

OPERATIONS RESEARCH FINDINGS

**OF THE
KUMASI HEALTH EDUCATION PROJECT**

LIBRARY
INTERNATIONAL REFERENCE CENTRE
FOR COMMUNITY WATER SUPPLY AND
SANITATION (IRC)



August 1991-August 1993







LIBRARY
INTERNATIONAL REFERENCE CENTRE
FOR COMMUNITY WATER SUPPLY AND
ACKNOWLEDGEMENTS SANITATION (IRC)

This document was prepared by
Glenn Laverack, Technical
Cooperation Officer and
illustrated by
Eric Anane Antwi.

The author would like to
thank the research teams
for their hard work
and commitment to the
operations research and
thank Dr Catriona Waddington
for her contribution to this
document.

The operations research
component of the Kumasi
Health Education Project
was sponsored by the
Overseas Development
Administration.

You are welcome to translate
and reproduce any part of
this document without prior
permission from the author
provided the source is
fully acknowledged.

LIBRARY, INTERNATIONAL REFERENCE CENTRE FOR COMMUNITY WATER SUPPLY AND SANITATION (IRC) P.O. Box 95100, 2509 LD The Hague Tel (070) 814911 ext. 141/142
ISBN 12209
LO: 144 9409



CONTENTS

1. INTRODUCTION
2. AIM AND OBJECTIVES OF THE RESEARCH COMPONENT
3. THE ORGANISATIONAL STRUCTURE OF THE RESEARCH COMPONENT
4. FIELD EXPERIENCES
5. THE SELECTED RESEARCH FINDINGS

A STUDY ON FOOD HYGIENE PRACTICES IN CHOP BARS IN THE KUMASI METROPOLIS.
PRINCIPAL INVESTIGATOR: BEATRICE SAKYI

AN INVESTIGATION OF THE ACCEPTABILITY OF MEASLES IMMUNISATION IN SELECTED COMMUNITIES IN THE KUMASI DISTRICT.
PRINCIPAL INVESTIGATOR: FRANCES ROUSE

AN INVESTIGATION INTO THE UTILISATION OF PARTICIPATORY HEALTH EDUCATION MATERIALS BY SELECTED AGENTS.
PRINCIPAL INVESTIGATOR: GLENN LAVERACK

AN INVESTIGATION INTO THE UTILISATION OF CHRISTIAN CHURCH GROUPS AS HEALTH EDUCATION AGENTS IN KUMASI.
PRINCIPAL INVESTIGATOR: GLENN LAVERACK

AN INVESTIGATION INTO THE UTILISATION OF NFE FACILITATORS AS HEALTH EDUCATION AGENTS..
PRINCIPAL INVESTIGATOR: PETER EDUFUL

6. LIST OF RESEARCH PAPERS PRODUCED BY THE KUMASI HEALTH EDUCATION PROJECT. AUGUST 1991-SEPTEMBER 1993.



1. INTRODUCTION

This document is intended to provide details of a selection of the operations research findings carried out by the Kumasi Health Education Project between August 1991 and September 1993.

A reproduction of all the research carried out by the Kumasi Health Education Project would be too voluminous. A complete list of the research papers is provided at the end of this section to allow you to select further findings of interest. The research which has been reproduced in this manual will be of interest to researchers and any one involved in health education in Ghana.

Many of the findings of the research listed in this document have been incorporated into the manual entitled "Health education experiences in the Kumasi District: 1991-1994" under the headings "field experiences".

Copies of all the research papers listed in this document can be obtained from;

Head of Unit
The Kumasi Health Education Unit
Po Box 1916
Kumasi
Ghana.

2. THE AIM OF THE RESEARCH COMPONENT.

The overall aim of the research is to assist the MOH to strengthen health education services and to provide guidelines for future health education programmes in Ghana.

THE OBJECTIVES

1. To identify appropriate health education agents to coordinate and implement health education activities.
2. To provide recommendations for material and methodology requirements to support health education agents.
3. To provide guidelines for the in-service training of selected health education agents.
4. To disseminate the research findings to health education personnel.

3. THE ORGANISATIONAL STRUCTURE OF THE RESEARCH COMPONENT.

The operations research component was concerned with building up a local body of knowledge regarding health issues, developing procedures for pre-testing and materials development, the design and evaluation of in-service training workshops, the utilisation of resources and equipment, the identification of health education agents and the utilisation of participatory health education materials. The qualitative and quantitative findings of the research have formed the basis of the Project activities. The Project has explored and developed suitable approaches to health education in Ghana through in-service training and the development of participatory materials.

The research component of the Project consisted of a Coordinator, a Research Assistant, a Resource Officer and the assistance of Health Education Assistants (see job descriptions). The Coordinator supervised the design of the research proposals and allocated the necessary budget and resources through the Kumasi Health Education Project. The Research Assistant is an Environmental Health Technologist, who holds a Diploma in Primary Health Care Education and has experience in operations research. The Resource Officer is a graduate of the School of Art at UST and holds a Degree in Graphic Design. The Resource Officer was concerned with the design and production of health education materials in support of the research component. The Health Education Assistants of the Division were employed to assist the researchers to implement the proposals, for example, to distribute and collect questionnaires, to facilitate focus group discussions and to distribute information. The research team was an integral part of the Kumasi Health Education Unit.

COMPUTER EQUIPMENT**COST (\$)**\$1=CEDIS 685

AMSTRAD 9512 WP/ACCESSORIES 1125
Printer tapes/paper/floppy discs

UPS 600

Voltage Switches 38

IBM MODEL 55SX-61/8513 COLOUR MONITOR/EPSONLQ1170 PRINTER/
ENHANCED KEYBOARD 3537

IBM 425SX/MONITOR/KEYBOARD/SPARES/ 5700

EXTERNAL DISC DRIVE. 5.25"

FLOPPY DISCS

PRINTER RIBBONS

CONTINUOUS FEED PAPER

CLEANING KIT/COVERS

SOFTWARE

HUMAN RESOURCE DEVELOPMENT

The research team has been introduced to appropriate methodologies through in-service training programmes in Ghana organised by the Health Research Unit/WHO and through practical experience with the Kumasi Health Education Project in the field.

Research proposals aimed to incorporate a variety of techniques to develop the skills of the team. The techniques included;

- Sampling techniques
- Questionnaire design
- Focus group discussions
- Key informant interviews
- Observational studies
- Material pretesting
- Document and record searches.

EQUIPMENT AND RESOURCES

The research component of the Project was supported by the following equipment for data storage, analysis and documentation; **Personal computer:** IBM 55SX-61 (5.25" and 3 1/2" drives), IBM 425 SX, 2 x 8513 monitors, 2 keyboards, 1 Epson LQ 1170 dot matrix printer, 1 Amstrad 9512 word processor, **P.C. software:** Wordperfect 5.1, Locoscript/spell, Lotus 3.3, Epiinfo, Lotus freelance graphics, D-base IV, Harvard Graphics, Windows 3.0.

Voltage regulation: 4 UPS Accupower model 30 and 4 Sollatek auto voltage switches (see list for costs).

The research team had access to a vehicle, budget, stationery, photocopier, stencil machine, secretary and other office facilities.

DISSEMINATION OF THE RESEARCH FINDINGS

The research findings were fed back into the M.O.H. at the district, regional and national levels. Workshops and research reports were used to disseminate the information. This manual will be distributed to key members within the MOH and GES. The research findings will also be useful to health educators in other countries and the international publication of some of the research findings has been carried out by the Project.

4. FIELD EXPERIENCES.

SOME OF THE EXPERIENCES AND LESSONS LEARNT DURING THE PROJECT ARE GIVEN BELOW TO PROVIDE A DEEPER INSIGHT INTO THE PRACTICAL PROBLEMS OF IMPLEMENTING A RESEARCH PROGRAMME.

- *Capital costs are high. For example the initial cost of voltage protectors, computers, software and air conditioners.
- *Running costs are high. For example the replacement of printer ribbons, paper, floppy discs and stationery.
- *Correct training in the use of the computers must be provided for all staff and this can be expensive, approx cedis 75000 per person.
- *Maintenance and repairs are very expensive and may be difficult to obtain in-country. Try to obtain a service contract with the suppliers.
- *A correct environment for the discs and computers is necessary in a separate air conditioned room.
- *Research staff will require daily allowances for field work which should be included in the programme budget.
- *The research team should have access to a vehicle, budget, stationery, photocopier, binding machine, a secretary and other office facilities.
- *Consider carefully at whom the findings are targeted and determine how they will be disseminated. For example, through workshops, seminars, reports and publications.
- *There is the need for follow-up activities which should be a part of the outcome of the research. For example, the "STUDY ON FOOD HYGIENE PRACTICES IN CHOP BARS IN THE KUMASI METROPOLIS" was followed up with the development of flash cards to educate chop bar keepers, workshops to brief management and chop bar keepers, the distribution of the flash cards and training to Environmental Health Officers and an evaluation to ensure the materials were being utilised.
- *Seek support of the research findings by passing them through the relevant ministry or senior management prior to widespread dissemination. This will assist the researcher with follow-up activities.

