A STUDY OF DISSEMINATION OF HEALTH EDUCATION

TO

NAMANGA RURAL COMMUNITY

THROUGH

NAMANGA SECONDARY SCHOOL STUDENTS

BY

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U.S. INTERNATIONAL UNIVERSITY

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A THESIS

Submitted in partial fulfilment of the requirement for the degree of Master of Science in the field of Management and Organisational Development.

UNIVERSITY - (AFRICA)

JUNE 1987
This project by Dr. Syed Mohammed Iqbal Majeed is accepted in its present form.

Date: June 1987

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Lecturer in Research Planning and Administration.

[Signature]

Director U.S.I.U. Nairobi Campus
Dr. Lillian Beam
DEDICATED
TO MY BHAIYA
SYED TAHSEEN HUSSAIN

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ACKNOWLEDGEMENT

I wish to acknowledge my indebtedness and to express my sincere gratitude to Mr. Philip M. Omoni who has given me encouragement, understanding, moral support and assistance to prepare this thesis at the American International University.

DR. SYED MOHAMMED IQBAL MAJEED
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<td>38</td>
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ABSTRACT

Health knowledge (in the areas of personal hygiene, basic nutrition, environmental hygiene and communicable disease) was assessed in 80 students of Namanga Secondary School and their parents in Namanga rural area.

The purpose for this study was to investigate what role schools play in the dissemination of health knowledge to a rural community.

It is attempted to understand the relationship between modified health teaching methods and the levels of health knowledge of the house-hold heads, and also the relationship between the level of education of the school student and the level of health knowledge of the house-hold head.

Namanga Secondary School, Namanga, (Kajiado District) was selected as the experimental area.

Pre-test data was collected from all the students studying in that School and their house-hold heads.

Health knowledge in various aspects were tested in the form of questionnaires and then a programmed health education was given to them (covering personal and environmental hygiene, diseases, nutrition values in their food, habits, etc).

After a period of three months post-test data was collected from the School student and their house-hold heads. It is important to mention that between the pretest and post-test periods there was 45 percent change in the health knowledge levels of the house-hold heads.
No relationship was found between the sex of the child and the health knowledge levels of the household heads.

However, there was a relationship between the level of education of the student and the health knowledge level of the household heads.

The advantages and weakness of the improved health teaching methods concluded in this study can be used as guideline in the planning and implementation of community health education programmes especially for rural communities.
Chapter 1

INTRODUCTION

In a developing country such as Kenya, it is necessary to give health knowledge to students for prevention of diseases. Personal health and hygiene is the responsibility of each individual and to keep himself physically and mentally fit, so that he can make the greatest contribution to the community in solving health problems in which he lives. Many of the diseases that the majority of Kenyans contact can be prevented if people know how to live a better and healthier life. Approximately 80 percent of the health problems are preventable if individual families and communities are informed and educated on essential health topics such as hygiene and sanitation.

The most important disease preventive measure in the rural areas is health education particularly the one directed towards improving environmental sanitation and modifying personal habits. Health education aims at modifying people's attitudes and behaviour so as to achieve the improvement, maintenance and restoration of health. It also aims at making people acquire and maintain healthy life styles and make good use of the health services to which they have access, and take over responsibilities for their own health and their environment.

Health education must be approached from the point of view of the social, psychological, cultural, economical, political and the organisational structure of life activities of a particular society, because it consists of more than mere imparting of information.
1.1 Description of Study Area

The study area (Namanga) is located in the Kajiado District of Kenya, 146 kilometres south of Nairobi.

Figure 1.1 Kajiado District. (Kenya)
Table 1: Population by Sex and Area

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>Number of House-hold heads</th>
<th>Square kilometre</th>
<th>Density</th>
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</thead>
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<tr>
<td>Namanga</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>* T.C.</td>
<td>1041</td>
<td>976</td>
<td>2017</td>
<td>486</td>
<td>2</td>
<td>840</td>
</tr>
<tr>
<td>Namanga</td>
<td>4467</td>
<td>4612</td>
<td>9079</td>
<td>1773</td>
<td>1261</td>
<td>7</td>
</tr>
</tbody>
</table>

Source:
Central Bureau of Statistics
Census 1979.

17 percent of the total population is composed of children below the age of 6 years, whereas 48 percent of the total population composed of population below the age of 16 years. The local language spoken is Maasai. 13.8 percent of the population people are illiterate and 58.8 percent of the population consists of those completed primary education. (Rural Development - 1982 Kenya).

Livestock production is the major economic activity in the study area. The ethnic group in the study area is predominantly Maasai, the majority of whom are christian by religion.

* T.C. Stands for Town Council
1.2 Background of the Problem

Lack of or insufficient health knowledge of the people actually help the spread of diseases. For instance fly-borne diseases spread, where the people do not allow the control of faeces, and Enteric illnesses are present when standards of hygiene are low. Tape-worm, hook-worm and similar conditions can only be eradicated with the help of the people. The affected people may feel the need to live a healthier disease free life, but they may not know how to meet this need. On the other hand, they may not be aware that any health problem exists in their community.

Health education tries to enlighten people on health matters, change their attitudes towards bad health habits and introduce relevant knowledge about disease. Thus we can see that both in the developing and in the advanced countries the prevention of disease and the promotion of good health depends on the health knowledge of the people.

The environment in which the child lives, his personal health habits, the food he eats and the state of his body and mind will not only affect the personality of the child as he grows, it may affect his ability to absorb the learning offered to him. It is obvious then, the physical and mental health of the child and his education are very closely linked that without good health the impact of education made on him will be reduced.

Health education is very important in rural areas because the distance most people travel to reach a health centre or dispensary are greater than in the towns and a smaller portion of the population attend such facilities. Many make no use of the health services and depend entirely on the Mganga. Yet the sickness load in rural areas is heavier—that is more people are sick.

* Mganga is a Swahili word for traditional medicine man.
The sickness load in rural areas amongst the population of working age can also be a severe burden. At the rainy season when hoeing and planting must be done malaria, respiratory diseases and other sicknesses are at their peak. Agricultural production is interfered with and crop yields are poor.

