wrote 1 column for The N.H.O. on the Community Health Committee. From visit. No. 10. Home clinic on the same about mission.</p>	<p>2nd</p> <p>Monday in the office. 9 AM meeting at 9 AM on review of working hours. At 11 am. collected Community meeting for the health workshop. At 12 noon. returned to office.</p>	<p>3rd</p> <p>Meeting at the Gut Health TV. went to organize for the World Health day at Lobamba on the 27/6/87. Afternoon - Prepare scripts for Radio Programmes to be recorded in evening.</p>	<p>4th</p> <p>Cont. Scripts writing. At 10 am. went to S.B.S. to record the two programmes - 5.5 week and English for the week. Afternoon - Editing the programmes.</p>	<p>5th</p> <p>Attended the Health Advisory Council meeting at Health Hospital at 9 am till 1 pm. Afternoon returning home.</p>	<p>6th</p> <p>Final arrangements for the celebration of the Environmental Day which was a take place the following day.</p>	<p>7th</p> <p>Attended briefly the Environmental Day Celebrations. Ministry of Natural Resources. concerning the Public.</p>	<p>Melkhisi E. Turner</p> <p>Assigned to two Regions. Hhachha and Shikhele. I'm a member of the Hhachha Health Educator should be fully involve with all the activities taking place in these regions but I at times he held a great. The Health Educator, like organizing and running workshops for this year I had implemented 3 workshops in Lobamba hospital. However, more than 1000 people have been involved in the P.H.C. project workshop which take place in every region as a result of this. Also the nutritional course was one day sessions which was fully involved which was one in every region. These were for the community where there are now. Also he involved in the N.C.O. assembly activities which is mainly involved with Primary Health Care projects. I am a member of the National Clean up Campaign which started on the 5/6 and is going on. He joined the W.H.O. Poster and wrote the Hospital staff report on tobacco and 3-yrish.</p>
<p>7th</p> <p>On duty at C. Simanga's shop recording the Malaria Service. Conducted by the Suburban Association. I'm a member.</p>	<p>8th</p> <p>Attended a short meeting on teaching manual techniques with Dr. Jones. Then at Hhachha Hospital meeting with the nurses. Nurse visitors will be face. Spent a night over here.</p>	<p>9th</p> <p>Attended the A.H.M.T. meeting for Shikhele Region at 8 am - 12 noon. At 2 pm. had a meeting with supervisors in preparation for the health workshop which was to start on the 15/6. 3 pm. returned home.</p>	<p>10th</p> <p>8 am. - Editing scripts for the two Radio Programmes. At 11 am. went to S.B.S. to record. Afternoon editing.</p>	<p>11th</p> <p>Attended A.H.M.T. meeting in Hhachha region from 9 am to 4 pm. at Figo's Park Hospital.</p>	<p>12th</p> <p>8 am. went to Hhachha. Inhunduwa meeting with chiefs of that area to discuss and prepare for the W.H.O. celebrations for Shikhele region. National Administrative who present.</p>	<p>13th</p> <p>off duty</p>	
<p>14th</p> <p>off duty</p>	<p>15th</p> <p>7 am. went to Inhunduwa for the official opening of the health workshop which was opened by the Minister for health. 8 am. meeting with me to cover the work. Came home at 7 pm.</p>	<p>16th</p> <p>Attended A.H.M.T. meeting at F.P. for Hhachha region at 10 am.</p>	<p>17th</p> <p>Attended official opening of the P.H.C. course at Mzimba Mhambane which was opened by the Regional Secretary of Hhachha region. Returned home at 6 pm.</p>	<p>18th</p> <p>8 am. writing scripts for the Radio programme. At 10 am. went to S.B.S. to record. Afternoon editing.</p>	<p>19th</p> <p>Final arrangements for the celebration of the W.H.O. day at Lobamba Inhunduwa. Had a meeting with the area chiefs and collected food stuffs to be cooked etc.</p>	<p>20th</p> <p>8 am. Attended a one day Seminar by C.O.S.A. Ministry to record the speeches for radio programmes. This went on until 10 pm.</p>	
<p>21st</p> <p>off duty</p>	<p>22nd</p> <p>A.H.M. course started at Gage. Briefly went there for the official opening. Afternoon did final preparations for the Nurses Assignments workshop.</p>	<p>23rd</p> <p>Nurses Assignments workshop started and was organized and conducted by me and with the help of my colleagues. Show films in the evening.</p>	<p>24th</p> <p>8 am. Continue Nursing Assistants workshop. Afternoon - write scripts and record the 2 programmes.</p>	<p>25th</p> <p>Continue Nursing Assistants workshop. Official closing at 12 noon - 1 pm. Afternoon. Departure of participants.</p>	<p>26th</p> <p>at 9 am. Went to Hhachha Hospital for a meeting with the Hospital heads and A.H.M.T.</p>	<p>27th</p> <p>The day started at 8 am and ended at 4 pm. At Lobamba Inhunduwa. W.H.O. Day was celebrated and the guest speaker was the Minister for health.</p>	
<p>28th</p> <p>off duty</p>	<p>29th</p> <p>8 am. Prepared scripts for Radio programmes and recorded the programmes. Afternoon editing the programmes.</p>	<p>30th</p> <p>9 am. Attended the A.H.M.T. meeting at Hhachha Hospital which finished at 12 noon. Returned Home at 5 pm.</p>	<p>1st July</p> <p>Chiefs meeting at Hhachha with Dr. Simanga. The W.H.O. Day which will take place on the 11/7/87.</p>				

involved in special projects based outside rather than to those within the Health Education Center. Some also are dubious about their ability to encourage and support regional health education activities in two regions while they are based at the center. There was enthusiastic support for the idea of evaluating their activities and effectiveness.

2.2.2 Decentralization

The 1986 final evaluation noted that the Ministry of Health is responding to the government's policy of decentralization and is stressing activities centered in the regional health management teams. These teams comprise the heads of each ministry program unit in the region. The ministry is currently taking steps to strengthen the health care planning and delivery process at the local level, with the central level providing guidance and support. One of the goals of decentralization is to de-emphasize the central control aspects of the Ministry of Health, and to emphasize support activities and program development targeted toward the field.

According to the Ministry of Health "Guidelines for Future Operation of Health Services in Swaziland" (January 1986), "...Decentralization requires a different focus on how headquarters officials view their responsibilities.... The prior traditional centralized structure had an emphasis on control rather than on supporting activities and program development. Not only were the management control functions apt to be inefficient when far removed from field operations, but the energies of the central ministry's most talented and creative people were primarily used in working out detailed operations and paperwork. Little time was left for attending to critical issues, public policy, program monitoring and strengthening."

2.3 Constraints

2.3.1 The Impact of Absences for Long-Term Training

Long-term training is a necessary investment in building institutional capacity. However, it carries with it short-term implications for project development, momentum, and institutional strengthening, especially in a center with a small staff. When staff members are overseas, it is difficult for them to remain in touch with the center's progress and problems and to catch up on these events when they return after two or three years to take up a full-time position of greater responsibility.

The staff who stay behind may develop special skills by participating in special assignments, such as the Mass Media and Health Practices Project. When it is their turn for overseas training, it is not easy for them to transfer their skills to other members of the staff. Some of the special skills developed during previous project-related activities, such as the Mass Media Project, or in projects based in other units, such as the WHO-sponsored immunization project, are not currently available among the Health Education Center staff. These skills include field survey design, survey instrument development, and data analysis and interpretation.

The disruption in continuity and "institutional memory" and the temporary loss of available skills are inevitable accompaniments of the participant training approach to institution-building in small units. The Ministry of Health expects the Health Education Center to be a resource to all ministry health education and training efforts, including those in the regions, but in reality the center has a limited staff, and staff with experience in mass media and survey experience are temporarily absent. The 1985 evaluation of the Mass Media and Health Practices Project mentions some of these issues as "institutional obstacles." This critical shortage of staff occurs at the end of the Fourth National Development Plan, which identified health education as a major priority. Additional assistance, staff, and skills are needed now, when the extension of the RWBDCP requires the strengthening of the health education component of water and sanitation activities and a major KAP survey is being planned under the direction of the HEC.

Health Education Center staff members must set aside hopes for developing new programs or evaluating existing efforts in order to meet the demands of training activities, such as workshops and participation in pre-service training of other health personnel, of responding to Ministry of Health and non-governmental organization requests for materials preparation (e.g., Trade Fair, Alcohol Awareness Week), and of regular administrative, regional, and broadcast duties. In the 1986 annual report, the senior health education officer stated, "About 50 percent of the time was spent in meetings instead of implementing the Health Education training plan."

2.3.2 Coordination of the Health Education Center, Health Inspectorate, and Rural Water Supply Board

The final evaluation stated that the Public Health Engineering Unit, the Health Inspectorate, the Health Education Center, and bilharzia control or epidemiology unit were not integrated or linked. It recommended that a consultant look at the problem of integration to determine at what level it should occur and suggest an implementation program.

Both the Rural Water Supply Board and the Health Education Center recognize that health education is essential if the full benefits of improved water supply and sanitation facilities are to be achieved. There has been some difficulty in identifying specific needs and programs which can be effectively coordinated and implemented by the three units primarily responsible--the Health Education Center, Health Inspectorate, and the Rural Water Supply Board. The Health Inspectorate is responsible for the water and sanitation activities of the Ministry of Health, which it carries out primarily by means of health assistants who work in communities to assist in latrine construction and water protection. Several workshops have been held under the joint auspices of the Health Education Center, Health Inspectorate, and Rural Water Supply Board to increase the health education and community participation/mobilization skills of the health assistants, but follow-up support has not been given to them and their efforts have not been evaluated.

A health inspector has been posted as liaison between the Health Inspectorate and the Rural Water Supply Board, dividing her time between two offices in an attempt to increase the communication and cooperation of the two agencies and support for their work in the regions. The public health engineering advisor has continued to encourage these efforts in the Rural Water Supply Board, Health Inspectorate, and Health Education Center, with success limited by communication and transportation difficulties, existing workloads, and other problems detailed in the 1986 final RWBDCP progress report.

According to the health inspector liaison with the Rural Water Supply Board, the health assistants are often unsure of what messages they are responsible for getting across to the community and how they can best increase the effectiveness of their water and sanitation activities. The project final report recommended that a "field survey on knowledge, attitudes, and/or practices related to water, sanitation, and health" be carried out and that the results form the basis for health education materials and support for the health assistants. This will be discussed further in Chapter 5.

In August 1986, the senior health inspector of the Health Inspectorate issued a memo to all health assistants noting their responsibilities in coordinating their efforts with the Rural Water Supply Board:

"It is the responsibility of every Health Inspector, Senior Health Assistant, and Health Assistant to make sure that he works effectively with the Rural Water Supply Board. Where new water systems are being planned and constructed, Health Assistants must be involved from the beginning to:

- provide health education on water and sanitation-related disease, the importance of having sanitation with water supply, proper use of water for all household purposes, and personal hygiene. This must begin at the earliest meetings with the community;
- provide motivation and assistance in latrine construction. This can begin before construction of the water supply;
- assist the communities in organizing participation in trenching and providing other labor during construction of water supplies, as well as assisting communities in latrine construction."

Despite many recommendations and attempts at joint meetings and activities for these three units, there appeared to be little recent or current activity in relation to the Health Education Center. As noted in the final project report, "The staff of this Unit are hard pressed and able to do little to meet their own needs at the present, let alone provide assistance to other units." However, this consultant noticed three encouraging signs in this regard. The senior health education officer has expressed a desire and willingness to assess the impact of health education efforts "to find out if people understand what we are trying to put across." She requested assistance "to

develop a questionnaire to ask the public about all the PHC [primary health care] components," including water and sanitation, and organized a steering committee to plan a KAP survey. Another sign of interest in joint cooperation was the senior health education officer's request that the visual aids assistant and health inspector in charge of liaison with the Rural Water Supply Board make a field visit to take photographs for a display on water and sanitation at the Trade Fair. This was done, and the display is being prepared at the Health Education Center. Another example of cooperation occurred when the health inspector requested assistance in translating the Rural Water Supply Board homestead survey, developed during Robert Gearheart's recent WASH consultation. The Health Education Center staff member with experience in survey questionnaires was on leave prior to departure for long-term training in the United States, but he agreed to assist with the translation and to offer suggestions based on his experience with the mass media and immunization surveys.

2.3.3 Delay in Training Health Assistants

An additional constraint on community health education activities is the delay in reinstating pre-service training for health assistants as planned in the Fourth Five-Year Development Plan and the National Plan for Action in the development of water supply and sanitation. The RWBDCP final evaluation indicated that this training might begin in 1987, but it appears to be stalled because of the lack of training staff and indecision about entry-level qualifications in relation to other Institute of Health Sciences programs. Current recruiting efforts should solve the first problem; the second problem may require further debate and compromise. In the meantime, a critical shortage of field manpower for the support of community water and sanitation activities persists. This shortage is gradually being alleviated by the extension of rural health motivator coverage, at least in the areas of health education for safe water and sanitation; but rural health motivators are not prepared in the areas of latrine construction and community mobilization as are the health assistants (see the PRICOR Rural Health Motivator Study, 1986).

2.4 Recommendations

1. The Ministry of Health should resolve the issues impeding the reinstatement of health assistant training.
2. The Health Education Center, Health Inspectorate, and Rural Water Supply Board should increase communication and cooperation in planning and providing support for field workers and outreach.
3. The Health Inspectorate/Rural Water Supply Board liaison should collect information on the in-service education needs of health assistants and work with the Health Education Center, Health Inspectorate, and Rural Water Supply Board to meet those needs.