5. THE SELECTED RESEARCH FINDINGS;

A STUDY ON FOOD HYGIENE PRACTICES IN CHOP BARS IN THE KUMASI METROPOLIS. FEB 92.

A study designed to determine the factors leading to the low levels of food hygiene practices in the Kumasi metropolis. The study examines the Knowledge, Attitude and Practices which lead to poor food hygiene and as a consequence contribute to the high incidence of diarrhoeal diseases and the annual outbreaks of cholera. The study makes recommendations to the DHMT which could apply to most urban districts.

AN INVESTIGATION OF THE ACCEPTABILITY OF MEASLES IMMUNISATION IN SELECTED COMMUNITIES IN THE KUMASI DISTRICT. NOV 92

The uptake of measles immunisation in the Kumasi District has not exceeded 75% since the inception of the Expanded Programme of Immunisation (EPI). Coverage of the target population had only reached 33% in the first half of 1992 despite the vaccine being readily available. Factors influencing the acceptability of the immunisation in the community were investigated by household discussion and key informant interviews.

AN INVESTIGATION INTO THE UTILISATION OF PARTICIPATORY HEALTH EDUCATION MATERIALS BY SELECTED AGENTS. SEPT 93.

The Kumasi Health Education Project has developed a range of participatory health education materials which were introduced to selected agents in the Kumasi district. Although health education is widely accepted as the responsibility of many agents, in practice few personnel carry out these activities. The study attempted to determine if the participatory materials were being utilised by the selected agents through interviews and focus group discussions with the intended target groups.

AN INVESTIGATION INTO THE UTILISATION OF CHRISTIAN CHURCH GROUPS AS HEALTH EDUCATION AGENTS IN KUMASI. FEB 93

The aim of the study was to determine whether christian church groups can be utilised as health education agents from a sample taken in the Kumasi district. Given that a quarter of the population of Ghana could be educated about health issues through religious groups, the study investigated the utilisation of christian church groups as health education agents. The study methodologies were key informant interviews and a self-reporting questionnaire.

**AN INVESTIGATION INTO THE UTILISATION OF NFE FACILITATORS AS
HEALTH EDUCATION AGENTS. APRIL 93**

A study to determine whether the non formal education facilitators at the district level could be utilised as health education agents through the use of participatory materials designed to supplement their lessons. Focus group discussions and key informant interviews were employed.

6. LIST OF RESEARCH PAPERS PRODUCED BY THE KUMASI HEALTH EDUCATION PROJECT. AUGUST 1991-SEPTEMBER 1993.

A. KNOWLEDGE, ATTITUDE AND PRACTICE STUDIES.

1. A GUIDE TO THE BELIEFS AND PRACTICES CONCERNING HEALTH IN THE KUMASI METROPOLIS. FEB 92.
2. KAP STUDY REGARDING WATER AND SANITATION AND AN ASSESSMENT OF AWARENESS LEVELS USING A PARTICIPATORY TECHNIQUE. AUG 91
3. A STUDY ON FOOD HYGIENE PRACTICES IN CHOP BARS IN THE KUMASI METROPOLIS. FEB 92.
4. A SUMMARY OF RESEARCH FINDINGS ON HIV/AIDS STUDIES IN GHANA 1988-1991. JULY 92
5. AN INVESTIGATION OF THE PERCEPTIONS HELD BY KEY DECISION MAKERS IN THE K.M.A. AND THE M.O.H. OF THE ROLE AND FUNCTION OF THE KUMASI HEALTH EDUCATION DIVISION. OCT 92
6. AN INVESTIGATION OF THE ACCEPTABILITY OF MEASLES IMMUNISATION IN SELECTED COMMUNITIES' IN THE KUMASI DISTRICT. NOV 92
7. A SURVEY TO IDENTIFY EXISTING PRACTICES BY HEALTH WORKERS IN THE OBSTETRICAL UNITS OF THE DISTRICT HEALTH FACILITIES IN RELATION TO BREAST FEEDING. MARCH 93

B. THE EVALUATION OF IN-SERVICE TRAINING PROGRAMMES

8. A PROCESS EVALUATION OF THE K.M.A. AND DISTRICT M.O.H. HEALTH WORKERS IN SERVICE TRAINING WORKSHOPS. SEPT 91
9. AN OUTCOME EVALUATION OF K.M.A. AND DISTRICT M.O.H. HEALTH WORKERS IN SERVICE TRAINING WORKSHOPS. MARCH 92
10. A PROCESS EVALUATION OF THE J.S.S. TEACHERS IN SERVICE TRAINING WORKSHOPS. JAN 92
11. AN OUTCOME EVALUATION OF THE J.S.S. IN SERVICE TRAINING WORKSHOPS. JUNE 92
12. A PROCESS EVALUATION OF THE PRIMARY SCHOOL TEACHERS IN SERVICE TRAINING WORKSHOPS. JUNE 92
13. AN OUTCOME EVALUATION OF THE PRIMARY SCHOOL TEACHERS IN SERVICE TRAINING WORKSHOPS. FEB 93

C. STUDIES ABOUT THE UTILISATION OF HEALTH EDUCATION RESOURCES

14. AN ANALYSIS OF THE UTILISATION OF THE PROJECT RESOURCE CENTRE AND LIBRARY FOR PERIOD JAN-SEPT 1992. OCT 92

15. AN INVESTIGATION INTO THE UTILISATION OF PARTICIPATORY HEALTH EDUCATION MATERIALS BY SELECTED AGENTS. SEPT 93.
16. A COMPARATIVE STUDY OF THE UTILISATION OF THE RESOURCE CENTRE FOR PERIODS JAN-SEPT 92 AND OCT 92 TO JUNE 93.

D. THE IDENTIFICATION OF APPROPRIATE HEALTH EDUCATION AGENTS.

17. AN EVALUATION OF THE DISTRICT CAMPAIGN PROGRAMME IN SUPPORT OF SELECTED VILLAGE HEALTH COMMITTEES. FEB 93
18. AN INVESTIGATION INTO THE UTILISATION OF CHRISTIAN CHURCH GROUPS AS HEALTH EDUCATION AGENTS IN KUMASI. FEB 93
19. AN INVESTIGATION INTO THE UTILISATION OF NFE FACILITATORS AS HEALTH EDUCATION AGENTS. APRIL 93

JOB DESCRIPTION

TITLE : RESEARCH ASSISTANT
EMPLOYER : MINISTRY OF HEALTH

The Research Assistant will be responsible for the implementation of the research element of the Unit. He/She will work closely with the Health Education Officer and the Technical Cooperation Officer to design and carry out research proposals.

He/she will be responsible to the Head of the Unit to implement the research element. He/She will receive in-service training requiring him/her to attend workshops, seminars and conferences in Ghana.

In particular his/her duties will include;

1. To design and prepare research proposals
2. To implement the research through the collection and analysis of data.
3. To document the findings of the research.
4. To liaise with the Health Services Research Unit and other organisations on the findings of the research.
5. To participate in workshops and seminars and if necessary to present papers on the findings of the research.

QUALIFICATIONS

The Research Assistant should hold a 1st degree or post graduate Diploma in Social Sciences or a health discipline. Experience in the design and implementation of research proposals would be an advantage.

JOB DESCRIPTION

TITLE: HEALTH EDUCATION ASSISTANT

EMPLOYER: MINISTRY OF HEALTH

The Health Education Assistant will be responsible for the implementation of health education and training programmes conducted by the Division. He/she will establish and maintain a good working relationship with the target populations in the community for the purpose of carrying out health education. He/she will be expected to utilise the materials and resources made available to him/her for health education. He/she will collaborate with the Health Education Officer and Resource Officer for the implementation of programmes.

He/she will be responsible to the Health Education Officer and will receive in-service training requiring him/her to attend workshops in health education.

In particular his/her duties will include;

-The implementation of health education and training programmes.

-The preparation and testing of health education and training materials.

-Monitoring and reporting on aspects of health education programmes.

-The utilisation of health education materials and the training of others to use these facilities.

QUALIFICATIONS

The Health Education Assistant should have experience in health education and training programmes. He/she should have a health or sociology related qualification. He/she should be fluent in English and Twi and in Hausa is an advantage. He/she should have experience of working with other health professionals and members of the community.



A STUDY ON FOOD HYGIENE PRACTICES IN CHOP BARS IN THE KUMASI METROPOLIS



PRINCIPAL INVESTIGATOR
BEATRICE SAKYI

RESEARCHERS
FELICIA DONKOR
J.K. AMUZU
A.M. ABDULAI
PETER EDUFUL
ELIZABETH BEMPONG



EXECUTIVE SUMMARY

The Kumasi Metropolitan Assembly (KMA) and the District Health Management Team (DHMT), which is the Government agency in charge of the implementation of health programmes in the metropolis, have been concerned about the poor sanitary conditions in the metropolis. The metropolis has a host of health facilities including a teaching hospital, five urban health centres and over 100 private health facilities. But poor sanitary conditions have led to a very high morbidity and risk of epidemics. Diarrhoeal diseases remain the second commonest disease reported in all the health institutions.