Health education in rural areas has a heavier and more serious task like of cases in the cities, but they also have advantages,

1. Rural people in order to live, have learnt to be more self-reliant depending on their own skills and efforts. They fear sickness and want to learn how they can become well again.

2. Rural people know one another better, talk more to one another and can more easily work together in their communities. They can - when there is trust - teach one another.

The achievement of rural people working together to build schools and clinics, to improve roads, provide piped water, protect streams and build houses are well known. This spirit of co-operation and this energy can - through health education - promote rapid rural health improvement.

Health education in the schools is very unsatisfactory. Related subjects like hygiene and health sciences have been criticized as not being sound science and have not made headway, Human Biology has been neglected in the schools; some possible reasons for this are :

1. The schools aim at academic achievement and preparation for employment whereas health education is related to preparation for living and for citizenship.

2. School health services have been seen as clinical services with no educational responsibility. Preparation for teaching includes physical fitness courses but very limited preparation for the teacher's responsibilities for students health.
3. The biological sciences have had a lower prestige value than chemistry and physics.

4. The schools have been given such a heavy load to carry in playing their part in social and economic development that any additional subject has to fight hard to find a place in the curriculum.

5. School systems have been build on European models. The good progress made in school health education in America and elsewhere has had little influence so far.

1.3 Statement of the Problem

Health education is intended for the whole community, this does not seem to be the case.

The children who are learning about health education have not been effective communicators of the knowledge gained to the parent.

This is the major assumption behind the strong emphasis put on health education in schools.

School students inspite of learning about health up-keep suffer from malaria, diarrhoeal diseases, scabies, ring worm infection, tetanus, tuberculosis and various degrees of malnutrition. These health problems are mainly due to lack of or insufficient knowledge on personal hygiene, nutrition and environmental sanitation.

A number of questions are raised in an attempt to explain why health education has not been as successful as one would want it to be, and what would happen to the programme "Health for all by the year 2000"

1. Are school students the right agents for dissemination of the relevant knowledge to the community.

2. Do the methods used in teaching about health in the schools yield optimal results?
3. What actually happens between the child and the family key persons in terms of the way that health information is passed on.

4. What is the reaction of the family key person to it?

In an attempt to answer these questions this study will investigate the relationship between:

1. The level of education of the child and:
   The level of health knowledge or education of the house-hold head.

2. Modified teaching methods (Health education) and:
   The level of health knowledge of the child.

1.4 Scope and Purpose of the Study

The state of knowledge in this general area is poor. Four main reasons make a study of this nature an urgent need.

These are:

1. Very little research has been done in this area. The findings of this study provide some insight into the role of schools in the dissemination of health education,

2. The study provides knowledge of the communication patterns between children and their parents and especially the family key persons. Such knowledge is not only valuable in devising methods for health education, but adds to the sociological knowledge of interaction patterns between children and family key persons in modern rural families,

3. It is important for the Ministries of Health and Education to know whether they are working with the appropriate target group for health education for rural communities,
4. The results of this study provide useful background information to the future researcher in public health education in rural areas.

1.5 Hypothesis

1. There is a relationship between the sex of the child and the level of health knowledge of the house-hold head.

2. There is a relationship between the level of education of the child and the level of health knowledge of the house-hold head.

3. Use of modified teaching methods affects the level of health knowledge of the children and house-hold heads.

Diagramatic representation of hypothesis

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variables</th>
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<tbody>
<tr>
<td>Sex of the child</td>
<td>Level of health knowledge of house-hold.</td>
</tr>
<tr>
<td>Level of education of the child</td>
<td>Level of health knowledge of child.</td>
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<tr>
<td>Modified teaching methods</td>
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Chapter 2

LITERATURE REVIEW

2.1 The Need for Health Education in Kenya

The need for health education has been established and accepted as a major responsibility of the Government. The health education unit of the Ministry of Health was set up to cater for this need. In the past their efforts have been concentrated on training District Health Education Officers and the production of visual aids for general audience.

Recently the health education unit has identified schools as one of the most important targets for health education. In order to use this effectively, the unit decided to carry out a national survey in July 1979 to find out among other things the attitudes of teachers and students from 350 schools in 9 districts of 4 provinces of Kenya were interviewed. The majority of the interviewees were of the opinion that health education was very important to them, and should be taken more seriously by both Government and the community at large. The majority of the community members expressed a wish to be educated in health matters and especially in diseases that are endemic in the area.

Another survey was carried out among school teachers and local community leaders, by the African Medical Research Foundation staff in Kai-sub-location Makindu Kibwezi Division, Machakos District. A workshop was organized in schools. It was found that lack of health knowledge by the teachers was a great drawback to diseases control efforts through Health Education. Consequently, the teachers
requested for more seminars especially during the school holidays so that they could gain more knowledge on public health. It was also felt that participation at the seminars by parents and Government extensions workers not only ensured that all sectors of the community are made aware of the same health material, if possible at the same time, but also created a strong mutual relationship between the parties involved. It was thus concluded that schools can help to fight diseases by helping students to understand how disease is spread, and working with parents, so that families also try to prevent the spread of disease. This was proposed to be achieved by initiating programmes within schools, within families and within community (African Medical Research Foundation 1980 Annex 9).

These surveys indicate that rural communities express the need to be more enlightened on health matters. The studies also show that co-ordination of the health knowledge between the parents, children and community at large is deemed as necessary in order to provide for similar experiences to the community members.

2.2. African Medical Research Foundation

The health behaviour and Education Department (HBED) of AMREF is carrying out research extensively in various parts of Kenya in the knowledge attitudes and practices regarding health and disease, and then using the information to formulate approximate health education methods.

The biggest contribution that they have made in this area is a psycho-social method of teaching health, which is adopted from a method of self-teaching through self discovery, and which was originally advised by Paolo Freire. Its main aim is to assist
participants and the community to recognise their problem and make their own decision about these problems. This method seems to be the best way to reach and educate people where there are, especially the illiterates of "remote areas"

The method has been used widely at the seminars and workshops that AMREF has held for various rural health workers.

This method is successful because the participants of the workshops and seminars become motivated enough, to identify their area/health problems, and to offer suggestions as to how they can best be solved.

AMREF also used Voice of Kenya radio as a method of disseminating health knowledge to the Nation (Doctor AMREF series).