4. The Health Inspectorate monthly reports from field workers and the information gathered in the Rural Water Supply Board evaluation system should be utilized in the planning and evaluation of the KAP responses, in order to maximize information resources and verify progress.
5. The Health Education Center should decrease the administrative and central-level activities of the regional health educators so that they have more time to develop regional resources for health education at the community level.
6. The Health Education Center and USAID should schedule consultations and other technical assistance to allow maximum availability and participation by key staff and to minimize disruption of their ongoing activities.
7. The Health Education Center, Ministry of Health, and USAID should look closely at the effect of long-term absences on the capacity of the Health Education Center to carry out routine activities, develop new programs, and evaluate present activities.
8. The Health Education Center, Ministry of Health, and USAID should explore ways in which staff members who are participating in long-term training abroad could maintain their contact with and contribution to the work on the Health Education Center. One possibility to consider is to have the staff members return during summer break to undertake projects or tasks not possible within the workload of existing staff. Many U.S. universities would consider independent study credit for such activities, which would allow the staff person to increase the relevance of his or her training and keep in touch with the progress and problems of the unit.

Chapter 3

HEALTH EDUCATION MATERIALS

3.1 Development and Production

Regarding health education materials, the Health Education Center is at present focusing on posters and radio programs, a reflection of staff expertise, staff shortage, and apparent priorities. The two regional health educators are responsible for bi-weekly, 15-minute health programs in English and siSwati; they are both members of the National Association of Development Program Producers. They select, record, and edit their own material for presentation. During this consultancy, the focus was on alcohol use, in preparation for the National Drug and Alcohol Abuse Week at the end of July 1987. One of the health educators assumed all of the preparation and broadcasting responsibilities for this period because her colleague was prohibited from "going in front of the public" during a period of mourning for a close relative. Tapes of programs are kept at the Health Education Center for reuse; occasionally they are taped over if tapes are in short supply or if it is felt that they will not be useful at another time.

In 1986 one of the health educators organized the cataloguing and sorting of tapes into categories by topic and year of production. The list was not available, and the person who compiled it said it needs to be updated. An intensive campaign and evaluation of the use of radio in public health education was carried out in 1984-85 under the Mass Media and Health Practices Project associated with the RWBDCP. There is no procedure currently in place for the evaluation of these or other materials.

3.2 Inventory of Materials

In consultation with the senior health education officer, the consultant decided that to evaluate the effectiveness of health education materials, it would be best to work with the visual aids assistant on poster evaluation. As there were no records on what posters have been produced and requested and no inventory of posters available, an effort was made to fill that gap. Figure 2 is the list that was made of all posters currently available through the Health Education Center. Currently, posters are stored on shelves or in cupboards, making it difficult to find the one being sought, except by recognizing color schemes. Many of the posters are available in both English and siSwati versions; others have both languages on the same poster.

The visual aids assistant, a former secondary school teacher, has been with the unit for eight years. She received training in the United States in 1982-83 and 1986. Shortly after her return, the UNDP graphic artist left the Health Education Center. The visual aids assistant has developed a form for use by people requesting her services in materials development (see Figure 3). However, this is not in general use yet.

**HEALTH EDUCATION CENTRE:
POSTER INVENTORY**

P.H.C. ELEMENT	TITLE	YEAR	TARGET GROUP	DISTRIBUTION/USE	REMARKS
1. Education Preventing Health Problems	Smoking damages your health	81			
	Add Life to years	82			
	Responsibility for Health	84			
	Healthy living-exercise	86			
2. Nutrition	Malnutrition	80			
	Breast milk is best (C.H.T.W.)	81			
	Grow and eat Nutritious food (H.F.A.)	82			
	Balanced meal	87			
3. Safe water and Sanitation	Good Housing, Latrine, Safe water (H.F.A.)	82			
	Rubbish Disposal	87			
4. Maternal Child Care Family Planning	Make use of your Health services (H.F.A.)	82			
	Go To Clinic (H.F.A.)	82			
	Healthy Children - Healthy Nation (C.H.T.W.)	84			
	Child Health Card	85			
	Wise Farmer Spaces Plants	85			
	Child-spacing: Think of cost	85			
	Husband and Wife join hands	86			
	Man with pregnancy burden	86			
5. Immunization	Vaccination prevents disease (H.F.A.)	82			
	Immunize and protect your child (C.H.T.W.)	84			
	Immunization Schedule	85			
	Immunization-Chance for every child	87			
6. Endemic Disease	Bilharzia	86			
7. Common Disease	Cholera	80			
	Bottle-feeding, cup and spoon	82			
	Diarrhoea foods, during and after	84			
8. Essential Drugs					

Inventory of Health Education Center Posters

Figure 2

Figure 3

Request Form for Materials

HEALTH EDUCATION CENTER

Job Request Form

Name _____ Department _____

Address _____ or Phone _____

Date Today _____ Date Needed _____

INTENDED USE OF MATERIALS

1. Health Education
2. Instruction
3. Workshop
4. Any other (specify)

Will materials be used more than once? Yes No

Type of Format requested (e.g., poster, pamphlet, etc.)

Order taken in by _____

JOB SPECIFICATIONS AND SPECIAL
REQUIREMENTS

MATERIALS LEFT BY CLIENT

The current situation is that a secondary school biology teacher, a community health nursing student, or some other person with a need for a poster will come to the center and talk to the visual aids assistant about his or her request. If the assistant is not in, a message about the request may be taken by the typist. Non-governmental organizations often ask the senior health education officer for a certain kind of poster. Then the visual aids assistant is asked to fill the request. During the time of the consultancy, two posters were in production, one for the alcohol and drug abuse campaign and another for use during the Trade Fair in August 1987. The development and production of posters is hampered at times by the lack of transportation available for the graphic artist to take photographs in the field, to meet with printers, etc.

Another activity of the Health Education Center is participation in a joint project of the Ministries of Health and Education in the promotion of health and hygiene teaching in primary schools. The National Curriculum Center has conducted a survey of 110 out of 500 primary schools to find out "what health facilities and health practices presently exist in the schools, as well as the status of teaching aids and other supplementary materials." The questionnaires were being compiled at the time of this consultancy. When the results are analyzed, they should show how the Health Education Center can assist them to revise the curriculum and create health education materials. Such efforts should be coordinated with the outcome of the KAP survey and follow-up.

3.3 Evaluation

As mentioned above, there is no procedure currently in place for evaluating the materials. The visual aids assistant mentioned lack of transportation as one constraint in carrying out any field-testing beyond discussion of the materials with other staff members. RWBDCP documents record previous efforts to develop a process for evaluating health education materials. A workshop was held in 1982 on the use and evaluation of health education materials. Several members of the staff of the Health Education Center were listed as participants. Two of them left for the United States shortly after the workshop, and they did not know if the proposed follow-up in the report was ever carried out. Wilbur Hoff, the second health education advisor, mentioned in his final report that WASH provided technical assistance in developing guidelines for pretesting visual materials. The guidelines consisted of a "simple questionnaire that when administered could determine a respondent's understanding and acceptability of a visual or written material." He stated that these guidelines were used to pretest all educational materials produced for the RWBDCP. A set of guidelines prepared by WASH consultants J. Lamarr Cox and Ralph Wileman in 1983 was found in the project files at USAID, but neither the senior health educator nor the visual aids assistant recognized these guidelines, perhaps because they were in the United States for training at the time the guidelines were prepared. There are now two copies of these guidelines at the Health Education Center. They were used in planning for the poster field test.

3.4 Field-Testing of Posters

Field-testing of the posters involved selecting one or two posters on each element of primary health care from those listed in the inventory as currently available or in use (see Figure 2), selecting potential field sites from those previously suggested by the senior health education officer, and working with the visual aids assistant on the questions to be used. The questions selected were as follows:

1. Have you ever seen this before?
If so, where?
2. What do you see?
3. What is this about?
4. What does it mean?
5. What should you do?
Do you do it?
Will you do it?
6. Do you like this poster?

Two half-day trips to an urban and rural clinic were made to test people's understanding and acceptance of the posters. The procedure to be used in the field test is shown in Figure 4, steps 7-13.

Responses were obtained from 18 women at the urban site and 16 women, 2 adolescent girls, and 2 young men at the rural site. The testing situation was realistic but not controlled. In both the urban and rural clinics, attempts were made to begin individually with one mother, but crowding and interest in the proceedings quickly resulted in several people participating and responding at the same time. Even under these conditions, the information obtained was useful, so no attempt was made to interrupt the process. The situation necessitated that results be summarized in narrative rather than quantitative form. The visual aids assistant noted that the respondents "felt badly when they were unable to understand the poster," so she took time to explain it to them after eliciting their interpretation.

Five posters are included in this report as samples of the kind of materials developed.

The results obtained for the nine posters are as follows:

- (1) Diarrhea diet: This was one of two posters which had been seen previously, this one by two people. It was generally regarded as having three messages--breastfeed, eat a "3-balanced" diet, and give infants oral rehydration solution when they are sick. Two of these messages were not associated with diarrhea. Several of the foods were not recognized, and one person complained that they were "not natural colors."

Figure 4

OUTLINE OF PROCEDURE FOLLOWED FOR
FIELD-TESTING POSTERS

1. Take one poster from each of the types currently on hand.
2. Sort into primary health care element category (e.g., nutrition, water and sanitation, maternal and child health).
3. List each poster by title within each category. Include year developed, intended target group and use.
4. Select one poster from each category for field-testing.
5. Develop questionnaire to be used with individuals or groups to determine their understanding of and reaction to materials (see sample below).
6. Select sites for field-testing which are representative of intended target populations (e.g., rural/urban, school/clinic, government/ mission).
7. Contact proposed testing sites to arrange appropriate time (e.g., when target group available, when convenient for staff, when transport available if necessary).
8. Take posters and questionnaire to field-site at arranged time.
9. Explain purpose of field-test to staff and target group (e.g., to learn about how useful some health education materials are in order to improve or make more effective ones).
10. Go through questionnaire with several individuals or groups for each poster, writing down responses and comments.
11. Thank participants for their cooperation and help.
12. Compile and summarize results for each site, then compare findings to see if differences exist from one site to another. If there are differences, try to think of why.
13. Decide which posters are understood and effective as they are, which ones need improvement and how, and which ones should be replaced with new ones or discarded.
14. Develop workplan for revision of existing material and development of new materials. Both should include pre-testing before final production. (Note: This step was not completed during this consultancy. Ideally the workplan would include priorities determined by staff and regional health management teams.)

- (2) Child health card (See Figure 5): Understood as showing growth. One person noted that one of the pictured children was "not growing properly because he was not fed well." Most of these women had cards for their children in their possession.
- (3) Immunization--a chance for every child: The photographs were recognized as being about immunization, "putting drops and injection." However, one group of mothers reacted to the child used as the symbol for the Expanded Program on Immunization; they said he "was sick, has goiter and measles, but looks happy." This was apparently a response to the shadow under his chin and the shading on the drawing (see Figure 6). A similar response was reported by the nutrition health education officer at a conference she recently attended in Nairobi. This symbol is used throughout much of Africa. A Nigerian nurse practitioner attributes its origin to an infant formula advertisement in the late 1960s.
- (4) Good housing/water/latrine (see Figure 7): These photographs were understood and, in both sites, elicited complaints about their own sources of water (e.g., "Have to a walk far distance (to get water)," "Not enough water to clean house," "Other people have been given water -- why not us?").
- (5) Rubbish disposal (see Figure 8): This was one of two drawn posters which seemed to have no recognition problems, including its use of the map of Swaziland.
- (6) Family planning--farmer planting: Although the farmer and family were recognized, the interpretation varied: (i) "Family is happy because they are going to get a good harvest--wise farming;" (ii) "If we can all do like him--wise spacing of children is like wise spacing of seeds;" and (iii) from a young man, "The farmer is planting to get a good harvest--the same applies to a family."
- (7) Family planning--two hands (see Figure 9): The hands and the "shadow" people were recognized, but again the interpretation varied: (i) one person's hands were clasped, "praying," the meaning was not understood; (ii) "Father and mother should help each other to bring up children;" (iii) from a young man, "They have a problem, should space their children--this is not the burden of the mother alone;" (iv) from two family planning clinic clients, "If the husband does not want to, the wife cannot plan the family," and "A husband and wife should be one in doing things."
- (8) Smoking: The illustration was clearly recognized, even though it was a line drawing. This poster, like poster 1, had been seen previously. Its interpretation was "The mother is pregnant and coughing painfully, this is bad for the baby's and her health; it is bad for the man's chest too."

Figure 5

REPUBLIC OF SOUTH AFRICA
MINISTRY OF HEALTH
LIKHADI LEMPHILO YEMNTFWANAKHO
CHILD HEALTH CARD

Name: _____ (Child's name)
Date of Birth: _____ Sex: _____
Address: _____
Telephone: _____
Family Name: _____
Primary Care Provider: _____
Date of Issue: _____

PRIMARY IMMUNISATIONS

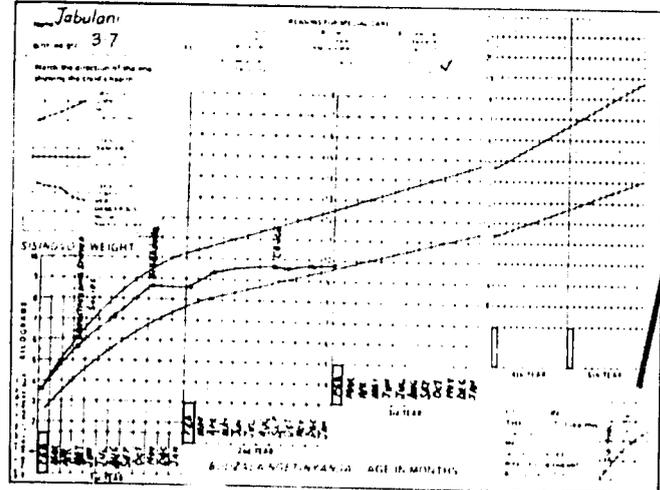
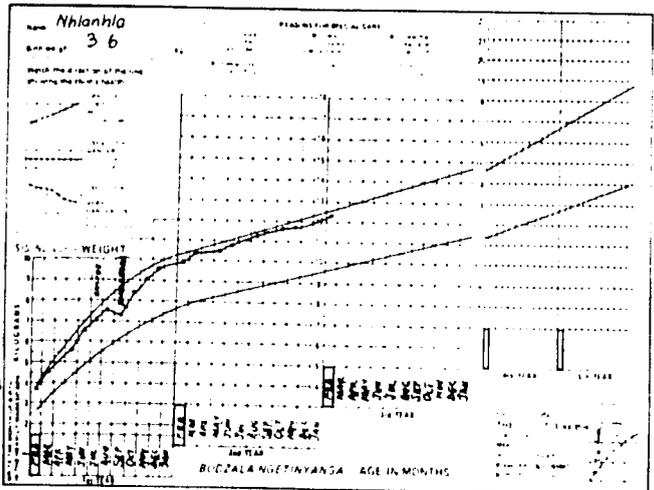
BCG: _____
POLIO: _____
DPT: _____
MEASLES: _____

ADDITIONAL IMMUNISATIONS

HPV: _____
Other: _____

Hola Kukhula Kwemntfwanakho...