There is a daily influx of about 200,000 people into the metropolis and this had led to the flourishing of the cooked food business in the metropolis. Most of the food sellers prepare their food under unhygienic conditions.

In spite of the health education given by the KMA and DHMT on food hygiene and food hygiene practices, the education seemed not to have had any impact on hygiene practice. This has necessitated the study to determine the factors leading to the low practices on food hygiene among chop bar keepers in the metropolis.

General Objective

To determine the factors leading to the low levels of food hygiene practices among chop bar keepers in the Kumasi Metropolis.

Specific Objectives

- To assess the knowledge level of chop bar keepers on:
- a. Food hygiene
 - b. Food related diseases
2. To determine what health education messages have been received by chop bar keepers.
 3. To determine the other factors that contribute to the poor food hygiene practices among chop bar keepers in the Kumasi Metropolis.
 4. To make recommendations to the KMA and the DHMT of the Kumasi Metropolis on interventions to:
 - a. improve the knowledge of chop bar keepers on food hygiene and food related diseases.
 - b. Improve the food hygiene practices of the chop bar keepers.

Study Area:

The study was carried out in the four sub metros of the Kumasi Metropolis. Areas chosen for the study were Asafo, Ayigya, Bamtama, Kejetia and Suame.

Study type:

Non intervention descriptive cross sectional.

Sampling:

A convenient sample of 100 chop bar keepers was selected from the five areas. Data was collected using questionnaires and focus group discussions.

Findings and Conclusion

The research analysis and findings revealed that the level of knowledge on food hygiene of the chop bar keepers was high in all the sample areas.

On the other hand, knowledge levels on food related diseases varied from area to area, being high in certain areas and low in others. This difference in knowledge on food related diseases in the various areas was found to be statistically significant. It may be due to the intensive health education during the cholera outbreak in certain areas prior to the study.

Levels of knowledge of chop bar keepers on food related diseases were found to be independent of their educational status.

Concerning food hygiene practices, most of the chop bar keepers, 51%, had stand pipes in their chop bars. The rest, 49%, did not have stand pipes in their chop bars. They buy water from their neighbours which restricted the usage of water. This affected the level of cleanliness maintained at the bars.

Most chop bar keepers washed drinking cups infrequently, customers are therefore likely to use the same cup before it is washed. This may result in contamination and possible infection.

It was revealed that laziness of both assistants and chop bar keepers, laxity in supervision and insufficient funds on the part of chop bar keepers were major contributory factors to the poor food hygiene practices in the metropolis.

During the focus group discussions it was revealed that the environmental health officers have been educating the chop bar keepers on food hygiene, environmental sanitation and personal hygiene. Similar messages were also received from the Association of Chop Bar Keepers meetings.

RECOMMENDATIONS

Recommendations to health education unit Ministry of Health

- Health education must be sustained with emphasis on food related diseases and should be disseminated in all areas of the metropolis.
- Health education messages must bring out the relationship between food, disease and its implications to the general public.
- The health education unit should organize public education in hygiene practices for the general public.
- Environmental Health Officers should not be selective in education but extend their education to all categories of food handlers including food hawkers, vegetable grinding mill operators etc.

Recommendations to chop bar keepers

- Chop Bar Keepers should be advised to buy refrigerators if affordable.
- The water fetching /storage container should not be used for any other purpose and should be that which can easily be cleaned.
- An assistant should be assigned to the washing of the cups so that the cups be washed immediately after use. Moreover chop bar keepers must have enough cups so that clean ones can always be available.

Recommendations to Kumasi Metropolitan Assembly

In-service training should be organized for all the environmental health officers on code of conduct.

The KMA must establish a mutually beneficial working relationship with the chop bar keepers association through monthly meetings and periodic discussions this will help the association to receive any assistance needed from the KMA, for example, arranging loans.

KMA should provide permanent infrastructure, approved site, drainage system and light, and encourage chop bar keepers to have stand pipes

TABLE OF CONTENTS

CHAPTER	1.	INTRODUCTION
	1.1	Background information
	1.2	Statement of the problem
	1.3	Literature review
CHAPTER	2.0	OBJECTIVES
	2.1	General Objectives
	2.2	Specific Objectives
CHAPTER	3.0	METHODOLOGY
	3.1	Study type
	3.2	Variables
	3.3	Sampling
	3.4	Data Collection Techniques
	3.5	Data Collection Tools
	3.6	Data Analysis
	3.7	Limitations of the study
CHAPTER	4.0	FINDINGS AND CONCLUSIONS
	4.1	Background information
	4.1.1	Age of Chop Bar Keepers
	4.1.2	Educational Status of Chop Bar Keepers
	4.1.3	Types of food sold
	4.2.	Knowledge of Chop Bar Keepers on Food Hygiene and food related diseases.
	4.2.1	Knowledge levels
	4.2.2.	Actual knowledge
	4.2.2.1.	Personal Hygiene
	4.2.2.2.	Food Related Diseases
	4.3	Food Hygiene Practices of Chop Bar Keepers

	4.3.1	Water Supply
	4.3.1.1	Sources
	4.3.1.2	Containers used for fetching drinking water
	4.3.1.3	Storage of Water
	4.3.1.4	Drinking Cups
	4.3.2	Food Preservation
	4.3.3	Health Education to Chop Bar Keepers
	4.3.4	Reasons for Poor Food Hygiene Practices
	4.3.5	Suggestions from Chop Bar Keepers on ways of improving Food Hygiene Practices
CHAPTER	5.0	DISCUSSION
	5.1	Knowledge Levels of Food Hygiene and Food Related Diseases
	5.1.1	Association of knowledge levels with area and educational background
	5.1.2	Personal Hygiene
	5.2	Practices
	5.2.1.	Containers used for fetching drinking water
	5.2.2.	Storage of drinking water
	5.2.3	Drinking Cups
	5.2.4	Food Preservation
	5.2.5	Reasons for Poor Food Hygiene Practices
CHAPTER	6.0	RECOMMENDATIONS
	6.1	Health Education
	6.2	Food Hygiene
	6.3	Infrastructure
	6.4	Relationship with chop bar keepers association
	6.5	Inservice training for health inspectors

LIST OF TABLES

- | | |
|---------|--|
| TABLE 1 | Age Range and Frequency |
| 2. | Distribution of the level of Education of Chop Bar Keepers |
| 3. | Percentage of Types of Food Sold |
| 4. | Knowledge Level on Food Hygiene |
| 5. | The Relationship between level of knowledge on FRD and educational background. |
| 6. | Knowledge on causes of diarrhoea |
| 7. | Knowledge of transmission of diarrhoea |
| 8. | Knowledge on control of diarrhoea |
| 9. | Frequency on washing drinking cups. |

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND

Kumasi Metropolis is one of the eighteen districts in the Ashanti Region. The Kumasi Metropolis is the capital of the Region and also the second largest city in Ghana. The Metropolis is centrally located in the heart of Ghana with a population of 600,000.

About 60% of the population are involved in trading as an occupation. Because of this, most people eat outside their homes. Consequently, there is a high demand for cooked food outside of homes. In addition to these, some 200,000 travellers visit the metropolis daily, either to trade, or in transit to other parts of the country. This travellers also need food. This state of affairs has led to the flourishing of the cooked food business in the metropolis.

The cooked food business is concentrated mainly at the "Central Business District" where there exist two very large markets, well known in Ghana and the West African Sub-region. The Central Business District includes Kejetia Asafo, Alla Bar, Roman Hill and Adum where commercial activities are mainly concentrated.

There are several types of food vendors including chop bar keepers, kenkey sellers, cooked rice sellers, cooked yam sellers, etc.

The chop bar keepers have an organised and powerful association. One of the functions of this association is to organise health education lectures, especially on food hygiene practices, at some of their meetings.

Though the metropolis may boast of a host of health facilities including a teaching hospital, five urban health centres, and over 100 private health facilities, poor sanitary conditions have led to a very high morbidity and risk of epidemics. Diarrhoeal diseases remain the second commonest disease reported in all the health institutions.

1.2 STATEMENT OF THE PROBLEM

Most of the chop bar keepers operate at the city centre of Kumasi and they serve a large number of the population with cooked food. Chop bar keepers operate under unhygienic conditions and consumers are exposed to diseases related to poor food hygiene. This is partly reflected by the high incidence of gastrointestinal diseases reported each year in the metropolis. There have also been outbreaks of Cholera in the metropolis, with a recent one in July 1991.

Cholera germs are known to spread through food exposed to flies, and dirty or contaminated water. As a result, food and water need to be adequately protected. It is uncertain what level of education on the causes and prevention of food related and water

borne diseases has been implemented.