The methods of delivery health education described so far lack in evidence that shows how effective they have been. Research done in various parts of the world on community involvement in preventive health education shows that health education programmes can be successful.

2.3 Research Done Elsewhere

Puska et al (1972 - 1977) carried out a comprehensive community programme for cardio-vascular disease control in Finland which has high cardio-vascular disease rate. The project was designed to educate the feasibility and effects of a community based intervention between 1972 - 1977. To assess the project effects cross-sectional population samples were studied in North Karelia and a reference area, at the beginning and end of the five years period (Puska et al 1981:3).
The major elements of the health education were through newspapers, articles, radio programmes, mass distribution of a variety of leaflets and posters and health education meeting. Other programme features are persuasion, training of practical skills, environmental modification and community organization.

OBSERVED RESULTS

In 1972, total health knowledge level was lower in North Karelia than in the reference area, but during the programme the knowledge in North Karelia increased more than in the reference area, so that the difference had disappeared in 1977.

The observed net change in the total health knowledge level of the two areas was 4 percent for men and 2 percent for women; and reductions in coronary heart disease risk were 17 percent among the male, and 12 percent among the female middle aged population.

The project was associated with clear and significant not changes in risk factors and health behaviour.


The Belgian heart disease prevention project reported similar findings to the North Karelia project.
(Kornitzer et al; 1980:18)

Health education is seemingly shifting from authoritarian health education to supportive health education, and one of its concept is that of participation of the individuals in health care as a competent factor in a community setting, rather than by passive compliance. (Kickbusch, 1981:5).
The Idere Guinea worm control project in Western Nigeria reports a unique experience whereby both the authoritarian and supportive health education approaches have been used, as control measures in an area where Guinea worm disease is rampant.

The first control measures that were undertaken involved:

(a) Installation of modern pipe borne water system.
(b) Construction of sanitary well.
(c) Giving of health information and on-spot treatment by teams of health workers and medical students.

A programme which emphasized citizen participation self-help and careful attention to the social and behavioural aspects of the problem, was designed and implemented. The control and experimental areas chosen, were 20 kilometres apart.

The Idere community expressed the Guinea worm problem as a felt need and they were willing to solve it on a self-help basis. The village elders identified caretakers who were then given basic training in primary health care by some medical students. The caretakers provided preventive, simple curative and referral health services, personal health knowledge and skills to individuals. They also stimulated and gave guidance for community development for the whole village.

Evaluation was done after a period of one year. Prior to intervention, 3.8% of the 160 heads of households in the experimental village knew a correct measure for preventing Guinea worm. Ineffective measures were mentioned by 26.8% while 69.4% did nothing. After intervention, 75% named affective measures. None of the 140 interviewers in the control villages mentioned a correct preventive
measure either at the first or second questioning. Village visits showed observable changes in behaviour. No change in behaviour was observable in the control villages. Four sanitary wells were constructed by the villagers, and plans to construct more were under way. The control village people had no similar project in mind.

The prevalence rate of Guinea worm dropped from 34% to 5% in villages with wells, less than 10% in villages avoided contact water sources. In addition to this, villagers believe that they were in better health since the launching of the programme. (Akpovi et al 1981:234)

Studies show that at community level, health education can succeed if the community itself is involved fully in the selection of priority areas for health education in the planning and implementation of programmes.

Another approach that is used for the dissemination of health education to the community is through schools.

2.4 School Health Education

School are systems that are needed by the community to fulfil the role by providing formal education to children.

Health education is one of those formal subjects that are taught in school, with the expectation that it will permeate the entire community. In view of this expectation, it is appropriate at this point to look at the methodology used by schools, to disseminate health education to school students in Kenya,
The practice of using the formal educational system of Kenya, whereby school children are given general principles in health with more theory than practice, and the materials and methods used are appropriate in the sense that the language used, books and general content of health education are foreign to the child and the teaching time allocated to health education is too short.

This approach of imparting health knowledge to school children is seen as not to be effective because rather than building up the health knowledge within and around the child it is usually imposed on him from the "outside" as it were: without giving any consideration to his socio-economic and cultural surroundings.

Various educational methods have been tried out in various parts of the world, with the aim of ultimately changing attitudes and behaviour of school children. An example of positive change in attitudes is demonstrated by Tanzania which modifies its approach to the whole question of formal education, to suit its need. Education for self reliance emphasizes practical work rather than theoretical. School children of all educational levels are expected to find for themselves after they leave school.

Students of Morogoro teacher's college were observed to have changed their attitudes towards work and had become more innovative and self reliant as regards doing almost everything for themselves. This happened without having to change their social and economic background. (MUNCIE P.C. 1967.16)

This Tanzania example shows that it is possible to achieve some changes in attitudes and behaviour without necessarily changing the socio-economic background, provided that the students are fully
involved in the innovation right from the beginning.

The idea of involving subjects at the beginning of any innovation was used by Emery (1981:11) who wanted to try an alternative approach to the teaching of health educational other than the old teaching whereby facts are imparted to the children without much consideration of any aspects.

Working with a mixed class of 14 - 15 years old lower ability pupils in Scotland, she decided to use the theory of behaviour change in her approach to the topic "responsible sexual behaviour". Methods involved personal involvement of the teacher, participation of the pupils, awareness and skills on the part of the teacher. The lesson lasted for 1½ hours.

The children were carefully prepared by arousing emotional care and protection in themselves, and then these were used to create meaningful role-play followed by discussion. After this involvement of the children in the lesson, facts were introduced by a trained health visitor, who also answered questions; but only after the children's attitudes towards positive consideration of the new ideas had been instilled by the teacher.

The approach made it possible for the children to open up and discuss a sensitive topic freely. The children were able to discuss what they thought responsible sexual behaviour involved, without feeling embarrassed about it and hence hindering free discussion. In that sense it can be said, the lesson was successful in its delivery although the author does not discuss whether or not the children's behaviour actually changed. No follow up on the children that were given the lesson is suggested. (Emery 1981: 120).
A similar school health education project carried out in Denmark by Jensen (1982:22) recommends that a good health education programme has to be part of everybody's work and be developed with the people directly concerned, so that the clients are left with maximum responsibility for controlling their problems and necessary skills to maintain control with a minimum of professional assistance.