Nhlanhla ukhula kahle futsi uphilile Uneminyaka lemibili budzala. Buka kutsi mudze kangani.



Jabulani akasakhuli kahle, sewucale kunomba. Naye uneminyaka lemibili kepha akamudze kakhulu. Jabulani udzinga lusito.

... ngeku mkalisa tonke tinyanga khona utobona kutsi ukhula kanjani





Figure 6

E.P.I. SYMBOL MENTIONED IN
POSTER FIELD-TESTING

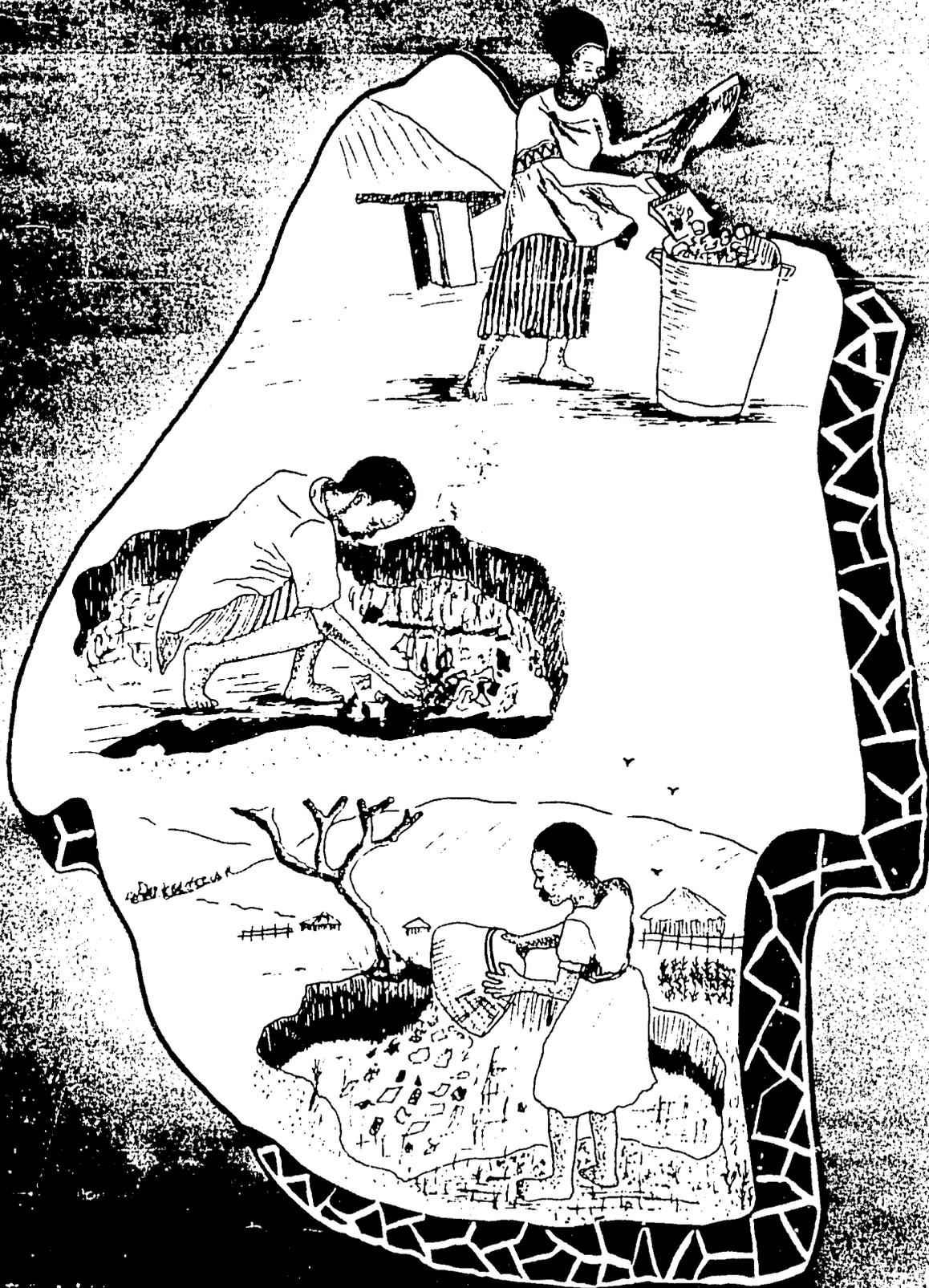
**Imphilo yetfu sonkhe:
Tindlu letinemphilo.
Sebentisa umthoyi lohlobile.
Emanti emtfombho lowakhelwe.**



Health for all: Good housing. Sanitary latrine. Safe water supply.

HLOBISA LIVE LAKITSI

nikola nani ngathana tibi kanje



A CLEAN AND BEAUTIFUL SWAZILAND

MEN TOO CARE ABOUT FAMILY WELL-BEING

Father, Wake Up! Join Your Partner and Decide Now

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c-h-i-l-d s-p-a-c-i-n-g

- (9) Elders--add life to years: The pictures were recognized as "elders sitting down" and "an educated woman coming to a rural area, and community people who can exchange ideas with the educated people."

The first poster was developed by the diarrheal disease campaign, and the two family planning posters were developed by the UNDP graphic artist no longer at the Health Education Center. The visual aids assistant developed the remaining posters.

Lessons learned during the field-testing were as follows:

- Photographs are often better understood than drawings.
- Well-drawn, simple but realistic drawings can be understood.
- Distorted or abstract drawings impede understanding (e.g., poster of the child [EPI symbol]) "with goiter and measles;" two hands in poster 7; color of painted foods).
- Posters can be used to remind or reinforce but often require additional explanation or teaching if their message is to be understood.
- The family planning posters were best understood and explained by clients already at the family planning clinic. These people presumably already had the knowledge and motivation that the posters were supposed to impart.
- Pretesting during development and field-testing prior to mass production could make more effective and economic use of resources.
- Some testing is possible and worthwhile even in the absence of transport.

3.5 Recommendations

3.5.1 Posters

1. The Health Education Center should take steps to organize and display their posters more effectively by
 - displaying currently used/useful posters (by putting them on a rack or mounting them on heavy cardboard) permanently in the proposed library, identifying each by topic and year,

- storing posters according to topic and labeling shelves accordingly, and
 - completing the inventory form (i.e., filling in columns on target group, use/distribution). (See Figure 2.)
2. The Health Education Center should refine and regularize poster request procedures by
- using the existing request form for poster requests, both current and to be developed,
 - assuring that all the forms are completely filled out so that statistics on distribution and use can be obtained, and a work plan based on needs and priorities can be developed for poster production,
 - making sure that the Regional Health Management Teams and health facilities have a supply of request forms so that their needs for health education materials can be communicated and their input in materials development encouraged,
 - reviewing request forms quarterly to assess what subjects should be covered and what other kinds of materials should be developed (e.g., topics for radio programs, fliers), and
 - compiling the information on the request forms annually as a report on the production, distribution, and use of materials developed by the Health Education Center.
3. In view of the findings of the poster field-test and the results of the Mass Media and Health Practices survey, which indicated uncertainty about feeding during and after diarrhea, the Health Education Center staff should collaborate more with the staff responsible for the program to combat diarrheal diseases to produce more effective material on appropriate feeding during and after diarrhea.
4. The Health Education Center should obtain two copies of WASH Technical Report No. 30, Developing and Using Audio-Visual Materials in Water and Sanitation Programs, for use by the center and the health inspector liaison with the Rural Water Supply Board.

3.5.2 Tapes and Other Materials

1. The Health Education Center should update the catalogue of tapes.
2. The center should also develop an inventory for other materials (i.e., radio tapes, slides, filmstrips, fliers, books), similar to the poster inventory, in order to facilitate use of these resources. To do this the center must assign this task to specific staff members, give them the time to do it, and provide assistance where necessary.
3. After the completion and analysis of the KAP survey, the Health Education Center should focus materials development on the needs identified by the survey and on the priorities established by staff discussions with personnel from other Ministry of Health units.
4. The Health Education Center should follow this recommendation from the RWBDCP Final Report (1986): "materials in support of water supply and sanitation, their benefits and proper use, should be prepared, updated, and improved as indicated from evaluations on a continuing basis for: incorporation of health education in school curricula, use in clinic based health education activities, use by Rural Health Motivators and extension workers in assisting communities, and use by Health Assistants providing support to communities in planning and implementing water supply and sanitation projects."

Chapter 4

TRAINING ACTIVITIES

4.1 Background

At present Health Education Center training activities focus primarily on conducting and participating in workshops for health personnel and community groups, such as chiefs, traditional healers, and church leaders. In the past few years many government units, projects, and non-governmental organizations have held workshops for health personnel and community groups that are involved or that could be involved in primary health care.

A schedule of workshops and seminars, along with the names of cooperating and funding agencies, was compiled to provide an overview of the year's training efforts. Those listed on the 1987 Ministry of Health "Training and Retraining Plan" include the Health Education Center, the Public Health Unit, the Primary Health Care Project, WHO, UNICEF, the Family Life Association of Swaziland, the Red Cross, the Combating Childhood Communicable Disease project, the Health Inspectorate, the Expanded Program on Immunization, the RWBDCP, and others. Coordination of these groups, efforts, and resources requires considerable attention and communication. The Health Planning Unit and the training officer who took up this new post last year are making a concerted effort to coordinate these activities this year and to plan for those next year. Prior to the appointment of the training officer this coordination role had been assumed by the Health Education Center.

4.2 Proliferation of Workshops

A quick tally of the 1987 schedule in the training officer's office showed 57 categories of participants, including Ministry of Health personnel and community members. There were 5,045 participants for 11,301 person-days, excluding 200 rural health motivators who had 13,200 person-days of pre-service training on the schedule. Also excluded from this tally is out-of-country, long-term training. Because workshops represent a sizable investment of funds and personnel, it is reasonable to evaluate their appropriateness, effectiveness, and impact. There is considerable discussion among senior Ministry of Health personnel and donor agencies about the large amount of time and other resources spent in workshops this year.

The Ministry of Health participants who were interviewed in the Health Education Center workshop follow-up exercise were also asked how many workshops they had attended since completing their pre-service training. For two hospital nurses, who had been in service for over ten years each, this was their first workshop; one subsequently participated in a cold-chain workshop held by the Expanded Program on Immunization. The four health assistants, all of whom had worked from nine to sixteen years in the Ministry of Health, had attended between five and ten workshops each, most of which had been organized by the RWBDCP in cooperation with the Health Inspectorate and the Health Education Center. This difference reflects differences in workshop purposes given in Section 4.3. (See Appendix C for examples of workshop objectives.)

There is a perception that some people have little time for regular work because they are so busy attending workshops. It is frequently remarked that the same faces are seen at every workshop or that some people are rarely available in the office due to workshop activity. However, in a tally of 65 early returns from a Swazi Nurses' Association survey of in-service training requests, 23 percent had never been to a workshop or seminar; and 52 percent had only been to one in their lifetime. Of the total, 58 percent had attended at least one workshop in the past 12 months; and 25 percent had been to more than one. These early returns, it must be pointed out, may not be representative of Swazi nurses as a whole and should be reviewed after all questionnaires are tallied.

4.3 Workshop Purposes

The purposes of workshops vary but can be categorized into three types: orientation to primary health care; skills development (e.g., management, cold-chain); and networking or planning (e.g., Regional Health Management Team).

4.3.1 Orientation

The first type of workshop may simply acknowledge a particular group's potential contribution (e.g., nursing assistants or church leaders) and attempt to develop understanding and support for a new concept (e.g., primary health care). This purpose is illustrated by the remark of one participant at the closing of the nursing assistant training workshop: "We had never been asked to a workshop before, and we felt that we were looked down upon and neglected. But now we know that we are members of the team, and we can all kick the ball together to the year 2000" (a reference to the WHO goal of "Health for All by the Year 2000"). These workshops generally are shorter and less intensive than the other two types but can have wide impact on the community by facilitating cooperation.

4.3.2 Skill Development

Workshops for specific skills development are usually more focused and intensive. They require careful selection of participants in order to assure that those who need the skills actually attend and complete the workshop. A regional public health matron noted the increased workshop activity to prepare for primary health care and training-of-trainers, calling this kind "an investment in order to do the job, to fill up gaps of people being assigned to new jobs."

4.3.3 Planning

The third type of workshop may involve a specific task, such as the development of regional training plans. Such a workshop is effective when all those who have relevant information and who may be involved in implementing the plan can work together.