The FHU and the DHMT have been organizing food hygiene education for chop bar keepers, but the latter seem not to have made much improvement in their practices. The KMA and the DHMT, therefore, need to know why food hygiene practices among chop bar keepers are so low in spite of all the health education being given to them.

This study was to determine the factors that lead to low levels of food hygiene practice among chop bar keepers in the Kumasi metropolis. It further assessed the knowledge level of chop bar keepers in food related diseases and determined the level of health education they received.

The factors identified as possibly influencing the core problem of low practices of food hygiene in the Kumasi Metropolis) were as follows;

1. Level of knowledge on food hygiene and food related diseases.
2. Educational status of chop bar keepers.
3. Health education messages received
4. Other factors influencing food hygiene practices.

1.3 LITERATURE REVIEW

The sort of attention given to food hygiene practices by food vendors has been a great concern to the Ministry of Health and most Metropolitan/District Assemblies in Ghana.

In the Kumasi Metropolis one of the worst offenders are the chop bar keepers, who give inadequate attention to Food Hygiene. There is no available literature on the operations of chop bar keepers, neither has there been any research work done on the topic.

Micro-organisms multiply quickly in dirty, damp and warm places. It is important to keep food as far as possible in a clean, dry, cool place (Health Education Unit Journal Marblebon Place London 1991) However, most chop bars in the Metropolis, operate under dirty conditions, and are therefore below standard.

Most food items purchased by the chop bar keepers have high water content such as meat, fish, tomatoes etc and are highly perishable. Therefore there are two possibilities of improving food quality either some means of preservation must be used or food must be cooked and eaten as soon as possible (Health Education Unit Journal Marbledon Place London 1991).

Preservation Facilities are lacking in most chop bars and there is a likelihood of a high rate of decay of food items. The knowledge of the chop bar keepers relating to micro-organisms

thriving in decaying food items, dirt, unwashed utensils kitchen bins, all of which provide ideal conditions for bacterial growth, leaves much to be desired.

Many, cases of diarrhoea and vomiting have been reported recently within the Metropolis and some other districts in the country.

The Health Authorities had suspected cholera and in some cases bacterial food poisoning. Bacterial food poisoning is an acute disturbance of the gastro-intestinal tract resulting in abdominal pains with or without diarrhoea and vomiting, and is due to bacteria or their toxins (Sprenger 1985).

Cleanliness of table surfaces, water containers, serving equipment and the whole environment where food is prepared is a very important factor in the chop bar business.

In a bid to ensure proper handling of food, (that is good Food Hygiene Practices within the Metropolis), the K.M.A has provided bye-laws to govern the operations of the chop bars. (The Kumasi City Council Control of Hotels, Restaurants and Eating-Housing (Chop Bars) Bye-Laws 1987)

CHAPTER TWO

OBJECTIVES

2.1 GENERAL OBJECTIVE

To determine the factors leading to low levels of food hygiene practice among chop bar keepers in the Kumasi metropolis.

2.2 SPECIFIC OBJECTIVES

1. To assess the knowledge level of chop bar keepers on:
 - a) Food hygiene
 - b) Food related diseases
2. To determine what health education messages have been received by chop bar keepers.
3. To determine the other factors that contribute to the poor food hygiene practices among chop bar keepers in the Kumasi metropolis.
4. To make recommendations to the KMA, DHMT and the CBKA of the Kumasi Metropolis on interventions to
 - a. improve the knowledge of chop bar keepers on food hygiene, and food related diseases.
 - b. improve the food hygiene practices of the chop bar keepers.

CHAPTER THREE

METHODOLOGY

3.1 STUDY TYPE

The study is a non - intervention, descriptive, cross - sectional type. The study describes and analyses situations such as the hygienic practices of chop bar keepers. It involves the systematic collection and presentation of data. It covers a sample of the chop bar population.

3.2 VARIABLES

Data was collected on the following variables;

1. Educational level of chop bar keepers.
2. Health education messages received.
3. Knowledge levels of chop bar keepers on food hygiene and food related diseases
4. Other factors influencing food hygiene practices

3.3 SAMPLING

A convenient sample of 100 chop bars keepers was selected from five areas within the Kumasi metropolis. These areas are;

Asafo

Ayigya

Bantama

Kejetia and

Suame

The selection of Kejetia and Asafo was purposely from the Subin sub metro and was based on the fact that these were in the centre of the Metropolis and contained the majority of the chop bars. Each of the other areas was selected by random sampling a list of areas in the submetros as follows;

<u>Submetro</u>	<u>Area</u>
Asokwa	Ayigya
Bantama	Bantama
Manhyia	Suame

Groups of between 6 and 10 chop bar keepers were selected by convenience in all the areas except Asafo for the focus group discussions. This is because the available list of the chop bar keepers did not show their locations. This made it difficult for the team to use random sampling for the selection. After organizing the discussions in the four areas it was realised that

the responses were similar, so there was no need for further focus group discussions.

3.4 DATA COLLECTION TECHNIQUES

Data was collected by members of the team by interviewing chop bar keepers using questionnaire and focus group discussions.

3.5 DATA COLLECTION TOOLS

The questionnaire and the focus group discussion guide are presented in the annex.

3.6 DATA ANALYSIS

Initial data analysis was done by hand by the research team. Data was coded put in a master sheet and scored using the scoring scale and graded.

Statistical calculations were done by computer using the Epiinfo programme.

3.7 LIMITATIONS OF THE STUDY

1. During the administration of the questionnaire, it became apparent that 24% of respondents were caretakers rather than owners, but this group did take major decisions on the operation of the chop bars. However, some of these caretakers did not attend the Chop Bar Keepers Association meetings where some health education is given. Though health education messages are disseminated to those caretakers who do not attend the meetings, one cannot be sure if the messages are rightly transmitted, therefore the impact of these association meetings on knowledge level as claimed in this study may not be wholly true.

2. Unwillingness of some of the chop bar keepers, especially the caretakers, to give full information, because of the fear of what the information will be used for, can have an influence on the findings. However the numbers of such caretakers involved are so few that it is not a very important limitation.

3. The sample of chop bar keepers was a convenient sample and that can affect the representativeness of the findings to the chop bar keepers on the metropolis as a whole.

4. Chop bar assistants could not be interviewed to ascertain whether blames being put on them by the chop bar keepers were true. Therefore their views are also not represented in this study.

CHAPTER FOUR
FINDINGS AND CONCLUSIONS

4.1 BACKGROUND INFORMATION

The research team sampled 100 chop bar keepers in five areas of the Metropolis. The research was intended for chop bar owners and out of the 100 chop bar keepers who responded to the questionnaire, 76 were owners and 24 caretakers

There were 97 female chop bar keepers and 3 males.

4.1.1 Age of chop bar keepers

The age range and frequencies of the chop bar keepers are given in the table below:

Table 1: Frequency distribution of ages.

AGE RANGE	FREQUENCY
15 - 24	10
25 - 34	23
35 - 44	34
45 - 54	25
55 - 64	6
ABOVE 64	2
TOTAL	100 (n=100)

The majority of the chop bar keepers 82% were aged between 25 and 54 years.

4.1.2 Educational Status of Chop Bar Keepers

The table below shows the distribution of the level of education of chop bar keepers interviewed.

Statistical calculations showed that levels of knowledge of chop bar keepers on food related diseases was independent of their educational status.

From the focus group discussions, it was found that there was a lot of health education given to the chop bar keepers through talks and film shows, during the Cholera outbreak. This was mostly done at Kejetia.

4.2.2 Knowledge on specific topics

4.2.2.1 Personal hygiene

From the five areas surveyed, the knowledge of the chop bar keepers on personal hygiene was very high. The majority of them knew that it was necessary to wash hands after the following activities;

- counting money
- sweeping
- handling raw meat and charcoal
- defecation, and
- before preparing and serving food.

When asked why washing of hands was necessary after these activities, the majority of them said "To avoid dirt and contamination of food and water."

All the chop bar keepers except one, who was a Muslim, said soap and water were necessary for washing hands. The Muslim explained that, according to the Muslim religion, the contact of soap to water made the water impure for ablution, hence he did not use soap for washing hands.

4.2.2.2 FOOD RELATED DISEASES

Respondents were asked if a worker having diarrhoea could contaminate food and water in the chop bar. The answers received are summarised in table six below.

Table 2: Distribution of the level of education of chop bar keepers.

AREA	FORMAL EDUCATION	NO FORMAL EDUCATION
ASAFO	10	10
AYIGYA	8	12
BANTAMA	10	10
KEJETIA	12	8
SUAME	8	12
TOTAL	48	52

The table shows that out of the 100 chop bar keepers interviewed 48% had formal education and 52% had no formal education. Formal education refers to primary and middle/junior secondary school.

The differences in the educational background of the chop bar keepers between the various areas was found not to be statistically significant. (refer to annex). This means that the level of educational background in the various areas does not really vary.