2.5 DEFINITION OF TERMS

The following terms have various meanings, but were used as follows for the purpose of this study.

COMMUNITY: The people living in one place, district or country considered as a whole. The community in this study is rural.

COMMUNITY AREA: A place in which people maintain homes, earn a living rear children and in general carry on most of their life activities, community members share common norms, and values.

HEALTH As defined in the WHO constitution is the state of complete physical, mental and social well being and not merely the absence of disease. In terms of this study, health is the state of complete absence of diseases.

HEALTH EDUCATION: In terms of this study, health education: The systematic process of persuading people to change their responses to disease problems involving:

(a) Giving health knowledge and the rationale behind some kinds of behaviours for example defaecating in latrines.
(b) Teaching knowledge for example how to construct latrines, rubbish dumps and washing places.

(c) Teaching methods.

<table>
<thead>
<tr>
<th>FAMILY</th>
<th>Basic unit consisting of a household head, children and other members.</th>
</tr>
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<tbody>
<tr>
<td>HOUSE-HOLD HEAD</td>
<td>The major decision maker of a house-hold (father)</td>
</tr>
<tr>
<td></td>
<td>(Mother in the absence of father) or a person who were entrusted with the care of the school children in every respect just as their parents would.</td>
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Chapter 3

STUDY DESIGN

Namanga Secondary School, Namanga (Kajiado District) Students and their house-hold heads were selected for this study. There are Three classes Form I, II and IV with approximately 40 students in each class and 8 teachers in school. Students lived in Namanga with their house-hold heads.

3.1 SAMPLING

Location: Namanga (Kajiado District)
School: Namanga Secondary School
Education: Form I, II and IV
Students:

Form I 28
Form II 30
Form IV 22
Total Students 80
House-hold heads 80 of students
Total Responds 160

Students and their house-hold heads selected on the basis of their presence during pre-post test period in Namanga. It was necessary to keep the sample size small because of the time limit and also because of the nature of the study which called for close interaction with all the subjects involved.
3.2 PROCEDURES USED

The pretest phase took a period of one month during which time

1. Two research assistants were recruited and trained for data collection. This involved orientating them to study going through the questionnaire in Namanga, and making sure that they understand what the investigator would be looking for.

2. A constant analysis of documents and school syllabi of the Namanga Secondary School was made, to see what had already been covered, what was to be covered and generally what type of health education given and the techniques used.

3. Pretest data was collected from the Students and household heads of Namanga Secondary School. The purpose for collecting the pretest data was to have basis for monitoring any change in the health knowledge levels of the students and household heads in the post-test period; as compared to the pretest period.

4. The teacher’s seminar began; the researcher identified health problems that are found in the study area, and together with the teachers they made a scheme of work outlining all the topics to be covered within a period of four weeks.

Although it was originally proposed that only new health education materials should be used in this study, it was found that some material to be covered had been touched on, but not in sufficient detail and emphasis. This warranted its re-teaching in greater detail using the new technique that was going to be used. The new technique involved the use of both English and Maasai languages as a media of instruction, because the idea was effectively passed on to
the children and therefore it was necessary to remove any language barriers.

The researcher designed the content material and visual aids to be used, and labelled in both Masai and English languages.

Pretesting of the visual aids was done. The students were asked to identify the difference objects on the charts. After the pretest activities were completed. Health education was given to the children. Each lesson was scheduled to last one hour in order to ensure that enough attention was given to each topic covered. Questions from the students were encouraged and the discussion method was largely used. The same health education material was laid down in the scheme of work was taught at the same in all the three levels of education, that is Form I, II and IV.

THE SCHEME OF WORK

TOPIC I

WEEK 1

DIARRHOEA

Symptoms.
Cause.
Prevention.
Cure.
Effects on health.
Teaching aids

Charts

Constructed rubbish dump
and latrines
TOPIC II  

WEEK II

GENERAL BODY CLEANLINESS

The importance of keeping clean, personal hygiene.

Worms

Life-cycle

Prevention

Cure

Teaching aids - Charts
bathing place.

Bilharzias

Life-cycle

Symptoms

Transmission

Prevention and cure

Effect of Bilharzia on health.

Practicals -
Teaching aids -
Materials -

Students to construct bathing and washing places.
Charts
construction of the bathing place and washing place.
Banana fibres
Sisal, and poles
huge rocks.

TOPIC III  

WEEK III

DISPOSAL OF REFUSE

HOUSE-HOLD WASTE OR REFUSE

1. Rubbish dumps and maintenance including construction.

2. Latrines construction - use and maintenance.

Practicals:

Students to construct rubbish dumps and latrines on the school compound.
Materials:

Teaching aids:

TOPIC IV
BASIC NUTRITION
Carbohydrates
Protein
Fats
Vitamins
Electrolytes

Deficiencies and treatment

Teaching aids
Charts

A period of three months was allowed between the administering of health education and the collection of the post-test data, during which time the researcher kept out of touch with the study population. The teaching aids were left mounted in the school and the teachers did revision of the lessons taught about a month. There were school holidays during this period of three months, whereby students stayed home with their parents. It was also assumed that this was a good time for the students to help, put up the various constructions taught in their own homes, while at the same time educating and advising their parents in the health knowledge gained at school.

After the period of three months post-test data was collected from the children and household heads of the experimental group. Initially the same questions as were asked in the pre-test period were asked, and then probing questions followed.
3.3. METHODS USED TO COLLECT DATA

Home to home visits were made by the researcher and interpreter whereby Questionnaire were administered to all the household heads of the study sample. The same interviews were administered to the school students at school.

It was common to find that the household head was not the biological parent of the school child, but it was quite valid to interview them, because these are the people who were entrusted with the care of the school children in every respect just as their parents would.

The study population was very co-operative during data collection and apart from walking long distances and sometimes having to revisit a home three times before interviewing the household head, there was no problem encountered.

3.4. QUESTIONNAIRE

The questionnaire was divided into two parts:-
The pretest part and the post test phase part. The pretest phase part was administered before and post-test part after health education was given.