4.3.4 Cost Effectiveness

The effectiveness of the latter two types of workshops is lessened when participants are interrupted by the demands of their regular responsibilities, so that continuity and momentum may be lost and group work impeded. Cost effectiveness is an issue that needs to be raised when considering the effectiveness of training efforts and alternative uses of resources. Workshops should relate to participants' jobs. One of the problems with the objectives for primary health care orientation and intersectoral cooperation workshops is that they are often not stated in measurable terms. This makes it more difficult to assess the expected outcome and impact. Another problem is the difficulty in measuring the attainment of some objectives outside of the work setting (e.g., interview or follow-up questionnaire). For objectives which involve a skill or change in behavior, the actual work situation is a more accurate place for assessment when possible.

4.4 Workshop Follow-up

The senior health education officer stated that she and her staff were so busy conducting and being involved in workshops that there was little time left for regional and community activities and no time for follow-up to see if the training efforts had any impact. "To carry on without finding out what the impact is of a training effort is meaningless," she said. Previously an effort was made to follow up on Health Education Center training workshops for chiefs and traditional healers. (See Green, "Community Mobilization," 1983, "Traditional Healers in Swaziland," 1983, and "Traditional Leadership," 1984; Hoff, n.d.; and Tonon, 1984). It was found that follow-up activities provided a means of assessing community health needs and resources and of gaining and disseminating information--first steps in community health education. The present shortage of staff and the crush of other work have made such follow-up efforts impossible, according to the senior health education officer, who was studying overseas when the above work was carried out.

4.4.1 Procedure

To demonstrate a method of assessing training effectiveness, the consultant selected four workshops conducted by the Health Education Center in 1987 for a trial follow-up activity. The selection was made with the guidance of the senior health education officer and the help of the regional health education officers primarily responsible for each workshop. The four workshops had been held between February and July 1987 for hospital nurses, church leaders, representatives from the Mass Media and Health Practices Campaign, and from other ministries, and nursing assistants. The participant groups represent a cross-section of Health Education Center training efforts. Workshop objectives (see Appendix C), lists of participants, and final reports were assembled; a follow-up questionnaire developed; and interviews arranged with several participants. In addition, the closing session of the nursing assistant workshop was observed. Three health assistants who had attended the community participation workshop held under the auspices of WASH and the Health Education Center in January 1986 were also interviewed. With five mass media and intersectoral representatives, two hospital nurses, and one church leader, a total of 11 follow-up interviews with previous workshop participants were carried out. The procedure followed is shown in Figure 10.

Figure 10

OUTLINE OF PROCEDURE FOLLOWED FOR
WORKSHOP FOLLOW-UP

1. Select workshops representative of participant groups (e.g., health workers, community groups).
2. Assemble objectives, list of participants, and workshop reports/recommendations.
3. Develop outline of questions for interviewing participants (see sample below).
4. Select sample of participants from each workshop.
5. Contact each participant selected to set up appointment and explain purpose of interview (i.e., to follow-up workshop in order to determine its effectiveness and get suggestions for further follow-up or improvement).
6. Discuss questions and suggestions with each participant at appointment. Ask for specific examples of how the workshop has affected his/her work or activities; observe if possible.
7. Compile results of interviews for each workshop selected.
8. Decide which workshops were effective and worthwhile, which ones could be improved, and which ones should not be repeated. (Note: This step was not completed during this consultancy. More staff participation and data-gathering would be needed to do this.)
8. Make recommendations for further follow-up or improvements for subsequent workshops.

The follow-up questions were as follows:

Workshop Attended _____

1. What was the purpose of the workshop?
2. What was your purpose in attending?
3. What did you learn?
Was it new to you?
How are you using it in your work?
4. What follow-up do you think there should be?

As some of the participants seemed surprised, and even apprehensive, at being contacted for an interview, a copy of the questions was given to them at the beginning. Having the questions in hand seemed to allay their anxiety and assure them that this was not a test. Although Health Education Center staff members reviewed the questions and made interview appointments, they were not present for the actual interviews. This was in part due to pressure of preparation for the Alcohol Awareness Week and the Trade Fair, which involved committee meetings, poster preparation, and radio presentations.

4.4.2 Findings

As E.C. Green had found earlier in his follow-up of community leader workshops, there was very little criticism of the workshop experience. What criticism there was came out in such comments as "The topics were many and time was short," "What happened to our recommendations?" and "I didn't receive a report back."

Each of the workshops had been held over four months prior to the interview. The recall of specific topics and information was impressive, especially by those who knew in advance they were to be interviewed. They appear to have reviewed the workshop materials in preparation for the interview. One of the topics at the church-leader workshop had been teen pregnancies. The participant recalled the statistics and said, "Children were doubled, so (there are) no places in school. Children were having children. As parents, we must avoid double-multiplication. Today [after the workshop] we can advise people instead of not interfering as before." A health assistant recalled specific items of new learning from workshops one and a half and four years ago on community participation and the preparation of health education materials. His major constraint in putting this learning to use was a common refrain--lack of transportation.

A ward sister who had participated in a primary health care orientation for hospital nurses said she had learned how to approach people who came from inyangas (traditional healers) "who have gained courage and come to interfere with us. I thought it was the educators who gave them permission." After her workshop experience, she had presented a summary to over 30 nurses at the hospital.

4.4.3 Participant Recommendations

The closing sessions of workshops are usually devoted to participant group recommendations. Thus, they provide a forum for sending messages to the public or the government, depending on who attends the official closing and what media coverage it gets. Such matters as housing, incentives, and uniform allowances can be brought to the attention of the ministry official in this manner. In all the workshops reviewed, there were requests for additional workshops, further coverage of certain topics, and similar opportunities for other colleagues and groups. Below are some recommendations prepared at the four workshops the consultant followed up on.

1. Seminars should be held for other cadres involved in hospital work, i.e., orderlies, storemen, and clerks.
2. The Ministry of Health should make a clear-cut policy on traditional healers in relation to their treatment of patients in hospitals.
3. The Ministry of the Interior should set aside funds for conducting a survey to locate areas where the Swaziland Broadcasting Service reception is poor. Then the ministry should rectify the situation so that people in the rural areas receive SBS.
4. The Health Education Center should prepare dramatized programs related to health problems in the country so they can be televised.
5. The Ministry of Interior should stop purchasing television programs from overseas on subjects such as car accident prevention. Such programs should be produced locally.
6. The Ministry of Health should ensure the consistency of message related to health education, through written statements and by identifying at least two people in the ministry who can provide consistent, accurate information upon request.

4.4.4 Conclusions

Preparation of a summary of what was learned would be a good exercise for the closing sessions of most workshops. The summaries provide information for colleagues who did not attend and serve as a form of evaluation as well. Also, other follow-up activities could be devised to reinforce or extend participant learning and increase the impact of the workshop. For example church leader workshop participants could organize an annual "Health Sunday" to promote improvement in community health by encouraging preventive action at the community level. This would enlist church support and provide another channel for reaching large groups of people. A specific message or activity could be targeted, or previous workshop participants could develop their own focus based on the needs of their communities. Such activities mobilize local resources and provide opportunities for participation and learning far beyond the initial workshop.

Workshop participation is generally paid time for health personnel, whether participants, organizers, or presenters. Personnel, time, and money are the most valuable resources of the ministry and have a direct impact on the quantity and quality of services delivered. One African minister of health, noting the amount of resources being spent on workshops, remarked that it seemed the goal was "workshops for all by the year 2000." Another activity which consumes personnel time is committee meetings. Both meetings and workshops can be considered investments in providing health services, but the utility, impact, and cost benefits of such investments are rarely examined systematically. In view of the present level of these activities, consideration should be given to appointing a committee or task force to examine these issues. It might include members from the Health Planning Unit, the Public Health Unit, the Health Education Center, WHO, the Department of Extra-Mural Studies, and possibly the Primary Health Care Project, since it is directly involved in extending and upgrading services.

4.5 Recommendations

1. The Health Education Center staff member with primary responsibility for a particular workshop should ensure that workshop recommendations are passed on to the senior health education officer to be forwarded to the appropriate official or agency.
2. The Health Education Center should devise post-workshop activities to reinforce what was learned.
3. At the closing session of each workshop, participants should be asked to prepare a summary of what was learned to pass on to their colleagues. Recommendations for how the learning can be applied in their own work setting should be included.
4. Whenever possible the staff of the Health Education Center should make some post-workshop visits to participants' work settings to see if workshop learning has been applied.
5. The Ministry of Health should form a committee or task force to look at the appropriate use and effectiveness of workshops involving Ministry of Health personnel. This group should include planning, training, and health education staff from the Ministry of Health as well as adult education specialists (e.g., the Department of Extra-Mural Studies--University of Swaziland, Sebenta) and possibly representatives from donor groups, such as WHO, USAID, or the Primary Health Care Project, who have sponsored training workshops. Guidelines for the use of Ministry of Health resources could be developed, including specific responsibilities for determining in-service training needs, coordination of activities, and evaluating effectiveness. Members of this group could also serve as resource persons for the Rural Health Management Teams in determining regional training needs.

6. Given the shortage of technical staff at the Health Education Center, the increased capacity and interest of the Ministry of Health to coordinate training activities, and the increased emphasis on decentralization, the Health Education Center should shift its emphasis and priorities in the allocation of available staff time. The focus should be on regional and community health education needs as developed with the Rural Health Management Teams and indicated by the results of the health education KAP. Once these needs are determined, the resources of the center should be directed to strengthening health education skills for health assistants and rural health motivators and developing appropriate supportive materials for their use in the community. As staffing permits, the Health Education Center can continue to serve as a resource for in-service training of Ministry of Health personnel as requested.

Chapter 5

THE KAP SURVEY

5.1 Background

5.1.1 The First KAP Survey

A major early RWBDCP activity was a KAP survey carried out in 1981-82 by the project social scientist, E. Greene, in an attempt to establish a baseline for measuring subsequent improvements in health practices and conditions and to provide a basis for developing the project's health education program. The results, as summarized in the mid-term evaluation, were as follows:

"The strategic question raised by the KAP study was whether health education should be directed primarily at those most in need when at the same time this group may be the most resistant to behavioral changes...many rural people could not distinguish between 'safe' and 'unsafe' sources of drinking water. Many were unaware or unconvinced of the health benefits of improved water supply. Its value to them was measured in terms of convenience, not health...The majority of mothers surveyed did not appear to recognize contaminated food and water as major causes of infant diarrhea. It was reported, however, that boiling water for use in preparing baby food was quite widespread...The idea of drinking a mixture of medicinal powder and water is already quite familiar in traditional medicine and that could have a positive effect on the use of oral rehydration salts."

The results of this study and other work by the social scientist provided baseline information for the development of the Mass Media and Health Practices campaign, which apparently has contributed to a significant reduction in childhood diarrheal morbidity and mortality in the past two years in Swaziland. These results provide supportive evidence that efforts to target health education are worthwhile.

5.1.2 The Proposed Second KAP Survey

The RWBDCP contract stipulated that a second KAP survey would be designed and carried out in the fifth and final year of the project. However, the mid-term evaluation of the project, carried out before the results of the Mass Media and Health Practices campaign were known, recommended against a second KAP survey because it would not be "a valid measure of behavior changes resulting from the implementation of the health education program." The evaluators reasoned that knowledge and attitudes do not necessarily indicate behavior,

citing smoking as an example, and that self-reported behavior is not a good measure of "real behavior." Their recommendation in April 1984, as the Mass Media and Health Practices program was beginning, was to carry out a longitudinal study over a two-year period, based on periodic observations of "surrogate indicators" (e.g., evidence of food and water protection in the home, "a well-beaten path to the latrine," no "human stools in the bush," etc.). These observations were to be made by rural health motivators or health assistants.

5.1.3 Tonon's Recommendations

Four months later, Marilyn Tonon, a short-term consultant, arrived to help the project develop a "practical program evaluation of the RWBDCP health education component." Her report (1984) concluded that:

- "It was not feasible or advisable to follow the WASH mid-project evaluation recommendation to institute a longitudinal study as an outcome evaluation. The Health Education Center and others in the Ministry of Health had a limited background and too little experience with evaluation; only limited resources were available; and repeated observations on the same families over time could introduce bias in the study.
- "The most feasible evaluation design would be a second cross-sectional study, repeating selected items from the initial KAP study for comparison and adding a limited number of observational indicators of behavioral change to correct for bias in self-reported behavior.
- "The results of a second cross-sectional study must be interpreted cautiously, since the design provided no control for threats to internal validity. Given the length of time between the baseline study and the final evaluation, factors outside the program were likely to have had an effect on the outcome; yet no measure of them existed. Outcomes from the Mass Media and Health Practices post-program survey could correctly be used as an indication of the progress in water and sanitation hygiene at the homestead level and the basis for further program planning.
- "In order to make the fullest use of resources, and given the similarity of the sample of rural homesteads required by the Mass Media and Health Practices post-program evaluation and the RWBDCP evaluation, the two evaluations should be integrated with field procedures and data analysis carried out together."

During Tonon's consultancy, she developed and field-tested a water and sanitation survey, including a kitchen and latrine observation checklist and a protocol for its use. She recommended that the survey be incorporated in the Mass Media and Health Practices evaluation questionnaire which was being planned for 1985. Apparently this was done, although the results do not appear in the the report of the evaluation. One of the Swazis involved with that

project stated that the primary interest in analysis was the oral rehydration therapy data rather than the water and sanitation data, which was not analyzed and is not available in Swaziland now. Several of Tonon's points were discussed in planning the proposed KAP survey on health education and primary health care.

5.1.4 Current Plans for a KAP Survey

In 1985 the senior health education officer returned from long-term training overseas to take up the directorship of the Health Education Center. The senior health education officer requested assistance "to develop a questionnaire to ask the public about all PHC components," not only water and sanitation. Asking for outside help was necessary because some of the personnel with special skills developed in previous projects such as the Mass Media and Health Practices program are not presently at the Health Education Center. The two assistant health education officers currently are on long-term training assignments in the United States and the two interviewers are currently seconded to the Ministry of Health. The skills which these individuals possess include field-survey design, instrument development, and data analysis and interpretation. The survey envisioned would provide an assessment of current knowledge, attitudes, and practices, upon which to base plans and develop priorities for the next five-year plan.