Types of food sold

The chop bar keepers sell various types of food. some combine the sale of 3 or more different types of food. . The foods sold were Fufu, banku, Konkonte, Omo Tuo, Ampesi, Tuo Zarfi, Rice, Gari and beans, and Kenkey. The various types of foods sold are presented in the table below.

Fufu and Banku were found to be mostly commonly sold food. Out of a 100 chop bar keepers interviewed, 54 of them sold fufu and fifty-one (51) sold Banku.

Table 3: Types of food sold

TYPE OF FOOD SOLD	FREQUENCY
FUFU	54
BANKU	51
OMO TUO	28
TUO ZARFI (TZ)	21
RICE	19
AMPESI	19
KONKONTE	12
KENKEY	4
GARI AND BEANS	3

4.2 KNOWLEDGE OF CHOP BAR KEEPERS ON FOOD HYGIENE AND FOOD RELATED DISEASES

Knowledge Levels

Series of questions were administered to chop bar keepers to test their knowledge on food hygiene. The scores were graded as follows;

0 - 49% of answers right Low knowledge
50 - 100 % of answers right High knowledge

The questions on food related diseases were graded separately in order to obtain the level of knowledge of the chop bar keepers on that topic. The average percentages scored in the various areas on general knowledge of food hygiene and food related diseases are presented in the table below.

Table 4: Average percentage scores on food hygiene and food related diseases.

AREAS	KNOWLEDGE LEVEL ON FOOD HYGIENE	KNOWLEDGE LEVELS ON FOOD RELATED DISEASES
ASAFO	100	45
AYIGYA	100	90
BANTAMA	100	80
KEJETIA	100	80
SUAME	100	50

The table above revealed that the level of knowledge of chop bar keepers in the Metropolis on food hygiene was generally very high.

From the observations made above, it could be said that it does not matter where the chop bar keepers operate, their level of knowledge on general food hygiene is high.

Knowledge levels on food related diseases were different for the various areas, being high in Ayigya, Bantama, and Kejetia. The other areas, Asafo and Suame had lower levels of knowledge on the topic. This difference in knowledge on food related diseases in the various areas was found to be statistically significant.

Level of knowledge on food related diseases was cross tabulated with educational background to assess any association. The results are given below.

Table 5: The relationship between level of knowledge on Food Related Diseases and Educational background.

EDUCATIONAL STATUS	HIGH KNOWLEDGE LEVEL ON FRD	LOW KNOWLEDGE LEVEL ON FRD	TOTAL
NO FORMAL EDUCATION	33	19	52
FORMAL EDUCATION	36	12	48
TOTAL	69	31	100

Table 6: Ideas on contamination of water/food of someone with diarrhoea

AREA	YES	NO	DON'T KNOW
ASAFO	9	4	7
AYIGYA	7	6	7
BANTAMA	8	3	9
KEJETIA	14	2	4
SUAME	10	1	9
TOTAL (%)	48%	16%	36%

Respondents ideas on how one gets diarrhoea is summarised in the table below.

Table 7: Ideas on causes of diarrhoea

ANSWER	FREQUENCY
OVERFEEDING	1
EXPOSED FOOD	12
ALLERGY	21
TOO MUCH PEPPER	6
HALF COOKED FOOD	10
FLIES	5
CONTAMINATED FOOD/WATER	14
COLD FOOD	13
CUPS EXPOSED TO FLIES	5
DIRTY HANDS	6
DIRTY SURROUNDINGS	2
EATING DIRTY FOOD	11
DON'T KNOW	25

Forty-two percent of the answers given were correct as to how one gets diarrhoea, whilst 58% of the answers attributed diarrhoea to wrong reasons such as "overfeeding", "allergy" and "don't know". (Note that chop bar keepers could give more than one answer)

Respondents were also asked, what they would do if one of their staff got diarrhoea whilst at work. Their answers are presented in the table below.

Table 8: Knowledge on treatment of diarrhoea

ANSWER	FREQUENCY
LET HER GO HOME	24
LET HER GO TO THE HOSPITAL	61
BUY HER DRUGS	25
GIVE ORAL REHYDRATION THERAPY	12
CONTINUE WORKING	1

From the table above only 85 chop bar keepers would stop the assistant from working whereas fifteen would allow them to continue and the risk of infecting others. (Note that chop bar keeper could give more than one answer)

4.3 FOOD HYGIENE PRACTICES OF CHOP BAR KEEPERS

4.3.1 Water supply

4.3.1.1 Sources

Fifty-one percent of the chop bar keepers had stand pipes in their chop bars. These chop bar keepers had permanent structures and had been established for between 10 and 15 years.

The 49% who do not have stand pipes in their chop bars fetch water from their neighbour's stand pipes. This group pay for the water they fetch from their neighbours and therefore minimise the use of water. This affects level of cleanliness that is maintained in their chop bars.

4.3.1.2. Containers used for fetching drinking water

Containers used by the chop bar keepers in fetching drinking water include the following;

Table 9: Types of Container used for drinking water

Pan	34%
Bucket	41%
Both pan and bucket	9%
Others (aluminium bowls Rubber hose)	16%

The pans are either made of enamel or aluminium, and the buckets are either metal or plastic.

Respondents were asked if they used the container for fetching

drinking water for other purposes. Seventeen percent of chop bar keepers used them for the following additional purposes;

Table 10: Drinking water containers

Washing clothes, plates and cups	2%
Storage of uncooked food like corn dough	11%
Storage of cooked food	4%

Even though this figure (17%) is low, it is still noteworthy because the use of the same containers for those additional purposes constitutes a health risk.

4.3.1.3 STORAGE OF DRINKING WATER

Chop bar keepers store drinking water in the following containers;

Table 11: Drinking water containers

Barrels	34%
Buckets	5%
Earthenware pots	5%
Plastic containers	26%
Big aluminium pans	23%
Direct from taps	7%

Storage of water in barrels and buckets, which constitutes 39% of storage facilities for water among chop bar keepers, is not acceptable because of difficulty in cleaning the barrels and the possibility of using the buckets for other purposes.

4.3.1.4 Drinking cups

At all the chop bars visited, it was said that drinking cups were kept in hot salty water but most of them were not washed immediately after use. The frequency of washing of drinking cups is given in the table below.

Table 9 Frequency of washing drinking cups

No. of times of cup washing per day	Percentage of chop bars
2	6
3	29
4	16
5 times	8
Wash cups immediately after use	34
Wash cups when they are dirty with oil	7
TOTAL	100

From the table above, 34% of the chop bar keepers wash their drinking cups immediately after use. The rest, as high as 66%, wash their drinking cups 2-5 times daily and when dirty with oil. This practice increases the risk of contamination.

4.3.2 Food preservation

Thirty percent of chop bar keepers interviewed had refrigerators for storing their food. The 70% who did not used the following methods to preserve their food: Frying, smoking, steaming and salting

These other methods of food preservation are acceptable.

4.4 Health Education to chop bar keepers

Ninety-five percent of chop bar keepers have been visited and talked to by environmental health officers. The rest had had no visits from any health worker.

In the focus group discussions it was found that all the groups had health education from health workers who visited them either at their work places or at meetings of the Chop Bar Keepers Association.

Topics on which they have been educated include;

- cleanliness of bowls and cups
- Neatness
- hand washing
- use of hand towels
- general food hygiene and sanitation.

Nowhere was it mentioned that health education had been given on

food related diseases.

In half of the areas it was said that the environmental health officers mainly summoned people to court and gave little education. In these areas, the chop bar keepers got more of their education from their association meetings. In the other areas, the visits of the health inspectors were found to be very helpful.

In all the areas it was felt by participants that the random nature of the visits of the health inspectors kept their standards up.

It can be concluded that most of the chop bar keepers seem to be knowledgeable about food hygiene practices but need some education on food related diseases.

4.4.1. REASONS FOR POOR FOOD HYGIENE PRACTICES

In the focus group discussions, chop bar keepers were asked to give reasons for their poor practices on food hygiene. The following were given:

1. Bad attitudes of chop bar keepers (admission of own faults), e.g. Some admitted being lazy, others admitted having relaxed supervision over their assistants.
2. Bad staff discipline/attitudes e.g. laziness on the part of assistants.
3. No division of labour between assistants (Some of the assistants have not been assigned to any specific duties)
4. Chop bar keepers who did not attend association meetings lacked knowledge on food hygiene practices.
5. Food vendors from nearby villages who come to sell food in the metropolis have unhygienic practices.
6. Insufficient funds for wages, equipment, raw materials, etc for the improvement of the premises.
7. The KMA does not provide the necessary infrastructure in the city, eg. allocation of site to allow for putting up permanent structures.
8. The enforcement of the laws on food hygiene practices is too relaxed, especially, on food hawkers and vegetable grinding mill operators.

4.6 SUGGESTIONS FROM CHOP BAR KEEPERS ON WAYS OF IMPROVING FOOD HYGIENE PRACTICES.

From the focus group discussions, chop bar keepers gave the following suggestions on how to improve food hygiene practices.