The questionnaire which was discussed by the researcher, the teachers and interpreters to see whether it was feasible, was found to be adequate, but it needed additional probing questions in order to get a clear picture of what was being investigated. It was modified in the following ways:
(a) All answers were probed and notes written at the back of the questionnaire.
(b) The respondents were required to make general comments with guidelines from the researcher. The comments were also written at the back of the questionnaire.

Interviews for the household heads were carried out in Namanga and the ones for the school children in both Maasai and English language. Care was taken to ensure that the respondents fully understood the questions and as a result one interview would take as long as one hour especially during the post-test phase, where more probing was done.

3.5 OBSERVATION

The observation method was used to verify the answers given by the respondents. Since school children were the first to be interviewed, their answers were only confirmed after observation by the researcher during the home visits.
Chapter 4
DATA PRESENTATION/ANALYSIS

A total of 80 students made up of 63 (78.75%) males and 17 (21.25%) females and their house-hold heads were surveyed in Namanga Secondary School, and Namanga Rural area. 28 (35%) were in the class Form I, 30 (37.5%) in class Form II and 22 (27.5%) were in class Form IV. In this chapter the data collected is analysed and correlated. This is done with the assistance of 23 questions, which were the guide to this study.

Social Characteristics of the Respondents

Table 4.1 By age and sex in percent distribution.

<table>
<thead>
<tr>
<th>Age</th>
<th>Sex of the Student</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Below 12</td>
<td>11</td>
</tr>
<tr>
<td>13-16</td>
<td>73</td>
</tr>
<tr>
<td>17- and above</td>
<td>15.8</td>
</tr>
</tbody>
</table>

n=63    n=17
N=80

Table 4.1 show that 11 percent male students and 47 percent female students were below 12 years of age, 73 percent male students and 47 percent female students were between 13-16 years of age, and 15 percent male students and 6 percent female students
were aged 17 years and above.

Table 4.2 By and Class in percent Distribution.

<table>
<thead>
<tr>
<th>Age</th>
<th>CLASS LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FORM 1</td>
</tr>
<tr>
<td>Below 12</td>
<td>53</td>
</tr>
<tr>
<td>13 - 16</td>
<td>46</td>
</tr>
<tr>
<td>17 - and</td>
<td>-</td>
</tr>
<tr>
<td>above</td>
<td></td>
</tr>
</tbody>
</table>

n=28 n=30 n=22
N=80

Table 4.2 show that in class Form I 53 percent were below 12 years of age while 46 percent were between 13-16 years of age. In class Form II 83 percent were in the age 13 - 16 years, and 16 percent were aged 17 - and above. In class Form IV 54.5 percent were in age group 13 - 16 years, and 45.5 percent aged 17 years and above.
4.1 The Relationship between Improved Teaching Methods and the Respondents health knowledge Level.

Table 4.3 Health knowledge of respondents (Students and their house-hold heads) by score in percent distribution During pre-test period

<table>
<thead>
<tr>
<th>SCORE</th>
<th>STUDENTS</th>
<th>HOUSE HOLD HEADS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 8</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>9 – 16</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>17 – and above</td>
<td>45</td>
<td>40</td>
</tr>
</tbody>
</table>

n=80 n=80

N=160

Table 4.3 show that during pre-test period 45 percent students and 40 percent house-hold heads Scored 17 – and above, while 50 percent students and 55 percent house-hold heads Scored between 9 – 16, and 5 percent students and house-hold heads Scored below 8.
Table 4.4 Health knowledge of respondents (Students and their house-hold heads) by score in percent distribution during post-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>STUDENTS</th>
<th>HOUSE-HOLD HEADS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9 - 16</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>17 - and above</td>
<td>80</td>
<td>85</td>
</tr>
</tbody>
</table>

n=80            n=80
N=160

Table 4.4 show that during post-test period 80 percent students and 85 percent house-hold heads scored 17 - and above, while 20 percent students and 15 percent house-hold heads scored between 9 - 16, No student and house-hold head scored below 8.

During post-test period no student and house-hold head scored below 8, while pre-test scores showed that there was 5 percent of the students and 55 percent house-hold heads scored between 9 - 16, during pre-test period. After introduction of modified teaching methods, during post-test period 20 percent students and 15 percent house-hold heads scored between 9 - 16, 45 percent students and 40 percent house-hold heads scored 17 - and above during pre-test period, while 80 percent students and 85 percent house-hold heads scored 17 - and
above during post-test period.

This increase in score by students and house-hold heads indicates that modified teaching methods significantly raised the health knowledge level of the students and their house-hold heads.

4.2 The Relationship between the Level of Education of the Student and their Health knowledge Level.

Table 4.5 Health knowledge of students by score and class level in percent distribution During pre-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>CLASS LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FORM I</td>
</tr>
<tr>
<td>Below 8</td>
<td>11</td>
</tr>
<tr>
<td>9 - 16</td>
<td>64</td>
</tr>
<tr>
<td>17 - and above</td>
<td>25</td>
</tr>
</tbody>
</table>

n=28  n=30  n=22

N=80

Table 4.5 shows that during pre-test period 11 percent students of class Form I and 3 percent students of class Form II scored below 8, while 64 percent students of class Form I, 50 percent students of class Form II, and 36 percent students of class Form IV scored between 9 - 16, and 25 percent students of class Form IV scored between 9 - 16, and 25 percent students of
class Form I, 47 percent students of class Form II, and 64 percent students of class Form IV scored 17 – and above.

Scores show that students of higher classes scored higher than lower classes students. This increase in scores with respect to class level of the students shows that level of education of the students raises their health knowledge level.

Table 4.6 Health knowledge of students by score and class level in percent distribution During post-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>CLASS LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FORM I</td>
</tr>
<tr>
<td>Below 8</td>
<td>-</td>
</tr>
<tr>
<td>9 - 16</td>
<td>35</td>
</tr>
<tr>
<td>17 - and above</td>
<td>65</td>
</tr>
<tr>
<td>n=28</td>
<td>n=30</td>
</tr>
<tr>
<td>N=80</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.6 shows that during post-test period no students scored below 8, while 35 percent students of class Form I, 20 percent students of class Form II and 5 percent students of class form IV scored between 9 - 16, and 65 percent students of class Form I, 80 percent students of class Form II and 95 percent students of class Form IV scored 17 - and above.
Between pre-post tests period although same health education was given to all classes Form I, Form II and Form IV, the post-test data shows that higher classes students scored higher than lower classes students. It indicates that level of education of the students effect their health knowledge level.