5.2 The Need for a KAP Survey

The need for a KAP-type exercise was recognized by several individuals and agencies in Swaziland. The senior health education officer wanted to find out if the people understood what the center was trying to communicate and to evaluate the effectiveness of health education messages in all aspects of primary health care. Although the second KAP originally planned for the end of the RWBDCP did not take place, the final report of the project stated: "There is a continuous need for evaluation and field surveys of knowledge, attitudes, and/or practices related to water, sanitation, and health. While experience has been gained in the design, conduct, and interpretation of the results from such surveys....no provision was made during the design of the project for institutionalization of the capacity of the HEC to provide support for the Ministry in this regard.... Specifically with regard to development within the rural water supply and sanitation sector, there is a need for both new KAP assessment and routine evaluation. The latter must be carried on jointly by the RWSB and Health Inspectorate with assistance of the HEC. The former must be primarily an activity of the HEC, and will require both financial assistance and technical support."

Both WASH and USAID had provided technical assistance and financial support to both the Health Education Center and the Rural Water Supply Board through the RWBDCP, and both were interested in evaluating the impact of their investments in water and sanitation.

5.3 Involvement of the Primary Health Care Project

An extensive review of documents in the USAID/Mbabane files disclosed several KAP-related activities included in the Primary Health Care Project work plan. In addition to specific KAP surveys related to child-rearing, -bearing, and -spacing, and one for caretakers of children concerning home treatment of diarrhea, there were several more general terms of reference which could support the involvement of the Primary Health Care Project with the proposed KAP survey. The work plan for the Primary Health Care Project stated that the project was to

- assist with a national survey of health status and the development of baseline data;
- assist in cataloging health-related research and evaluation studies conducted in Swaziland over the past ten years;
- document the experience of the Swaziland Primary Health Care Project in such areas as outreach;
- assist in the collection of information to monitor progress toward the WHO goal of Health for All by the Year 2000;
- develop appropriate monitoring mechanisms and assist in their implementation;
- identify priority areas of evaluation and conduct evaluation studies;
- strengthen clinical competence of clinic staff through conducting KAP surveys; and
- work with the Health Education Center and the Development Communications Project to prepare messages on the home treatment of common health problems.

In addition, the technical advisor for clinic management of the Primary Health Care Project had been assigned the health education component of the project and had been working with the staff of the Health Education Center in planning and implementing several workshops.

Another consideration was funding. Funds for the above activities were included in the Primary Health Care Project. According to the public health engineering advisor who had been chief-of-party during most of the RWBDCP, funds originally intended for the second KAP had been diverted to water projects after it was recommended that a second KAP not be carried out. Although the present consultancy to design a KAP survey was funded by WASH, it was unclear to USAID/Mbabane that there were any funds identified to carry out the KAP once it was designed. Discussions with USAID and the chief-of-party of the Primary Health Care Project resulted in a tentative commitment of funds to cover the KAP survey.

5.4 Personnel

The next constraint in designing and implementing the proposed KAP was personnel. Shortage of Health Education Center staff, current administrative and regional demands, and the lack of survey experience among the available staff suggested that additional resources would be required to implement the KAP survey. The senior health education officer recommended that Dr. E. Huppert be contracted to determine his interest. Dr. Huppert is a former University of Swaziland demographer and statistician who is active in many community health and research activities. He is willing to participate in the KAP exercise as principal investigator; arrangements are being worked out with the Primary Health Care Project to hire him on a half-time basis over the next 12 months.

5.5 Development of the Work Plan

During the last two weeks of this consultancy, a steering committee composed of the proposed principal investigator, the technical advisor for clinic management of the Primary Health Care Project, the nutrition health educator of the Health Education Center, and this consultant worked on a design for a KAP survey and developed a work plan (see Figure 11).

The staff member from the Health Education Center compiled all the health education messages used for each of the components of the Primary Health Care Project, consulting other units, such as the Public Health Unit, the Expanded Program on Immunization, and the Malaria Control Unit. The steering committee organized these measures as the basis for developing the survey instrument (see Appendix D). The steering committee decided to use focus groups of rural and urban males and females in different age groups to develop and refine the questionnaire prior to formal pretesting.

Initial discussions of sample selection led to several tentative decisions: use 25 enumeration areas in each of the four administrative regions; cover different ecological areas; select some areas which are at different stages of water project implementation and health care delivery; and include areas where there are health assistants and rural health motivators. Figure 12 lists some of the variables to be considered.

The Rural Water Supply Board project map lists 222 communities that have made application for a water project. The board was in the process of updating this list to determine the present status of each community with reference to water supply. When the update is complete, the information will be combined with information from the Ministry of Health statistician about the level of health services (e.g., fixed facility, mobile outreach) for each community and information gathered about rural health motivator and health assistant placement. The USAID assistant project officer will oversee the entry of this information on computer in order to facilitate survey sample selection.

A budget was prepared by the Primary Health Care Project advisor and the principal investigator for submission to the chief-of-party of the Primary Health Care Project. The proposed budget and work plan indicate a one-year time period for completion of the survey.

Figure 11

Time Table for Health Education KAP Study

Design study	4 weeks)	
Develop instrument	4 weeks)	3 months (July - October)
Determine sample	3 weeks)	
Select field staff			
Pre-testing	3 weeks)	
Revision)	1 month (Oct. - Nov.)
Developing guidelines	1 week)	
Training of field workers			
Field survey (data collection)	12 weeks		3 months (Jan. - Mar.)
Training of data processing staff			
Data collation	3 weeks)	
Data analysis	4 weeks)	5 months (Apr. - Aug)
Preparation of preliminary report	8 weeks)	
Revision)	
Preparation of final report	4 weeks)	

Note: Initial discussions based on assumption of sample from 25 enumeration areas in each of 4 regions (100 EAs total), with 30 interviewers and 2 supervisors divided into two teams, each doing one EA per day (50 working days).

Figure 12

Variables to Consider in Selection
of Sample for HEC/PHC KAP

1. Administrative/ecological
2. Water supply (e.g., RWSB)
3. Clinic service (e.g., government/mission; outreach/fixed facility)
4. Health extension workers (i.e., health assistant, RHMs)
5. Schools (primary, secondary)
6. Inkhundla committees (e.g., water, school, clinic, women's)
7. R.D.A. status

Survey questionnaire levels:

- (1) community
- (2) homestead
- (3) individual

Focus groups to develop questionnaire:

	Males	Females
Rural	15-20 yrs.	15-20 yrs.
Urban	"	"
Rural	30-45	30-45
Urban	"	"
		Rural over 50
		Urban

5.6 Development of the Survey Questionnaire

The nutrition health educator of the Health Education Center and this consultant began work on the questionnaire, using the identified health education messages to formulate the questions. A list of previous and current surveys was compiled and the results summarized (see Appendix E). Questions were selected from several of these (e.g., the first KAP, the Mass Media and Health Practices evaluation, the National Nutrition Survey, the Family Life Association of Swaziland) to provide a basis for some comparison and measurement of change.

The preliminary list of questions has been compiled (see Appendix F). Now the steering committee, in consultation with other units, is working to develop and refine the questionnaire in order to make the best use of this opportunity without diluting or overloading the instrument. For example, last year, the Expanded Program on Immunization completed an extensive KAP survey of mothers and clinic workers. Several questions from that survey can be included as is in the proposed KAP survey to compare findings and assess progress. The assistant health education officer had agreed to work for the few days prior to his leaving for the United States in order to share his survey experience with the steering committee. The demographic and health status survey planned for early 1988 will cover reproductive issues more thoroughly than is possible in the proposed KAP survey; hence coverage of that area will be limited.

5.7 Data Collection and Analysis

The field work will be undertaken in January 1988, after the Christmas holidays, and should be completed by April when the demographic and health status survey is scheduled to begin. It was estimated that 20 to 30 interviewers would be required for the 100 enumeration areas, but that will depend on the length of the questionnaire, transportation, and supervision capacities. In the 1982 KAP, 89 enumeration areas were used with five homesteads in each and an average of two and a half interviews per day per interviewer due to the great distances between homesteads and difficulty in locating them. The 1982 questionnaire comprised 69 questions, of which 4 were open-ended. It took 30-45 minutes to complete. The 126-question Mass Media and Health Practices evaluation took approximately 45 minutes to complete, according to an assistant health educator involved with the study. That evaluation used 30 enumeration areas with 30 households in each one.

The principal investigator and the technical advisor of the Primary Health Care Project are familiar with survey resources and believe that the computer capacity for data collation and analysis is available within Swaziland. Use of a computer should eliminate one of the problems with several previous surveys: data was taken out of the country for processing and then became either inaccessible or incompatible with future use in Swaziland.

5.8 Status of the KAP Survey at the End of the Consultancy

By the end of this consultancy in July 1987, the steering committee had begun working together, an outline of the KAP process and work plan had been developed, health education messages had been identified, previous and present surveys had been reviewed, work had been started on the survey instrument, and a budget had been proposed. With the return of the senior health education officer from Nigeria, the steering committee should proceed with its work according to the work plan.

5.9 Recommendations

1. Coordination of the KAP project should remain in the Health Education Center in order to ensure that the focus is on health education and that the experience and results are used in its planning. The KAP project should not be considered a research exercise.
2. The KAP steering committee should retain its present composition and should be supported and assisted by the senior health education officer as her other duties permit.
3. All data entry and analysis should be done in Swaziland and the data should be retained there for further analysis or use as necessary.
4. When the results are analyzed, they should form the basis for planning activities and materials production and a well-targeted, coordinated plan should be developed. An example of what might come from the survey would be a project to involve schools and community women's committees in a two-tiered effort on a priority topic identified by the survey.

PHOTOGRAPHS



Photos 1 and 2. Fetching Water





Photos 3 and 4. Health Education Center Visual Aids
Assistant taking pictures of latrine and
piped water for National Trade Fair display



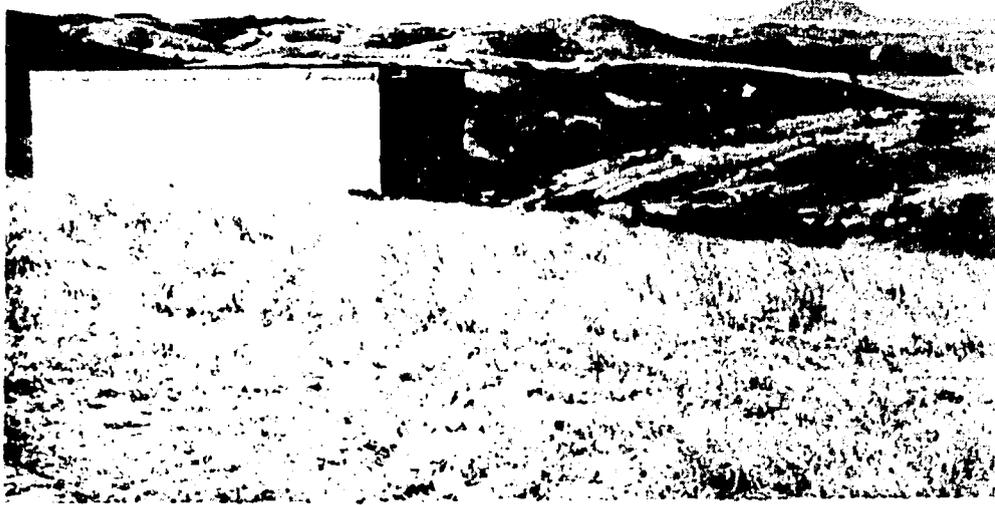


Rural Health Motivator Training, Nsingweni, July 1987

Photo 5. (above) Singing "Watch Out, Germs!"

Photo 6. (below) Demonstration Rubbish Pit

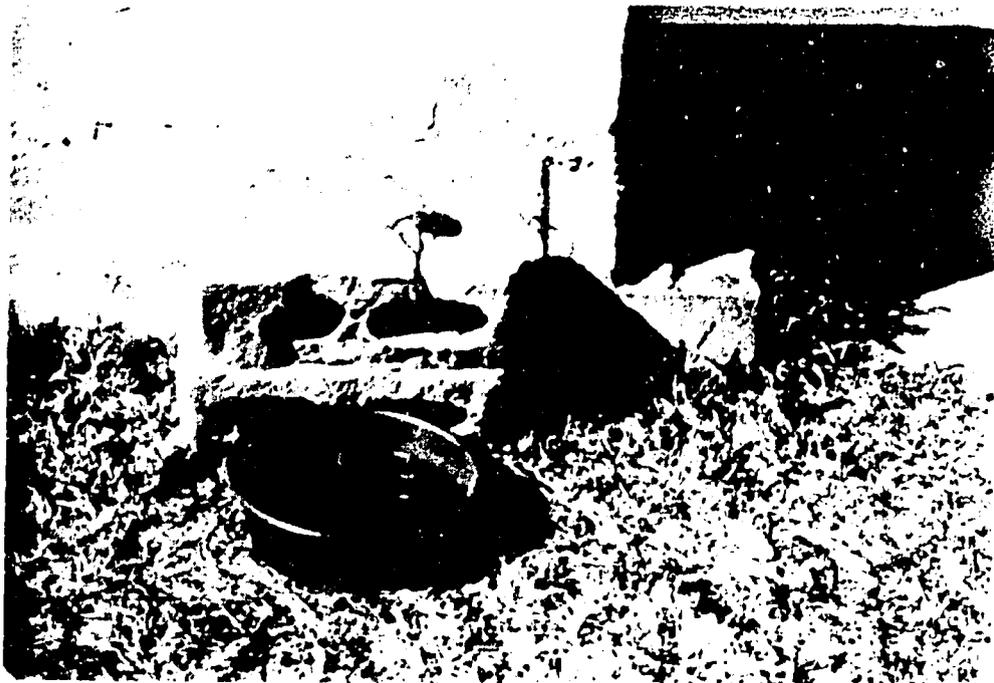




Rural Health Motivator Training, Nsingweni, July 1987

Photo 7. (above) Latrine

Photo 8. (below) Soap and Water at Latrine



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APPENDIX A

Persons Contacted

APPENDIX A
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Hilda Mdiuli, EPI Coordinator

MOH Headquarters

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Trusty Masuku, Training Officer

Institute of Health Sciences

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Patricia Dlamini, Health Inspector, Manzini
Thomas Nhlengethwa, Senior Health Inspector, Manzini
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N. Shezi, Staff Nurse

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Hope Msibi, Nursing Supervisor, Hhohho Region
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Pikile Gule, R.H.M. Trainer and Nursing Assistant, Mangweni

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Dr. Margaret Price, Clinic Management Advisor
Jeanne McDermott, Maternal/Child Health Advisor
Dr. Ned Wallace, Maternal/Child Health Advisor

CCCD

Peter Mathews, Administrative Assistant

W.H.O.