CHAPTER FIVE DISCUSSION

5.1 KNOWLEDGE LEVELS ON FOOD HYGIENE AND FOOD RELATED DISEASES

5.1. association of knowledge levels with are and educational background

This study showed that knowledge levels on food hygiene are very high among chop bar keepers.

It also showed that the knowledge levels they have on food related diseases was independent of their educational levels. Their educational background also did not vary with the areas where they operated.

However, the knowledge levels on food related diseases did vary in the various areas. This variation was found to be statistically significant and therefore poses the question of why there was a variation in knowledge levels in the various areas of operation of chop bars. A possible explanation is that, prior to the study, there was an intensive health educational campaign consisting of film shows, group discussions, talks and a symposium, as a result of a cholera outbreak in the metropolis. The chop bars are concentrated in the Kejetia area, and the chop bar keepers association meetings are also held at Kejetia. This was the area where health educational activities were mainly concentrated during the outbreak. Chop Bar Keepers in other areas would have to make more efforts to attend, as it was not in their area. This could account for the difference in knowledge of food related diseases between areas.

It is therefore apparent that any health education programme particularly on food related diseases must focus on the areas with lower knowledge on this topic.

5.1.1 Personal Hygiene

On personal hygiene, almost all respondents knew that handwashing was necessary before preparing and serving food. There was only one muslim who knew the same but was not practising it for religious purposes. However, other muslims interviewed were found to be practising handwashing with soap, irrespective of their religious belief. On the assumption that there may be more muslims in the food trade who are not practising proper handwashing because of religious belief, health workers should identify this group and target them for education on the necessity to wash their hands using soap.

On food related diseases, when asked for causes for diarrhoea, only 42% of the answers given were correct. A higher percentage (85%) of chop bar keepers, knew that staff sick with diarrhoea should leave the premises, but this still needs to be improved. Health education must focus on food related diseases.

1. KMA should provide permanent sites to enable them to put up permanent structures for operation
2. KMA should help them improve their services by providing loans.
3. Establishment of co-operative schemes for the chop bar keepers to purchase items like soap, meat, cement, paint etc, to help improve their services.
4. Fufu and banku vendors who bring their food from nearby villages should be identified and educated as well by health workers.
5. The drainage system in the city centre, especially Kejetia should be improved upon or constructed and cleaned frequently by the KMA.
6. Organise chop bar assistants (dish washers, fufu pounders, and cleaners) and educate them on hygienic practices.
7. Customers must be educated on good manners and hygienic practices.
8. Something must be done about loitering and harassment by lunatics.
9. Health workers must pay attention to the unhygienic conditions of some vegetable (tomatoes, garden eggs, pepper, etc) grinding mills.
10. Health workers must be patient with chop bar keepers when a nuisance is detected for the first time.
11. A doctor should be assigned to the chop bar keepers for medical care/examination.

5.2 PRACTICES

5.2.1 Containers for fetching drinking water

Eighty-three percent of the chop bar keepers do not use drinking water containers for other purposes. Even though seventeen percent represented a small proportion of those who use the containers for other purposes it is significant for public health reasons because it can be a source of contamination. This is because the bowls/containers used for other purposes might not have been properly washed before using them to fetch water.

It is the responsibility of health workers to check these during their routine rounds and give the relevant education.

5.2.2. Storage of drinking water

Even though 61% percent of chop bar keepers use acceptable means of storage, there are still thirty-nine percent who store water in barrels and buckets. This is unacceptable because the barrels are too big and deep which makes cleaning difficult and likely to be less frequent. The buckets are also not acceptable because they can also be used for other purposes like washing dirty items which could also be a source of infection.

It is the responsibility of the health workers to check these during their routine rounds and give the relevant education.

5.2.3. Drinking Cups

The majority of the chop bar keepers (66%) did not wash their cups immediately after use, therefore one cup is being used by more than one customer, which may lead to cross contamination.

Every cup should be washed immediately after it has been used. For this to be feasible, chop bar keepers must have enough cups to ensure that clean ones can always be available.

5.2.4 Food Preservation

Though only 30% chop bar keepers had refrigerators, the knowledge and practice of all chop bar keepers on other methods of food preservation was acceptable. The methods mentioned included frying, smoking, steaming and salting.

5.2.5 Other reasons given for poor food hygiene practices

In an attempt to beautify the metropolis, the KMA has set up a task force assigned with the responsibility of demolishing unauthorised structures. Many chop bars are unauthorised and therefore likely to be demolished. This fear deters them from investing heavily in the structures and facilities resulting in shoddy structures and facilities which lower hygienic standards.

During the Focal Group Discussions the chop bar keepers

complained that they need outside financial assistance to help them upgrade their practices.

Lack of funds was identified to be one contributing factor to their poor practice.

The enforcement of the by-laws on food hygiene seem relaxed because the health workers do not get the necessary support from authorities to carry out the execution of bench warrants. (Example: payment of T&Ts so that health workers could defray the cost of transportation). This study revealed that knowledge does not necessarily go with practice therefore the enforcement of the by-laws on food hygiene should be encouraged by better support and should go hand and hand with health education.

In some areas, the respondent said health workers were impatient in issuing summons. They threatened and issue summons outright without any warnings. This negative attitude to work must not be encouraged and health workers environmental health officers in particular) need to be told of procedures for summons.

CHAPTER 6
RECOMMENDATIONS

6.1. TO 1. **HEALTH EDUCATION UNIT/MINISTRY OF HEALTH**

1. Health Education must be sustained with emphasis on food related diseases must be and should be disseminated in all areas of the metropolis.
2. Health Education messages must bring out the relationship between food, disease and its implications to the general public.
3. Health workers should identify muslims who are engaged in chop bar keeping and specifically check their hand washing practices, educating them in the necessity to use soap if they do not presently do so.
4. Mass education campaign on good manners and hygienic practice should be organize for the general public.
5. Health inspectors should not be selective in their education but extend their education to all categories of food handlers including food hawkers, vegetable grinding mill operators etc.

2. **RECOMMENDATIONS TO CHOP BAR KEEPERS**

1. Chop bar keepers should be advised to buy refrigerators if affordable.
2. The water fetching/storage container should not be used for any other purpose and should be that which can easily be cleaned.
3. An assistant should be assigned to the washing of the cups so that the cups be washed immediately after use; moreover chop bar keeper must have enough cups so that clean ones can always be available.

6.3 **RECOMMENDATIONS TO KMA**

1. KMA should provide permanent infrastructure Approved site, Drainage system, Light and encourage chop bar keepers to have stand pipes
1. The KMA must establish a mutually beneficial working relationship with the chop bar keepers association through monthly meetings and periodic discussions, this will help the association to receive any assistance needed from the KMA, for example arrangement of loans, schemes, clarification of policies etc.
1. Inservice training should be organized for all the Environmental Health Officers on code of conduct.

ANNEX

Scoring Scale

The data collection tools used were questionnaires and focus group discussions. The questionnaire contained both closed and open ended questions. The close-ended ones were the following questions 1,4,10,20 and 23 which demanded a "yes" or "no" and "don't" know" responses. Positive or yes responses had a score of one (1) and negative and don't know responses had a zero (0) score. The close ended questions were mostly fact finding questions eg availability of facilities like stand pipes, refrigerator/freezers etc.

Open ended questions

For test of knowledge, 9 of the open ended questions, 7, 9, 12, 13 14, 16, 17, 18, 19 22 were used to grade the level of knowledge on food related diseases. For the scoring, any right answer or answers given scored one mark. The total score expected was 10 marks (100%). The scores were then graded as follows:

- 0-49% Low knowledge
- 50-100% high knowledge

TEST OF ASSOCIATION BETWEEN KNOWLEDGE ON FOOD RELATED DISEASES AND LEVEL OF EDUCATION

Knowledge on Food Related Diseases

Educational level	High	Low	Total
No Formal education	33 (36)	19 (16)	52
Formal education	36 (33)	12 (15)	48
Total	69	31	100

Chi-square test
Calculation of expected frequencies

$$\frac{52 \times 69}{100} = 36 \quad \frac{52 \times 31}{100} = 16 \quad \frac{48 \times 69}{100} = 33 \quad \frac{48 \times 31}{100}$$

$$X^2 = \frac{(O-E)^2}{E}$$

$$\frac{(33 - 36)^2}{36} + \frac{(19 - 16)^2}{16} + \frac{(36 - 33)^2}{33} + \frac{(12 - 15)^2}{15}$$

= 1.57

1.57 < 3.8 therefore P > .05

Because our X² valued of 1.57 was less than the tabulated values. The P-value was greater than 0.05.

It was therefore concluded from the above that the value was not significant and the level of knowledge was not associated with level of education.