4.3 The Relationship between the Level of Education of the Students and Health knowledge Level of Their House-hold heads.

Table 4.7 shows health knowledge of house-hold heads by score and class level of their students in percent distribution during pre-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>HOUSE HOLD-HEADS OF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLASS</td>
</tr>
<tr>
<td></td>
<td>CLASS</td>
</tr>
<tr>
<td></td>
<td>CLASS</td>
</tr>
<tr>
<td>FORM I</td>
<td>FORM II</td>
</tr>
<tr>
<td>STUDENTS</td>
<td>STUDENTS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Below 8</th>
<th>11</th>
<th>3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9 - 16</td>
<td>69</td>
<td>66</td>
<td>30</td>
</tr>
<tr>
<td>17 - and above</td>
<td>20</td>
<td>30</td>
<td>70</td>
</tr>
</tbody>
</table>

n=28  n=30  n=22  N=80

Table 4.7 shows that during pre-test period 11 percent house-hold heads of students of class Form I, and 3 percent house-hold heads students of class Form II scored below 8,
While 69 percent house-hold heads of students of class Form I, 66 percent house-hold heads of students of class Form II, and 30 percent house-hold heads of class Form IV scored between 9 – 16, and 20 percent house-hold of students of class Form I, 30 percent house-hold heads of students of class Form II and 70 percent house-hold heads of students of class Form IV scored 17 – and above.

Table 4.8 ) Health knowledge of house-hold heads by score and class level of their students in percent distribution during post-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>HOUSE HOLD HEADS OF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLASS</td>
</tr>
<tr>
<td></td>
<td>FORM I</td>
</tr>
<tr>
<td></td>
<td>STUDENTS</td>
</tr>
<tr>
<td></td>
<td>CLASS</td>
</tr>
<tr>
<td></td>
<td>FORM II</td>
</tr>
<tr>
<td></td>
<td>STUDENTS</td>
</tr>
<tr>
<td></td>
<td>CLASS</td>
</tr>
<tr>
<td></td>
<td>FORM IV</td>
</tr>
<tr>
<td></td>
<td>STUDENTS</td>
</tr>
<tr>
<td>Below 8</td>
<td>-</td>
</tr>
<tr>
<td>9 – 16</td>
<td>25</td>
</tr>
<tr>
<td>17 – and above</td>
<td>75</td>
</tr>
<tr>
<td></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>95</td>
</tr>
<tr>
<td>n=28</td>
<td>n=30</td>
</tr>
<tr>
<td>N=80</td>
<td>n=22</td>
</tr>
</tbody>
</table>

Table 4.8 ) shows that during post-test period no house-hold heads scored below 8,
25 percent house-hold heads of class Form I, 15 percent house-hold heads of students of class Form II and 5 percent house-hold heads of class Form IV scored between 9 - 16.

While 75 percent house-hold heads of students of class Form I, 85 percent house-hold heads of class Form II and 95 percent house-hold heads of students of class Form IV scored 17 - and above.

Between pre-post test period although same health education was given to all classes Form I Form II and Form IV, the post-test data shows that house-hold heads of higher classes students scored higher than house-hold heads of lower classes students. It indicates that level of education of the students effect the health knowledge level of their house-hold heads.

4.4. The Relationship between the Sex of Students and their Health knowledge Level.

Table 4.9 Health knowledge of students by score and sex in percent distribution, during pre-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>SEX OF THE STUDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALE</td>
</tr>
<tr>
<td>Below 8</td>
<td>4.8</td>
</tr>
<tr>
<td>9 - 16</td>
<td>48.5</td>
</tr>
<tr>
<td>17 - and above</td>
<td>46.5</td>
</tr>
</tbody>
</table>

n=63  N=80  n=17
Table 4.9 shows that during pre-test period 4.8 percent male students and 5 percent female students scored below 8.

48.5 percent male students and 51.5 percent female students scored between 9 - 16.

While 46.5 percent male students and 43.5 percent female students scored 17 - and above.

It shows that there was no much difference between the scores of male and female students during pre-test period.

Table 4.10 Health knowledge of students by score and sex in percent distribution during post-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>SEX OF THE STUDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALE</td>
</tr>
<tr>
<td>Below 8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>9 - 16</td>
<td>22</td>
</tr>
<tr>
<td>17 - and above</td>
<td>78</td>
</tr>
<tr>
<td>n=63</td>
<td>n=17</td>
</tr>
<tr>
<td>N=80</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.10 shows that during post-test period no students scored below 8.

While 22 percent male and 18 percent female students scored between 9 - 16, 78 percent students and 82 percent female students scored 17 - and above.
Among sexes there was no marked difference between male and female students with regard to their health knowledge scores.

It shows that there was no affect of sex of the students on their health knowledge level.

4.5 The Relationship between the Sex of the Students and the Health knowledge Level of their House-Hold Head.

Table 4.11) Health knowledge of house-hold heads by score and sex of their students in percent distribution during pre-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>HOUSE-HOLD HEADS OF</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALE STUDENTS</td>
<td>FEMALE STUDENTS</td>
<td></td>
</tr>
<tr>
<td>Below 8</td>
<td>4.8</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>9 - 16</td>
<td>35</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>17 - and above</td>
<td>40.5</td>
<td>39.5</td>
<td></td>
</tr>
<tr>
<td>n=63 n=17</td>
<td>N=80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4.11 shows that during pre-test period 4.8 percent house-hold heads of male students and 5 percent house-hold heads of female students scored below 8,
55 percent house-hold heads of male students and 55 percent house-hold heads of female students scored between 9 - 16,

While 40.5 percent house-hold heads of male students and 39.5 percent house-hold heads of female students scored 17 - and above.

It shows that there was no much difference between the scores of house-hold heads of male and female students during pre-test period.

Table 4.12) Health knowledge of house-hold heads by score and sex of their students in percent distribution during post-test period.