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Prof. Peter Pasan, WHO AIDS team
Dr. Harry Hall, Epidemiologist, WHO AIDS team

PROJECT HOPE

Dr. Bill Hawley

Agatha Lowe, Public Health Nursing Instructor, Nazarene Nursing
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OTHER

Dr. E. Huppert, Professor of Demography, retired, University of Swaziland

Yvonne Swartz, Baphalali Red Cross Society, Information Officer

Elizabeth Makhosazane Noge, Warden, Thokoza Church Centre

Beauty Makhubela, Nazarene Nurses College, Manzini

Rogers Ndlangamandla, Medical student

Philip Skosana, Public Relations Officer, Swaziland Broadcasting Service

Dr. Polly MacClain, Development Communications Project

Charity Tshabalala, Senior Reporter, Swazi Observer.

APPENDIX B

**Individuals Present at Ministry of Health
Debriefing, July 28, 1987**

APPENDIX B

INDIVIDUALS PRESENT AT MINISTRY OF HEALTH DEBRIEFING
JULY 28, 1987

Dr. Qhing-Qhing Dlamini	Medical Officer, Public Health
Matron Ntiwane	Public Health
Hilda Mdluli	EPI Coordinator
Lombuso Nxumalo	Health Education
Peter Matthews	CCCD Administrative Assistant
Trusty Masuku	Training Officer
Mrs. Abrahams	Deputy Chief Nursing Officer
Maggie Makhubu	Chief Nursing Officer
Bongani Magongo	Health Education
Dr. John Mbambo	Deputy Director, Health Services
Gillian Holmes	Health Planning
Dudu Dube	Health Inspector
Isabel Zwane	Institute of Health Sciences
Ngwebendze Hhlabatsi	Hhohho Regional Health Administrator
Spiwe Motha	Lubombo Regional Health Administrator
Lemma Menouta	World Health Organization (WHO)
Mark Sterling	UNICEF
Renate K. Perry	USAID/Swaziland
Mary Pat Selvaggio	USAID/Swaziland

APPENDIX C

Workshop Objectives

APPENDIX C: WORKSHOP OBJECTIVES

HOSPITAL NURSES' WORKSHOP ON PRIMARY HEALTH CARE

24TH FEBRUARY - 26TH FEBRUARY 1987

WORKSHOP OBJECTIVES:-

1. To provide technical guidance to health workers in information and education for health in the context of Primary Health Care.
2. To sensitize hospital nurses on new health developments and new strategies towards achieving the global goal of "Health for All by the Year 2000".
 - e.g. Down up approach in a decentralized system.
 - Community involvement and,
 - Multisectoral approach including traditional healers etc.
3. To promote the rational and co-ordinated use of the services and resources to the various socio-economic sectors in order to stimulate community involvement and develop information education for health programmes e.g. immunizations, and Health Education.
4. To update Hospital Nurses on new development in the health care system e.g. - Growth monitoring
- Post-Natal-Care and
- Management of Clinics

CHURCH LEADERS WORKSHOP ON PRIMARY HEALTH CARE

2ND - 4TH FEBRUARY 1987

WORKSHOP OBJECTIVES :

1. To provide information about the nature and components of Primary Health Care within the context of the health care delivery system in Swaziland.
2. To help spread the concept of PHC to all the categories of people in the country so as to improve the health status and to help decrease the incidence of disease in the country.
3. To discuss ways of alleviating the numbers and dangers of school dropouts and teenage pregnancies which includes sexually transmitted diseases.

MASS MEDIA PERSONNEL SEMINAR

OBJECTIVES

1. To provide mass media personnel with relevant information in Primary Health Care (PHC)
2. To sensitize mass media personnel in order to play an effective role in educating and informing communities.
 - community participation
 - community involvement
3. To promote Primary Health Care in the underserved communities.
4. To encourage a continuous dialogue with mass media personnel
 - provide them with relevant information
5. To encourage coordination between health personnel and the mass media personnel
 - the mass media staff is encouraged to concentrate on long-term health and development communication
6. To promote mass media involvement in planning health activities.
7. In turn mass media should play a special role in educating politicians and other decision makers about PHC.
 - provide information about rural health needs and health activities.

APPENDIX D

**Health Education Messages for
Primary Health Care Elements**

APPENDIX D
HEALTH EDUCATION MESSAGES
FOR PRIMARY HEALTH CARE ELEMENTS
(compiled at Health Education Centre)

1. HEALTH EDUCATION

2. NUTRITION

1. Mixed diet is sure way to better health.
2. Pregnant mothers need mixed diet-for you and your baby's health.
3. Breast milk is best.
4. Breastfeed for at least two years.
5. Breastfeed only (exclusively) for the first four months.
6. Start supplement between 4 and 6 months.
7. Bottle feeding can damage your baby's health.
8. Use cup and spoon for supplement.
9. Introduce child to new foods from home pot.
10. School children need mid-day meal.
11. Malnutrition can be prevented by eating mixed diet.
12. Food supplements are for malnourished people.

3. WATER AND SANITATION

1. Use safe water.
2. Build a latrine in a safe and convenient place.
3. Use a latrine.
4. Faeces carry disease (by flies, in water, soil, and food).
5. Cover faeces.
6. Dispose of rubbish like this (bin, bury, burn).

NOTE: The diarrhoeal diseases (PHC element No.7) and water and sanitation (PHC element No.3) have similar messages: safe water, and personal, home, and environmental hygiene. Cholera, schistosomiasis, and malaria (PHC element No.6) have overlapping messages as well. The extensive lists of health education messages presented here contain repetition, but are grouped with the PHC element for which educational materials were developed.

4. MCH ANTENATAL CARE

1. Attend antenatal clinic after missing first period or by two months, then every month until 6 months, every two weeks from 6 to 8 months, and every week in the last month, to check health, growing and position.
2. Take your antenatal card with you whenever you go to clinic or hospital.
3. Prevent neonatal tetanus by having two tetanus immunizations.
4. Pregnant mother needs mixed diet—for you and baby's health.
5. Eat enough food.
6. Take the medicine that you are given at the clinic.
7. Do not take any pills or medicines that have not been ordered by a nurse or doctor. Some can harm the baby especially in the first three months of pregnancy.
8. Keep yourself clean.
9. Get yourself rest.
10. Get enough exercise, but do not work too hard.
11. Common problems are constipation, morning sickness, tiredness, swelling, heartburn, varicose veins.
12. Serious problems are bleeding, very bad abdominal pain, baby's water starts to come, or continuous headache.
13. When you have strong and regular pains, or sticky fluid with a little blood, or water starts to come away, go to hospital to deliver, or contact your rural health motivator.

POSTNATAL CARE

1. Come back to clinic for check-up 4 weeks after delivery.
2. Breast feed your baby.
3. If you have problems with breastfeeding, do not change to bottlefeeding but contact your rural health motivator or nurse.
4. If baby is not born in hospital, bring the baby to clinic within first month for BCG.

CHILD SPACING

1. Plan your family. Think about the cost of feeding, clothing and education.
2. Use child-spacing methods. It is best to leave 2 to 3 years between each birth for your health and your child's health.
3. Father, work hand-in-hand with your wife.
4. Which is your goal - certificate or pregnancy?
5. Before you become a father or mother, be a man or woman.

GROWTH - MONITORING

1. Small children have small stomachs and need to eat good food often.
2. If your child is sick, feed him good food often.
3. Check your child's growth every month, by weighing him and having his weight recorded on his growth card.

5. IMMUNIZATIONS

1. Pregnant women should get two tetanus immunizations.
2. Traditional immunization will not protect your child from western diseases.
3. If you do not immunize your child, he can get crippled or die.
4. Visit clinic monthly for immunizations for first year.
5. Immunize and protect your child from tuberculosis, diphtheria, polio, tetanus, whooping cough and measles.
6. Get your child's immunizations only in health facilities because vaccines are delicate.
7. Sick children should be immunized too.
8. Carry your child's card whenever you visit clinic or hospital. Keep it safe.

6. ENDEMIC DISEASES

MALARIA

1. A bite from a mosquito can cause malaria.
2. Malaria kills.
3. Malaria can be prevented by burying tins, removing stagnant water in tins and dams, and burning grass around the home.
4. Go to clinic for treatment if you are having continuous headache, fever, sweating and chills.

SEXUALLY TRANSMITTED DISEASES

1. STDs can be prevented.
2. Avoid sexual contact with many partners.
3. Avoid sexual contact with strangers.
4. Use a condom during sexual intercourse.
5. If you think you have contacted STD, visit your clinic or nurse early for treatment.

BILHARZIA

1. Avoid polluted water.
2. Do not urinate or defecate in or near water.
3. To prevent bilharzia, avoid swimming or washing in polluted water.
4. Bilharzia can be treated - visit your clinic.

CHOLERA

1. Cholera is a killing disease.
2. To avoid cholera:
 - a) Boil water and milk
 - b) Use a latrine/toilet
 - c) Keep hands clean
 - d) Cook food properly
 - e) Cover food to prevent flies
 - f) Wash fruits and ~~the flies~~ vegetables
 - g) Help kill all the flies
3. Boiling can kill all cholera germs in water and food.

7. COMMON DISEASES

DIARRHOEA

1. Don't use bottle - breastfeed and use cup and spoon.
2. Boil drinking water if it comes from river or stream.
3. Build a toilet and use it. Keep it clean.
4. Wash your hands before you eat or after using the toilet.
5. Cover your food to protect it from flies.
6. Wash all utensils with water and soap, and keep them covered.

7. Homes should be kept clean. Dig and use a rubbish pit.
8. If a child has started having diarrhoea, give him salt-sugar-solution or oral rehydration packet.
9. Take a child to health facility or contact rural health motivator.
10. Continue breastfeeding your child - don't stop.
11. Give more of soft food.
12. Unclean food, water, utensils, and hands can cause diarrhoea.
13. Diarrhoea kills more babies in Swaziland than any other disease.
14. If your child gets diarrhoea, his body loses fluids, so it is important to give him fluids.

HEALTH EDUCATION IN THE DIARRHOEAL DISEASE CONTROL PROGRAM

1. People will obtain drinking water from a safe source or boil or disinfect unsafe water for drinking.
2. Each family will build a latrine, use it regularly and keep it clean.
3. People will keep their homes and surroundings clean and put rubbish in a pit.
4. People will wash their hands with soap and water before eating and after going to the toilet.
5. Dishes and utensils will be washed with soap and water.
6. Food and water will be stored in clean covered containers.
7. Mothers will breastfeed their babies or use a cup and spoon for supplementary feeding.
8. Mothers will mix ORS and feed it to babies with diarrhoea.
9. Mothers will take babies with diarrhoea to a clinic or hospital at the proper time for treatment.
10. People will seek information and assistance regarding health matters from clinic and health extension workers.

7. ACCIDENTS

BURNS

1. Keep matches out of reach.
2. Keep children safe from fire or boiling water.
3. If going somewhere, put out any fire.

POISON

4. Keep out of reach of children.
5. Do not use litre bottles but plastic bottles.

CUTS

6. Dig pit and bury tins, bottles, old metals, and nails.

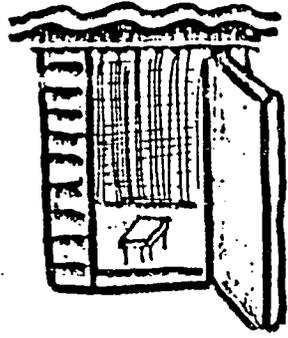
SNAKE BITE

7. Even if you treat at home first, take the person to the hospital.

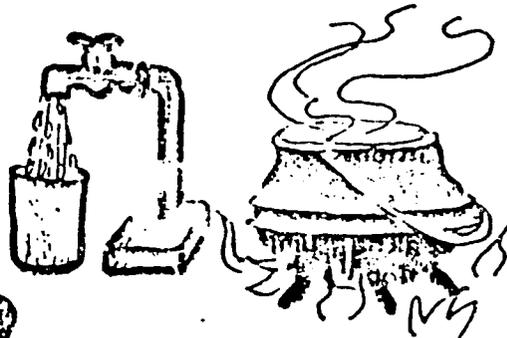
8. USE OF MEDICINES

1. Keep medicines where children cannot reach.
2. Do not use medicine which is not ordered for you.
3. Some medicines can harm the baby if the mother takes them during pregnancy - do not take any medicine not ordered by a nurse or doctor.