GLOSSARY

Operational Definitions

AMPESI	-	Cooked yam/plantain with meat/fish stew.
ASSISTANTS	-	Those workers employed at the chop bars whose services, include, preparation of foods, pounding fufu, washing of dishes, cleaning, serving of foods etc.
BANKU	-	Fermented cooked maize and cassava meal with soup.
CHOP BAR KEEPERS	-	Cooked food sellers in permanent structures.
EMU TUO soap	-	Cooked rice made into balls with
FOOD HYGIENE		The hygienic way of handling food from preparation to consumption that is not detrimental to health, it includes personal hygiene, handling, storage and preservation of water, cooked and uncooked food and meat.
FORMAL EDUCATION	-	In the study, we meant those people (chop bar keepers) who attended school up to either primary, middle or J.S.S.
FUFU	-	Pounded cooked cassava and plantain with soup.
GARI	-	Grounded fried cassava meal.
KENKEY	-	Fermented grounded maize meal wrapped and boiled in maize or plantain leaves.
KONKONTE	-	Dry grounded cassava meal with soup.
SUB METRO	-	One administrative area of the Metropolis divided into four areas.
TUO ZARFI	-	Grounded maize/millet meal with soup.

LIST OF ABBREVIATIONS

- C.B.K.A. - Chop Bar Keepers Association
D.H.M.T. - District Health Management Team
D.M.O.H. - District Medical Officer of Health
F.H.U. - Food Hygiene Unit.
F.R.D. - Food Related Diseases.
H.E.U. - Health Education Unit
K.M.A. - Kumasi Metropolitan Assembly.

GUIDE ON FOCUS GROUP DISCUSSION FOR CHOP BAR KEEPERS

1. Introduction
2. Have you been visited/invited by health worker or anybody to talk to you about food hygiene?
3. Which of these do you normally get information?
4. What messages do they give?
5. METHOD OF COMMUNICATION:
How do you do it?
6. PROBE: How do you want them to do it?
 - a. Timing
 - b. Venue, Why?
6. STATEMENT
We have observe that some chop bar keepers for eg.
 - a. do not wash the drinking cups after each use but wash them about 3 times a day.
 - b. do not cover the drinking water.
 - c. do not wash their hands properly with soap and water before serving food.
 - d. do not change the water the water used washing the plates frequently.
Why is it so?
7. What do you do when a customer advises you on e.g.
 - a. Exposing the food to flies
 - b. The use of the tables.
 - c. The use of the cups
 - d. Leaving the eating plates unwashed. Why?
8. Do you have any suggestions you want to make that can improve chop bar keepers practices.

Do you think the girls know about food hygiene.

STUDY ON FOOD HYGIENE IN KUMASI METROPOLIS
QUESTIONNAIRE FOR CHOP BAR KEEPERS

TEST FOR KNOWLEDGE

BACKGROUND INFORMATION

CODE NO

NAME (OWNER/CARETAKER)

AGE

SEX.....

ADDRESS OF PREMISES/HOME

.....

DATE OF INTERVIEW

NAME OF INTERVIEWER

EDUCATIONAL STATUS

1. NO FORMAL EDUCATION

2. PRIMARY.....

3. MIDDLE/J.S.S.

4. S.S.S.

5. POST S.S.S

WATER SUPPLY

1. Do you have a stand pipe in your chop bar? Yes [] No []

2. If no, where do you fetch your water?

.....

3. What is mainly used to fetch the drinking water?

- a. Pan
- b. Bucket
- c. Both
- d. Others

4. Is it used for any other purpose? Yes [] No []

5. If yes, for what other purpose?

- a. Washing
- b. Bathing
- c. Both
- d. Others

6. In what container do you store the drinking water?

7. Why should a drinking water container be covered?

FOOD STORAGE

8. How do you store your left over food/meat before using it the following day?

9. How should uncooked meat be stored?
10. Do you have a refrigerator in your chop bar? Yes [] No []

PERSONAL HYGIENE

11. What do you do after visiting the toilet whilst working in the chop bar?

12. Which other things do you do that needs hand washing?
- a. After counting money
 - b. After sweeping
 - c. After urinating
 - d. After handling raw meat
 - e. After handling charcoal
 - f. Before serving food
13. Why do you wash your hands after these activities?

14. What items are necessary for washing hands?
-
-
15. How often do you wash the drinking cups.
-
-

FOOD RELATED DISEASES

16. How does one get diarrhoea?
-
17. If one of your workers get diarrhoea, what will you do?
-
-
18. If one of your workers get diarrhoea whilst working, can she contaminate the food/water she is serving?
- Yes No Don't know
19. If yes how?
-
20. Have you ever heard of O.R.S.?
- Yes No
21. If yes, from where?
-
22. What is it used for?
-
-
23. Have you had anybody talking to you about food hygiene?
- Yes No
24. If yes, who?
-



**AN INVESTIGATION OF THE
ACCEPTABILITY OF MEASLES
IMMUNISATION IN
SELECTED COMMUNITIES IN
THE KUMASI DISTRICT**



RESEARCH TEAM
FRANCES ROUSE
RITA DE GRAFT



CONTENTS

SUMMARY.....

1. INTRODUCTION.....

2. AIM OF STUDY.....

 2.1 Objectives of the study.

3. RESEARCH METHODOLOGY.....

 3.1 Choice of method.

 3.2 Sample communities.

 3.3 Methods used.

 3.4 Research timetable.

 3.5 Problems encountered.

4. PRESENTATION OF FINDINGS.....

5. THE FINDINGS.....

 5.1 Case studies.

 5.2 Recurring themes.

 5.3 Reasons for non-immunisation against
 measles and measles immunisation patterns
 in families.

 5.4 Measles occurring twice and post-immunisation.

 5.5 Nurse/TBA perceptions of obstacles to
 measles immunisation.

6. DISCUSSION OF FINDINGS.....

 6.1 Perceptions of measles and knowledge
 of immunisation.

 6.2 Attitudes towards characteristics of
 measles immunisation.

 6.3 Methods of promoting measles immunisation.

 6.4 Attitudes towards health services and
 health providers.

7. CONCLUSIONS AND RECOMMENDATIONS.....

7.1 Implications for health education.

7.2 Implications for future research.

Appendix One. Reasons given for non-immunisation of children.
(UNICEF, 1988)

References.

SUMMARY

Uptake of measles immunisation in the Kumasi District has not exceeded 75% since the inception of the Expanded Programme of Immunisation (EPI). Coverage of the target population (0-11mths) had only reached 33% in the first half of 1992 despite the vaccine being readily available. Factors influencing the acceptability of the immunisation in the community were investigated by household discussion and key informant interviews.

Misconceptions about immunisation, fear of, and treatment by health personnel, beliefs about the nature of the disease, experience of children contracting measles after immunisation, money, time and distance to immunisation sites were found to be major influences on uptake. Various other factors were also identified. Recommendations are made based on these findings for health education and for future research.

1. INTRODUCTION

The recent outbreak of measles in the Kumasi district started in October, 1991 and continued into the first half of 1992. The majority of the cases (60%) occurred in children over five years of age, only 30% were in the age range in which immunisation is given under the EPI. There has been an EPI in the Kumasi district since 1985. It is suggested that some of the children over five who were affected are those who missed out in the earlier years of the immunisation programme. Measles was also the fourth highest cause of mortality and morbidity in outpatient departments in the metropolis at this time. (D.M.O. Report, June 1992.)

Coverage for measles immunisation of the target population (0-11mths) in the district has never exceeded 75%. Coverage was reported as 52% in 1989, 74% in 1990 and 61% in 1991. (D.M.O. Report, 1991) It is estimated that rates of 90-95% are needed to eradicate the disease. Coverage in the first six months of 1992 was particularly low (33%) which in part is due to the fact that the nurses were on strike for 6 out of the 26 weeks of the half year.

Vaccine supply is in itself often a contributory factor in low rates of immunisation. There is an adequate supply available in the metropolis. A previous review of the EPI examined the logistics involved in running a successful programme and various recommendations from it have been followed up. Logistical factors cannot therefore account for the low immunisation rate.

A number of studies have been carried out in the Ashanti Region, by students at the School of Medical Sciences (SMS), into knowledge, attitudes and practices concerning measles and also the EPI and the problems facing mothers participating in it. (Ahafia 1989, Baah 1988.) These studies identified a number of beliefs about measles which at first sight would seem to indicate that it is thought to be a serious disease. In several of the studies the mothers thought that the rash and desquamation began in the gastro-intestinal tract before manifesting on the skin. They believed that infected children should not be bathed or given water as the rash would return to the gastro-intestinal tract and cause the death of the child. However a KAP study on immunisation carried out by UNICEF (1988) found that measles was the most widely known vaccine preventable disease but that most mothers regarded measles as relatively harmless. This study also identified a number of factors accounting for non-immunisation of children, these are listed in Appendix One.

Perceptions of seriousness, susceptibility (which is assumed to be high given the recent outbreak), causation, prevention and treatment will influence acceptability of the measles immunisation. This study seeks to investigate these and other factors which may be influencing the uptake of measles immunisation. Recommendations are made based on the findings for health education promoting the uptake of measles immunisation.

2. AIM OF THE STUDY

To assess the acceptability of the measles immunisation in selected communities of the Kumasi district.