<table>
<thead>
<tr>
<th>SCORE</th>
<th>HOUSE-HOLD HEADS OF</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MALE</td>
<td>FEMALE</td>
</tr>
<tr>
<td></td>
<td>STUDENTS</td>
<td>STUDENTS</td>
</tr>
<tr>
<td>Below 8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>9 - 16</td>
<td>14.8</td>
<td>15.8</td>
</tr>
<tr>
<td>17 - and above</td>
<td>85.2</td>
<td>84.4</td>
</tr>
</tbody>
</table>

n=63          n=17
N=80

Table 4.12) shows that during post-test period, no house-hold head scored below 8,
While 14.8 percent house-hold heads of male students and 5.6 percent house-hold heads of female students scored between 9 - 16 and 85.2 percent house-hold heads of male students and 84.4 percent house-hold heads of female students scored 17 - and above.

Among sexes there was no marked difference between the house-hold heads of male and female students with regard to their health knowledge score. It shows that there was no effect of sex of the students on health knowledge level of their house-hold heads.
Chapter 5

Major Findings/Conclusions

Certain conclusions can be made from the data presented in Chapter IV.

Modified teaching methods significantly raised the health knowledge levels of the experimental group of students. 35 percent of students and 45 percent of house-hold heads of the experimental group who had low levels of health knowledge during the pre-test period after introduction of modified teaching methods between pre-post test period had high levels of health knowledge during the post-test period.

This shift in health knowledge levels showed that modified teaching methods used in this study play an important role in the dissemination of health knowledge to Namanga rural community.

The other conclusion is that among sexes there was no marked difference between male and female students and their house-hold heads with regard to their health knowledge levels. It shows that there was no effect of sex of the students on health knowledge level of their house-hold heads.

The study shows that the majority of the house-hold heads 80% do not differentiate between the sexes in the way that they receive advice from their students. Of those who differentiate 50% of the house-hold heads accept advice from the male children and 50% from the female ones.
The study shows that level of education of the students affect their health knowledge level and the health knowledge of their household heads. Between pre-post test period, although same health education was given to all classes Form I, II and IV and the post-test data shows that students and household heads of higher classes scored higher than those students and household heads of lower classes students. It shows that health education should give to all students Form I, II and IV irrespective of their level of education for dissemination of health education to the community. Students according to their level of education more or less dissemination the health knowledge to the community.

This study shows that 46% of household heads gave consideration to advice given to them by their students according to their level of education. 52% of household accept advice given to them by their students irrespective of their level of education. All of household heads who differentiate between advice given to them according to their student's level of education, accept advice from the children of higher level of education.

As far as the students are concerned, it seemed like the relationship between what they learn at school and how it can be applied at home, was not clear to them. The pre-test questionnaire which had question relating water faecal disposal, household waste disposal and hygiene provided the missing link between the two.
The findings imply that involvement of the students in practical work and also relating what is learnt at school about home living might not only help to increase the children's health knowledge level, but also facilitate the dissemination of health knowledge to the house-hold heads.

This study has shown that where as students can to some extent communicate the health knowledge, which they learn at school to their house-hold heads, the final decision as to whether or not the recommendations are carried out lies with the house-hold head. The house-hold head's decisions to implement depend on the type of resources that are available to them and also on appropriate alternatives that they can choose from.
Chapter 6

Recommendations and Suggestions

1. Bearing in mind the phenomenal number of illiterates in the study area, the most immediate task of the Government should be to aim at a speedy increase in the level of mass Health Education by introducing a scheme of basic health education for all. While basic health education should be the chief and immediate concern of the Government, avenues should always be open for exceptionally gifted students to pass on to higher academic, technical and commercial education.

2. While carrying out pre-post test in the experimental group, 45 percent of house-hold heads and 35 percent of students who had low level of health knowledge, however after imparting health education for a tenure of three months, they had high level of health knowledge at the post-test period.

I suggest that the modified teaching methods used in this study should be made compulsory in secondary schools from Form I to IV, which not only will raise the health knowledge of an individual student, it will also be helpful for the community at large. The Ministry of Education and Technology should render priority to health education at the secondary level irrespective of the class, instead of incorporate it with Biology or in General Science subject.
I therefore recommend to the Ministry of Education to introduce Health Education as a separate course or subject rather than being part and parcel of General Science subject. This might not only enhance and ensure high levels of health knowledge among students, but it might increase such knowledge on the part of the House-hold heads and community at large.

3. For speedy and popular dissemination of health knowledge, mass media should be used for particular, Broadcasting, and showing of education films may be very helpful in the Secondary schools. Free radio-sets therefore should be provided by M.O.E., and programmes in the radio on Health Education should be intensified. On the other hand increase the health education through the extension workers and health centre so that social evils which are the inevitable consequences of such widespread ignorance are reduced.

4. Health Training Centres should be given opportunities for teachers who should be trained in Education so that they can pass the knowledge to the students and the Community at large. Care should be taken that private publishing firms may not take unfair advantage of the business of text books. I suggest that the Government should publish cheap text books, which would be made available in all parts of the country for use by students.

5. A system of Travelling libraries on health education aspect to adult may be instituted with profit to make books accessible to all.
6. In my study I observed stagnant, marshy pools, cowdung were left to collect waste: This is wrong. Drainage system should be improved. Since stagnant and marshy pools are the chief breeding soil for mosquitos they should be either dried up or filled with waste heaps etc. Similarly, cowdung and other kind of manure should not be allowed to collect and rot near human dwellings.

7. In addition to deliver of health knowledge to the house-hold heads through school going pupils and students, supplementary education should be given to house-hold heads through public barazas or Audio-Visual methods like overhead projectors, Epidioscope Diagrams, Charts, Slides, Photographs, Films, Recorder tapes and Posters.

8. Medical assistants of Health Centres make a valuable contribution to the development of school health education. Here are suggestions on how they Medical Assistants can do it in the rural areas.

(a) They establish and maintain good relation with education staff in their area of operation. Very useful collaboration is possible.

(b) They should provide the expected health services for schools and also make sure each item of service provided is accompanied by explanation and health education.

(c) They should not - except in an epidemic conditions - teach, or encourage their staff to teach classes directly. They should concentrate on teaching teachers because their resources are not adequate to teach all the students themselves.
(d) They should emphasise all the time school hygiene, sanitation, and good food service. Health education is much practice, some discussion, but no preaching. Satisfactory washing, cleaning, and toilet facilities must come first.