ILWE NAJUBA JEQE LONGUMSHEKO



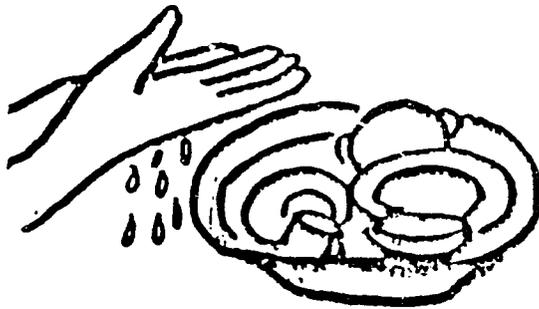
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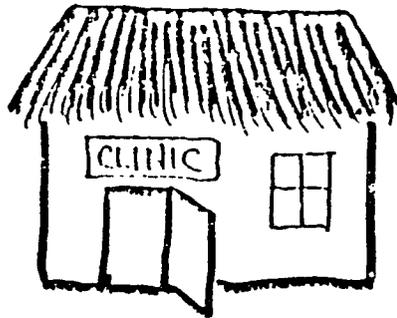
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BILISA EMANTI EKUNATSA



KUMUNYISA KUVIKELA UMSHEKO



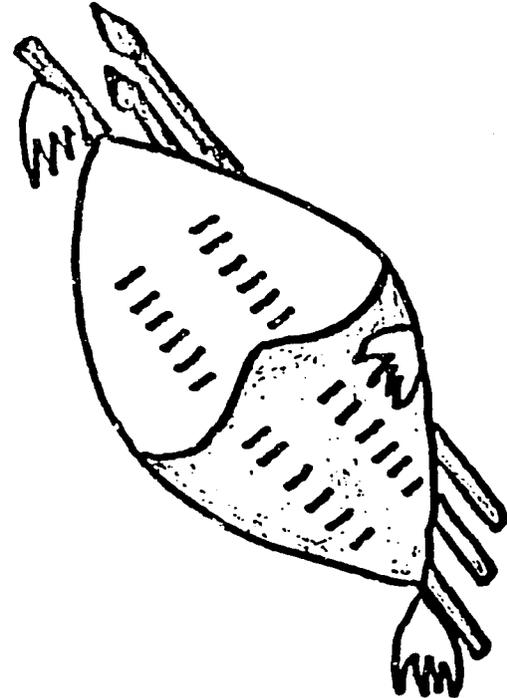
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KUTAKUSITA KUVIKELA UMSHEKO



MIKISA UMUTFWANA LOGULAKO
ESIBHEDELELA MASINYANE

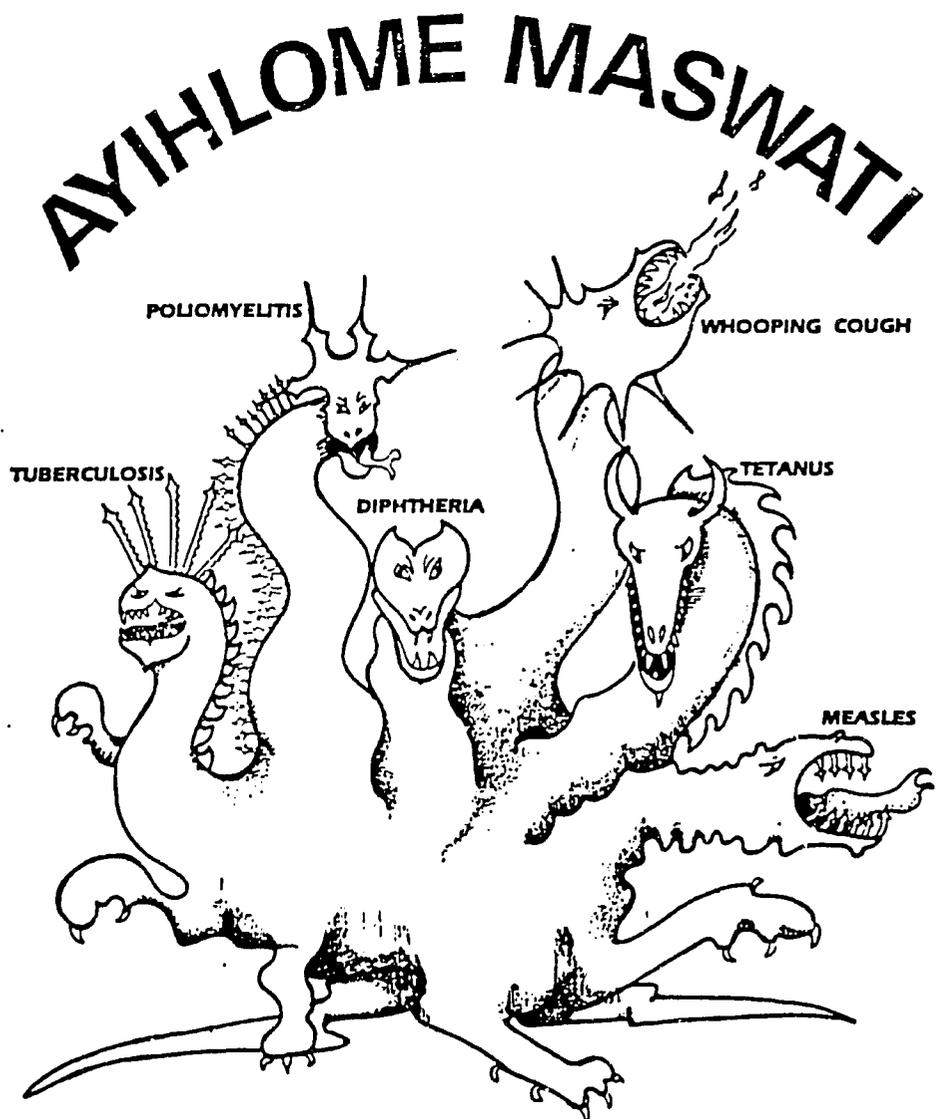
AYIHLOME BANTFWANA

SILWE NAJUBA JEQE LONGUMSHEKO
SINGAKAPHELI SIVE SASOMHLOLO



Ministry of Health
Health Education Unit
May 1983

Name: _____
Grade: _____ **School:** _____



**Use this Workbook with the Radio Programmes.
Do the exercises. Colour the pictures.
Learn to protect Swaziland from
the SIX KILLER DISEASES.
Share this workbook with your family.**

APPENDIX E

**Extracts from Previous Surveys/Studies
Related to Health Education KAP**

APPENDIX E

EXTRACTS FROM PREVIOUS SURVEYS/STUDIES
RELATED TO HEALTH EDUCATION KAP

KAP Survey of W&S in Swaziland (Green/HEU/MOH/RWBDCP. 1982)

83% working radio

1 traditional healer for every 12 rural homesteads

33% some water protection, incl. 17% who had standpipe or tap

84% never boil; 12% only recently due to cholera

70% less than 30 min. from water source

6.6 litres/person, 50-60/household; up with gardening, brewing,
plastering

70% no latrine; have or building - Highveld 39%, Lubombo 10%;
7% motivated by HA

21% only breastfeeding ("on what do you feed baby?")

32% only bottlefeeding

22% B&B

18.3 mean duration of breastfeeding

almost 94% boil water used to mix baby food ("what kind of water
is used to dilute or mix in with baby food?")

61% no response to "what causes the diarrhoea which kills babies?";
of those who answered, 69% gave W&S responses (i.e., bad
food/bad diet (29%), flies (19%), dirty baby dishes (15%), dirty
water (6%); 19% misc. included inhaling air from herbal medicines,
smoke in stomach,
withholding traditional protective meds, first teeth, powdered
milk, contact with foreigners, white people in airplanes

chiefs' perceived health problems:

1. lack of safe drinking water
2. lack of clinic
3. lack of transportation/access to clinic
4. cholera and DD
5. coughing and TB

heads of homestead's perceived health problems:

1. stomachache
2. colds, flu, sore throat, malaria
3. headache

4. dirty water or lack of water
5. lack of latrines

Evaluation of Water Supply - Ntsintsa (MOH/Red Cross, 2/83)

50 homesteads in highveld; water project piped gravity flow system from spring protected from animals by dense bush, completed 12/81; 15 households began collecting water 4-6/82; monthly interviews re DD in past 2 wks.; urine and stool samples from school children

34% latrines

by metering, mean per capita consumption 8.5-9.9 liters/day; by reporting 6.1-6.4 liters, similar to Green's 6.6

only 16 households access to water, creating new sense of relative deprivation of others; economic and nutritional benefits of gardening and construction result of increased water access; utilization of water for personal hygiene, sanitation, and food hygiene can be improved only with intensified health education over time; major benefits available to only a portion; system affords some protection from gross pollution but is subject to contamination; coverage less than anticipated so costs higher than anticipated (E1,030/homestead, E115/person served)

5% of children had urinary schisto, 75% had ascaris; 50% had more than one infection; not correlated with use of latrines or water system

DD no consistent differences between population using piped and other sources; not uncommon that many or all children in family had diarrhoea simultaneously and that children in other families were free of DD, suggesting that personal contact is an important mode of transmission and personal hygiene should be emphasized

highest health priority designated by virtually every respondent, including traditional healers, was to have a resident nurse and to have community centre become regular clinic

National Nutrition Survey (National Nutrition Council/CDC, 1983)

4698 rural and 772 poor periurban ages 3-60 mos., done at end of traditional hungry season after 2 poor agricultural years

appears that some of the data collected during the nutrition

survey, such as cause of death or percentage of mothers having supervised births, has never been analysed (UNICEF draft, p. 37)

5% rural and 8% periurban moms did not start breastfeeding; mean duration (i.e., 50%) breastfed to 16 mos.; by 3 mo-old, 70% have gotten non-human milk, 15% food other than milk (e.g., home or commercial cereal)

chronic malnutrition=stunting (low ht.-for-age, retardation of linear growth) in approx. 1/3; 42% of 18-23 mos.,

30% rurals, 23% urbans under-5

acute malnutrition=wasting (low wt.-for-ht.) less than 1% low wt.-for-age, either from stunting, wasting, or combination

10% of rurals, 8% urbans

stunting up with less education in homestead, less access to cash income, increased number of siblings and sibling deaths

own tap/stunting - 16% rural, 10% periurban; bush much higher than latrine

travel time to clinic less than 30 min. 20% stunting, over 30+%

DD - prevalence - 5% had on day of interview

16.4% rural and 14.5% urban previous 2 wks., almost 25% of under 6 mos., 32% of 6-11 mos., 27% 12-17, 24% 18-23 mos.

-stunting - at time of survey, stunted under-12 mos. less likely, older stunted more likely to have diarrhoea

Evaluation of the Environmental Consequences of the Luphohlo-Ezulwini Hydroelectric Scheme (SSRU for MOH, 1983)

215 homesteads in 2 zones; av. 9.9 people; 20% female head of homestead; 80% only one household/homestead

mobile clinic monthly; bus transport to 3 fixed facilities (Mbabane, Mhlambanyatsi, Bhunya)

water small springs and river, with few standpipes from protected springs; for **water source in preparation of infant's food**, 59% spring, 18% river, 14% protected spring, 1.7% tap or tank; 90+% boil baby's water

61% homesteads unprotected spring major water source, 12% tap or protected spring; 41% boiled for other than infant food

av. amt. water per homestead 102-128 litres in 2 zones, 11/person; 20-24 min. to fetch water, 2.4-2.7 times a day

85% pit latrine; 76% rubbish pit, 39% burn, 24% scatter

perceived health hazards approx 65% unhealthy water, 10% bilharzia, 17% mosquitoes/malaria

of under-5s, 31% suffered from diarrhea at time of death; 13 0-4s deceased of 385 total (=3.4%)

approx. 70% of mothers with infants attended clinic at least once a month; 4% only when child ill

Traditional Leadership, Community Participation, and Development Education - Two Surveys (Green, USAID, 1984)

main health problems as identified by chiefs:

lack of safe drinking water	76%
lack of clinic	51
transport/access to clinic	36
chclera, DD	23
coughing, TB	19
need extension workers	17
need doctor/nurse	13

includes traditional healer workshop follow-up, recommendations for women's group training activities

Mass Media and Health Practices/Communication for Diarrheal Disease Control: Swaziland Program Evaluation 1984-85

The campaign focused on a small number of objectives; for this summary the most interesting were acceptance of the use of home-mixed sugar-salt solution as a treatment for diarrheal disease; maintaining feeding during episodes of diarrheal disease, and giving special feedings afterwards...This was a short campaign: six months from the initiation of technical assistance to the first campaign broadcast, and then seven months of information diffusion activity...nearly 85% of all homesteads were substantially exposed to at least one of the campaign's **channels**:

- 62% reported regular listening to at least two of **radio** program series;
- 22% reported **clinic** visits which involved treatment of children's diarrheal episodes with ORS;
- 16% reported contact with **health extension workers** about DD treatment;
- 60% of mothers recognized **flyer**, 20% still owned (incl. 50% of those who had contact with extension worker);
- workshop **training** increased likelihood of interaction with clinic

staff or yellow flag volunteers, which in turn increased likelihood of correct practice;
-reported home use of ORT went from 36% to 48%;
-clinic records of pre-visit ORT went from 43% to 60%;
-purges as "good" for children's diarrhea went from 32% to 14%;
-not using imbitas for children's diarrhea went from 46% to 63%

Development of Appropriate Methods for Sustaining Rural Health Motivators: An Operations Research Approach (SSRU/Connolly/Dunn,Vilakati/PRICOR/USAID, 1986)

study to identify most appropriate ways of sustaining RHM's that would be dependable and promote community involvement in PHC program after demoralizing effect of not receiving monthly govmt stipend for up to six mos.