(e) In epidemics or health improvement campaigns they should find a part for the schools to play and persuade the teaching staff to co-operate. Also in community clean-up activities, and other health-related community project.

(f) They should urge the teachers to explain to the students the purpose of all medical inspection, giving the reasons for them and answering questions.

(g) The school staff and health staff, far more than they realize, should be involved in the same business. Health education in the schools and in the community must play complimentary role in increasing health education. If the school has an active committee or parent's meetings these are first-class groups for discussing health topics and they should ask for their collaboration.

It is not enough to create health awareness in the rural community through health education without offering alternatives in cases where what is recommended is not feasible. A dialogue with the community should be established whereby suitable alternatives should be worked out, and if necessary expert advice sought, for example from the village technologists.
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<table>
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<tr>
<td>Health Education Division</td>
<td>A survey of health education currently in the school curriculum, Kenya Ministry of Health.</td>
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</table>
Research in health education, report of WHO scientific group.

Planning and Evaluation of Health education services, report of WHO expert committee No. 409 1969.
QUESTIONNAIRE ON HEALTH KNOWLEDGE SURVEY

BY DR. SYED MOHAMMED IQBAL MAJEED

DEMOGRAPHIC INFORMATION. SERIAL NUMBER....

1. NAME.
2. ADDRESS.
3. SEX
4. AGE
5. CLASS

PARENTAL INFORMATION. Father Mother

6. EDUCATION
7. OCCUPATION

SECTION A - Knowledge of personal hygiene.

8. It is healthy to clean my teeth every morning before I go to school. Yes No
   ( ) ( )

9. I should wash my hands after visiting toilet( ) ( )
   ( ) ( )

10. It is necessary to bath daily. ( ) ( )

11. It is not a bad habit to use my friend’s cup and spoon in school. ( ) ( )

12. Covering my mouth and nose when sneezing is not necessary. ( ) ( )

13. I should wear clean underwear everyday. ( ) ( )
SECTION B - Knowledge of Environmental Hygiene.

14. Our toilets must be clean to keep away flies.  
   Yes ( )  No ( )

15. We should allow standing water near our houses.  
   ( )   ( )

16. Refuse thrown on streets is dangerous to our health.  
   ( )   ( )

17. It is good to pass urine and stool in open areas at school and home.  
   ( )   ( )

18. Good ventilation (keeping windows and doors open) help to prevent the spread of catarrh and cough.  
   ( )   ( )

SECTION C - Knowledge of basic nutrition.

19. Meat, Beans and Fish are examples of carbohydrates-giving foods.  
   ( )   ( )

20. Yams, Rice and potatoes are examples of protein-giving foods.  
   ( )   ( )

21. Too much oil in our foods is harmful to our bodies.  
   ( )   ( )

22. Eating a lot of green vegetables and fresh fruits is better for health than eating biscuits, sweets and gums.  
   ( )   ( )

23. One glass of fanta a day is better for our health than one glass of milk a day.  
   ( )   ( )

24. We should take plenty of salt in our foods everyday.  
   ( )   ( )

SECTION D - Knowledge of communicable diseases

25. Flies can spread disease such as cholera.  
   ( )   ( )

26. Head lice are not harmful.  
   ( )   ( )

27. It is not dangerous to keep wounds open.  
   ( )   ( )

28. Drinking dirty water can give us diarrhoea.  
   ( )   ( )

29. Wearing of shoes help to prevent germs and worms from getting into our bodies.  
   ( )   ( )

30. Malaria is caused by mosquitoes.  
   ( )   ( )
### RESULTS

(i) Health knowledge scores of child during pre-test period.

<table>
<thead>
<tr>
<th>Section</th>
<th>(No. of correct answers)</th>
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<tbody>
<tr>
<td>A knowledge of personal hygiene</td>
<td>( )</td>
</tr>
<tr>
<td>B knowledge of environmental hygiene</td>
<td>( )</td>
</tr>
<tr>
<td>C knowledge of basic nutrition</td>
<td>( )</td>
</tr>
<tr>
<td>D knowledge of communicable diseases</td>
<td>( )</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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(ii) Health knowledge scores of household head during pre-test period.

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<td>( )</td>
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<td><strong>Total</strong></td>
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(iii) Health knowledge scores of child during post-test period.

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(iv) Health knowledge scores of household head during post-test period.

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### GRADES

<table>
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<tr>
<th>Correct Answers</th>
<th>Level of Health Knowledge</th>
</tr>
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<tbody>
<tr>
<td>(0-8) below average</td>
<td>Low level of health knowledge.</td>
</tr>
<tr>
<td>(9-16) average</td>
<td>High level of health knowledge.</td>
</tr>
<tr>
<td>(17-23) superior</td>
<td>- High level of health knowledge.</td>
</tr>
</tbody>
</table>

- 52 -
GENERAL COMMENTS FOR HOUSE-HOLD HEADS

1. How do you regard information given to you by your school children. Do you listen and act on it or do you tend to dismiss it as unimportant.

2. You have children at school in both the upper and lower classes, when they give you any advice do you listen and regard information from the various levels of education differently or equally.

3. What other comments would you like to give on what you have heard from your children and what you have been asked about now, and three months ago.

GENERAL COMMENTS FOR SCHOOL CHILDREN

1. What informations was it that you told to your parents?

2. Were you given that information at school?

3. How did your parents react to your information.
   (a) Did they listen
   (b) What about your educational level. Do you think they would listen more to you because you are more or less educated than the rest of your brothers and sisters.

4. Any other comments on what you generally think about how parents receive knowledge given to them by you.

   Give general information of what you think about the communication of health knowledge to your parents. What are the problems you encounter.
Your Ref:

Our Ref:

24th June, 1987

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. S.M. Iqbal Majeed a student of U.S.I.U. (A) was engaged in research work concerning the health education programme in our school from December 1986 - June 1987.

We are sincerely grateful for his suggestions regarding modified teaching health education, techniques, particularly in our District's School.

M.K. DAWRE
Director

DIRECTOR
NAMANGA SECONDARY SCHOOL
P.O.BOX 111, NAMANGA, KENYA