RHM works 10 days/month or 2 1/2 days/wk.; 30-40 homesteads to be visited once a month, so 3-4/day; can be long distance between; E20/month, not wage

field test conducted 9-10/84; in 4 wks prior, 50% had sought health care - 10% TH (5% child, 13.5% adult), rest govmt (65%) or mission (19%) or private (5%); in 4 wks., adults spent E3.91 and children E1.99 on health care

time travelled to clinic: 25% 30 min. or less, 31% 31-60 min., 25% 61-120 min., 19% over 2 hrs.; waiting time - 68% 1/2 hr. or less, 10% hr. or more

most recent RHM visit - 37% within month, 16% 2-3 mos., 15% over 4 mos., 32% never

RHM activities survey of homesteads advised on cleaning/sweeping yard(93%), digging toilets(93%), burying rubbish or pits(88%), treating/protecting water (64%), personal hygiene (42%); RHM¹ likely to be only source of messages on homestead cleanliness and latrine construction

RHM primary source of info on ORT; mothers complied well when RHM referred for immztn

pilot study done in community where health committee, single chieftancy, local clinic nurse and district supervisor willing to cooperate. Conducting a field test under such optimum conditions means that if successful the results cannot be generalized to the entire country. However if it fails in this specially selected area, it is unlikely to succeed anywhere.

done in Ntondozi, 354 homesteads of which 64 were interviewed, 20 min. by bus from Luyengo, project 6 mos. in 1985

study to reinforce selected PHC skills (ORT, immztn referral), introduce growth monitoring, develop community based support scheme

results compared to prelim MMHP; PRICOR group found increased RHM contact, more ORT discussion and more accurate mixing, more SSS kits; 65% had growth chart, of whom 70% had been weighed at home, 40% had two or more wts. plotted; prior to course, RHMs reported often being asked by mothers about graph but had no idea of its use, often assigned to weighing in clinic but did not understand purpose

Weaning Practice Survey (National Nutrition Council/UNICEF/USAID, 1987)

Infant and Young Child Mortality (UNICEF/Swaziland, 1987)

quoting "Hermans paper": small, compact nation whose communications, employment, nutrition and health services compare favourably with many African countries

during 1st 2 mos., 50% of total infant deaths; approx. 25% in 1st mo. expected due to genetic or birth complications; only 20% in 2nd 6 mos. (data based on 83 natl nutri); 2/3 of all under-5 deaths occurred before 6 mos, only 6% of total in 2-4 yr.-olds; after 1st mo., increasing proportions of deaths associated with "exogenous" causes, factors related to environment in which infant lives, indicate considerable risk to survival from poor health and inadequate nutrition

from 85 hosp stats - at least one third of infant deaths occur as a result of the diarrhoea-malnutrition complex...in young infants is usually a result of giving babies foods other than breastmilk at too early an age. If mothers were to feed their infants exclusively on breastmilk for the first four months of life, this figure might well be halved.

only data on cause of death from hospital reports which cover about 5% of under-5 deaths, may not be representative; 30% from low birthwt and perinatal conditions, neonatal tetanus and congenital syphilis also important; 10,000 infant deaths 1983-85, 15,750 1-4 calculated of which only 2% accounted for in hosp. stats - although there are only nine hospitals in the country, it does not

appear that lack of access is the main factor behind these apparently low rates of hosp utilisation. (similar figures for lack of use of ANC which could prevent half of stillbirths - a large portion of the explanation for the high rates is community resistance to institutional care and/or ignorance of its benefits.)

quoted from MOH Policy on W&S, 1983: Regional variations in child mortality (Hhohho lowest, Lubombo highest, 135-171) no doubt reflect unequal socio-economic development and different climatic conditions, both found to effect morbidity patterns: "...rates of infections and parasitic diseases increase from the High to the Lowveld, reflecting the increasingly dispersed character of settlement patterns and increasingly poor access to protected water supplies and sanitation, poor hygiene, and poor quality of available water, as well as poorer understanding of these factors and related conditions."

marked decline in child mortality for children whose mothers had upper primary or more education; with 2ndry ed, risk of under-2 death 40% lower than with no ed

1976 census found rel between source of **water and child mortality**. The probability of a child dying in a home with a tap was about 30% less than in a home which obtained its water from other sources. This association points to, but does not prove, the importance of water in child care since families with tap water are likely to be better off and have greater access to a range of facilities that help to reduce child mortality...borne out by a case study carried out in 1979 in southeast Swaziland (lowveld) which found chances of child survival to be related to the development of infrastructure, especially to the provision of potable water.

in 1985, av. month 40% of estimated pop. under-1 brought for weighing, 25% 1-2 yrs. weighed each month, 13% 2-5s (calculated from attenders/month, est. pop.)

underwt.=below line on growth chart (3rd centile girls, NCHS):

	83	84	85 clinic reports	attend/mo. up
0-11 mos.	3.4	4.4	4.5	+59%
12-23	5.2	6.3	8.2	+81%
24-59	5.0	5.5	7.1	+46%

increased attendances may be due to immztn emphasis; increase in proportion underwt. may be due to change in availability of food handouts, improved training on growth monitoring, change in chart design and reporting system, and more effort to encourage attendance

1982 small study at RFM Hosp showed 58% of malnourished children bottlefed, only 18% of non-malnourished

under-5 DD visits peak Oct.-Jan, May-June 85-86 (MMHP?);
accounted for 3rd OPD reason of all ages in 85, after URI, skin
ARI peaks in 85 July-Sept. (cold) double Jan.-Feb. (warm)

1985 nutri surveillance data indicates peak underwt in April,
no increase during "traditional hungry season" June-Nov.

most mothers give non-human milk starting around 6
wks...because they have no confidence in ability to exclusively
breastfeed for first 4-6 mos., due to inadequate support and
encouragement for exclusive breastfeeding, considerable pressure
from modern commercial sector to purchase breastmilk substitutes,
and easy availability and relatively low price of imported
substitutes from SA

Primary Health Care Review (MOH/WHO, 1987)

national, regional, health centre, community level; for each of 11
PHC components at each level - immztn, DDC, nut, MCH/FP,
W&S, essential drug supply, HE, endemic disease control,
manpower, facilities, ARIs - reviewing objectives, strategies,
targets, target dates, indicators, main achievements, problems,
solutions envisaged; looking at info system, job descriptions and
spvsn/mngment

Demographic and Health Survey (Institute for Resource Development/MOH/Central Statistical Office/USAID, 1988)

planned for 1988, data collection April-June, 150 EAs, 20 homesteads
each, with overall sample of 3500 women aged 15-49; estimated five
teams of four interviewers each to finish 3-4 mos.; final report est.
publication June '89

questionnaire may investigate reasons for non-utilization of health
services and dissemination of health messages to meet needs of
MOH; basic questionnaire covers respondent's background (residence,
age, education, radio, water and toilet, possessions, religion,
association memberships), reproduction, contraception, health and
breastfeeding (incl. ANC, immztn, DD, fever, RI), marriage, fertility
preferences, husband's background and woman's work, heights and
weights, and community information

APPENDIX F

Suggested Questions for HEC/PHC KAP Survey

APPENDIX F

SUGGESTED QUESTIONS FOR HEC/PHC KAP SURVEY

The following questions are based on the health education messages identified for use in evaluating effectiveness of HEC efforts in PHC. Many are selected to allow for some comparability/compatibility with previous survey results where possible; these are identified as G (Green/HEU KAP, 1982), M (Mass Media and Health Practices Evaluation, 1985), NN (National Nutrition, 1983), RHM (RHM operations research study, 1986), RHM "m-s" (RHM "mini-surveillance", 1983-4, results not available during this consultancy), FLAS (FLAS surveys, 1985-87), and RWSB (Rural Water Supply Board homestead survey). Where wording varies slightly from that of the previous survey, parentheses are used to indicate the survey.

The list is neither complete nor exhaustive, but provides a starting point in development of the survey instrument. Additional work is being done, planned or is needed as indicated under each category. For example, the KAP steering committee is working with those involved in the previous EPI survey to determine what questions are appropriate to repeat in this survey. A major demographic and health status (DHS) survey is planned for 1988 which will cover reproductive health practices and some other health issues.

GENERAL (Need standard identifying characteristics in addition)

Number of residents in homestead

Highest education of any member of homestead-G, RWSB

Respondent's education-G

Bed/stove/working sewing machine/maize milling machine/vehicle-M

Working radio-G,M

Day of week/time of day usually on

What listened to

Do you listen to "Home", women's, ayihlome programmes-M

Have you ever seen television? Where?

Does anyone in household buy/read a newspaper? How often? Which one?

HEALTH EDUCATION

Does your community have any projects now/in past 2 years? RWSB

What kind/achievement?

Did you participate? How?

Any member of homestead a member of an inkhundla committee (G)

Is there a zenzele committee in this area-M,RWSB

Respondent (other household member) a member-M

Where do you get advice about taking care of your child?

Whom do you ask when you have questions about your child's health?

Where do you get information about your own health?

When did you last seek health care/treatment for yourself/child? (RHM)

Where? For what reason/problem?

Are there RHMs in this area-M

Last visit of RHM-G,RHM

Any other health extension worker visit to talk about health-M

What did they talk about-M

Have you ever seen the yellow or pink flags

What does yellow flag mean-M

Pink flag meaning?

Are there any traditional healers in this area-G,M

What are major health problems in homestead-G(RWSB)

in this area? G

What causes these?

NUTRITION

(Weaning practices survey currently in progress by National Nutrition Council with UNICEF/USAID support.)

What did family members eat yesterday-NN

What did child eat yesterday-NN

What foods do you avoid when pregnant? Why?

What foods do you eat especially or only when pregnant?

Are you breastfeeding now?

At what age stopped breastfeeding last baby-G

or

How long did you breastfeed your last baby?

Why did you stop?

At what age did your child get something besides breast milk? What was it? Why did you give it? (If "water" or "water and sugar", what did you add next? When? Why

Do you buy or prepare special foods for the baby? What? Why?

Do your children who are in school eat anything while away from home for school? What?

Is baby in homestead breastfed-G

What/what else is fed to baby (G,NN)

Does baby receive any formula or milk other than breast milk-NN

What is used to feed baby (G)
If bottle used, how is it cleaned-G
If water is used to fix baby's feed, is anything done to water? (G)

WATER AND SANITATION

What kind of water do you think is healthiest-G
What kind of water do you think is unhealthiest-G
Where do you usually get water for drinking-M
Is this water protected from disease-M
Where do you get water for cooking, bathing, washing clothes-RWSB (M)
Time to reach water source-G(RWSB)
Does it vary with season
Number of trips per day-G
Who fetches
How much water used by household yesterday-G
Size of containers used to fetch/store-G, RWSB
How cleaned-G
Containers covered?-G
How water removed from container-RWSB(G)
Do you do anything to improve water collected for drinking-M
What?-M
Has water been boiled for cooking, mixing with food or drinking in
past 24 hours-NN
Where wastewater put-G
Where/how rubbish disposed

Does homestead have a latrine-M, RWSB (G)
Who/what motivated to build-G,M
What material for floor-M
How long had-G
Any problems/satisfied with-G
Who uses - ages, sex-G
Does anyone under 3 yrs. use-M
For children who don't use latrine, what is done with their feces (G,M)
If homestead does not have latrine, why not-G

Some people say using a latrine protects the family from sickness. Others
say a latrine does not protect from sickness. What do you say? -M
If protects, what is the main sickness it protects from-M
How frequently do you wash whole body-G
-Children's whole bodies
Do you wash hands before preparing food?-G
-before eating?-G
-after going to latrine/defecating-G
Do you cover water for drinking?
-food before using-G

MATERNAL-CHILD HEALTH

Caretaker - person with whom child spends most time
- ever left in siblings' care, age of youngest caretaker
Who makes food and health care decisions about child?

What health care provider have members of this homestead used
in past 3 months/reason/treatment received

Time of travel to get to nearest clinic (walking, bus, other)-M, NN, RWSB
Before your last live birth, did you see a nurse or doctor for a check-up-
NN

Where did your last delivery take place-NN
Who assisted you with your last delivery-NN
Are you pregnant now-NN

If pregnant, when do you go to clinic?
-Have you had tetanus immunization? How many? When?
How frequently do you take your child to clinic?

Last reported clinic visit for ANC and CWC
Verified by card?
Last charted weight on child's card (months ago)

Has any child born alive died?NN
or Any child deaths to this mother
Sex of dead child
Age at time of death (completed months/years)-NN
What was major cause of death-NN
During the illness before death, did child have diarrhoea-NN
-rash with fever-NN
Details of death (ubulawe yini)-RHM "m-s"

Family Planning

(Extensive demographic and health status survey planned for 1988.)

What do you think is the best length of time to leave between births for
the health of the mother and the baby?
How much time was left between the births of your last two children?

What methods do you know about for family planning?-FLAS
Which method is most effective?(FLAS)
Which methods do you oppose/not agree with/not like? Why?(FLAS)
Have you used any method of family planning? Which one/s?(FLAS)

IMMUNIZATIONS

(KAP steering committee consulting with EPI coordinator and previous
survey staff.)

ENDEMIC DISEASES: SEXUALLY TRANSMITTED DISEASES

Do you know of any sexually transmitted diseases? Which ones?-FLAS
Can these be prevented? If so, how?

COMMON DISEASES: DIARRHOEA

Any under-5 with diarrhoea now-M,NN

-in past two weeks-M,NN

What did you do to help child-M

If no child with diarrhoea, what would you do to take care of a child
under five yrs. who had diarrhoea-M

Would you do anything at home-M

Have you ever heard of salt-sugar solution-M

Have you ever made salt-sugar solution-M

Does a child need any special foods during the time of having diarrhoea-M
If yes, what foods-M

Just after having diarrhoea, does a child need to be fed differently than
normal or the same as normal-M

What should you feed the child after an episode of diarrhoea-M

What causes diarrhoea in children

What causes the diarrhoea which kills babies-G

What kills the child when he has diarrhoea-M

USE OF MEDICINES

What medicines do you now have in your house?

Where do you keep them?

Where did you get them? Who uses/for what?

When did you last take medicine? Why?

When did you last give medicine to your child? What for?

Do you know of/use herbs for treating illness? Which ones?

Have you ever used herbal teas (imbita) as treatment? For what?(M)

Have you ever used purges for your child? For what?(M)