2.1 OBJECTIVES OF THE STUDY

1. To investigate community perceptions of; susceptibility, seriousness, causation, transmission, treatment and prevention with regard to measles.
2. To find out what is known in the community about the measles immunisation.
3. To assess attitudes in the community towards characteristics of measles immunisation, in particular, safety, effectiveness, accessibility and cost.
4. To find out what the community thinks about methods of promotion of measles immunisation.
5. To find out where members of the communities obtain advice on health matters and in particular regarding measles.
6. To assess attitudes in the community towards health services and health providers with regard to measles.

3. RESEARCH METHODOLOGY

3.1 CHOICE OF METHOD

It was decided that qualitative research techniques would be most appropriate to investigate the acceptability of measles immunisation in the community as it was envisaged that a number of the issues emerging in this study would be sensitive and complex. A number of ideas were put forward in preliminary discussions which it was felt might be influencing immunisation uptake.

These included no suitable cloth to wear to the immunisation centre, ignorance of the centre or immunisation schedules, discourteous treatment by health staff, previous negative experiences of the EPI and other or older children seen to get the disease after vaccination. Many of these issues are complex and would require discussion to find out to what extent they may influence a decision to take a child for immunisation or not. It was felt that informal and open discussion would be most appropriate to reveal the complexities of such decision-making.

It was also felt that there would be a variety of other issues and reasons which would be influencing measles immunisation uptake which the researchers could only initially guess at. In particular beliefs about causation, susceptibility and seriousness of the disease needed to be investigated. It was felt that qualitative techniques would be more likely to reveal in detail these beliefs. Other studies have also cited the appropriateness of qualitative methods for such research. (Lafond, 1991)

Two methods were selected which would enable some crosschecking and validation of information obtained, and which could be utilised effectively in the time available to the researchers. The methods selected were key-informant interviews and household discussions.

3.2 SAMPLE COMMUNITIES.

Two communities were selected from the Kumasi Metropolis. They were selected because it was suggested that they had comparatively low immunisation coverage for measles and in the case of Parkoso because it is remote and has no outreach service in the community.

3.2a. Parkoso.

This is a small community of approximately 1,500-1,800 people on the outskirts of the metropolis. (There were 72 households in the village and it was estimated that on average each household contained 20-25 people.) The majority of the population are farmers, a few people have jobs in Kumasi. The community is reliant on the local stream as a source of water. The MOH has distributed filters in the village because of guineaworm. There is one church in the community.

There is no outreach service or health clinic in the village. The nearest outreach clinic is that of Sepe-Tinpom which is a distance of two and a half miles away. The Manhya Health Centre and UST hospital are the nearest government health facilities. A journey by trotro to either of these facilities would cost about 200 cedis. The health needs of the population are served by the TBA who is currently undergoing training provided by the Ministry of Health to improve and upgrade their skills. There are also a number of herbalists and fetish priests/priestesses in the village. Fetish priests/priestesses are consulted for particular health problems such as convulsions in children.

3.2b. Duase.

This is a slightly larger community in the Manhya submetro. The population is estimated to be in the region of 2,200 people. (There are seventy four households in the community, most of which are larger than those in Parkoso and in which it was estimated an average of thirty people might be living.) The community has one borehole and also uses the local stream as a water source. There is also a KVIP in the village but it was acknowledged that a lot of people did not use it.

The community has a local Primary School and a Kindergarten. It also has a small market where small food items and palm wine are on sale. The majority of the community are farmers but some people work in Kumasi as the community is well served by trotro and taxis to central Kumasi. the fare is 50 cedis each way and it is a journey of 15-20 minutes

This community has a monthly outreach service as well as a trained TBA. The outreach service on average has about 25-30 mothers attending any one session. The nurses who run the service said they had not seen any measles cases in the last three months. There is also a drug store in the village which is open in the evenings selling medicines such as paracetamol, calamine lotion and so forth. The village also has a number of herbalists. The nearest health centre is Manhyia, a ten to fifteen minute journey once transport is available.

3.3 METHODS USED.

3.3a Key-informant interviews.

A. Initially it was necessary to approach the chief in each community to seek permission to explain the purpose of our research and to seek permission to carry it out in the community. It was also possible at the same time to discuss his perceptions of the health problems facing the communities and obtain an overview of the incidence/prevalence of measles and what local beliefs with regard to measles might be.

B. Each community had a TBA. A discussion was held with each of these ladies as to the incidence/prevalence of measles, perceptions about seriousness, causation, treatment, prevention and susceptibility, attitudes to immunisation, rates of immunisation and provision of health services.

C. The nurses who ran the outreach service in Duase were also consulted. This allowed us access to immunisation records. The topic of measles and immunisation was discussed in detail with the nurses to find out their perceptions of the issues involved.

D. Two nurses called in to Parkoso as part of the TBA training programme one day when we were also in the village. These ladies also were able to provide useful local information based on their experiences and perceptions.

3.3b House-hold interview/discussions.

The compound style of typical Ashanti houses lends itself to this type of research. At any one time there will usually be a group of people in the internal courtyard of the house cooking, washing or carrying out some other household task. In all of the households visited whilst carrying out the research there were never less than three adults or more than ten in the courtyard at any one time.

It was therefore possible to talk to a wide range of people. Some groups included grandmothers, mothers in their thirties and younger mothers. A number of men also took part in the discussions and several discussions with groups of men only were also carried out. The mixed age groups proved very informative as it was possible to discuss changes in attitudes and perceptions over two or three generations and discuss what could account for these changes. Initially there had been some concern that people would not feel free to talk or express a different opinion in the presence of their elders which was felt to be an advantage of focus groups where for example mothers of a similar age could be grouped together. This did not prove to be the case and it was felt that such an arrangement stimulated and enhanced the discussion.

An interview schedule was devised to outline the main ideas which were being investigated and to trigger discussion. The purpose of the schedule was simply to identify key areas in the researchers mind, it was not rigidly adhered to or in sight during the discussion process. Obviously it was also necessary to ask if people were willing to talk to us, what it was that we were doing and to thank them for their cooperation as appropriate.

The interview schedule suggested the following;

Have you heard of measles?

What is measles?

Have any of your children had measles? (By the way how many children do you have?) Or do you know of any of the neighbouring children who have had measles?

What did the measles look like? (Do you know what measles looks like?)

How old were your children when they had the measles?

What do you think/did you think caused the measles?

What did you do? (How did you treat your child?)

How could you have prevented your child from getting the measles? (May have suggestions other than immunisation)

Have you heard of measles immunisation?

Can you describe what measles does for your child?

Where did you hear about measles immunisation?

Do you have enough information about immunisation and in particular measles immunisation or are there things you would like to ask us?

When should measles immunisation be given to a child?

Have you had your children immunised? (Where, cost, accessibility.)

What happened? (Any side effects, information given by health staff, treatment, by health personnel.)

What kind of health services would you like to see in your community both for yourself and your children?

Would you have another child immunised against measles or recommend measles immunisation to a friend?

Why do you think it is that some mothers do not take their children for immunisation?

3.5b. Mothers less than twenty years of age.

Young mothers, in particular those less than twenty years of age were noticeably often reluctant to join in the discussions. It was necessary to make a particular effort to make these persons feel at ease or to talk to them individually or in small groups. This group of mothers very often had children who had not been taken for immunisation and in some cases were clearly uncomfortable when admitting this.

3.5c. Deciding on an appropriate number of households to visit. Initially no decision was made as to the number of households that were to be visited because of the time each visit might take and also because it was not possible to be sure what information would be revealed. It transpired that after eight to ten visits in each of the communities very similar information was often being given, for example measles was said to be a naturally occurring disease with no particular causation in at least eighty percent of households visited. (Exceptionally older people thought measles was caused by dirt and poor hygiene.)

In total, slightly more than one fifth of all households were visited and this was thought to provide a reasonably comprehensive view of the acceptability of the measles immunisation in these communities. It is stressed that it was not the aim of this research to provide quantitative data about actual rates of immunisation or the incidence/prevalence of measles. However where it was reported that measles had occurred twice or after immunisation this was recorded and figures are given. (See section 5.4.)

4. PRESENTATION OF FINDINGS

The information and ideas revealed by this study are presented as follows;

4.1 Information from key-informant interviews.

Information obtained from interviews with TBA's, chiefs and nurses is used to verify and cross check information obtained in household discussions. A summary is also given of the obstacles to measles immunisation suggested by these persons. (Section 5.5) The information obtained has also been used to provide a background to the community in which the research was carried out.

4.2 Household discussions.

This information is presented in four ways;

4.2a. Four anecdotal case studies are presented which were the result of discussion with individuals in particular households. These four case studies have been selected to illustrate and illuminate some of the factors and issues which were felt to effect uptake of measles immunisation. They also highlight particular themes related to beliefs about measles, attitudes to immunisation and perceptions of the immunisation service which recurred in what was deemed a significant number of the household discussions which were held.

At some point in the discussion if individuals were discussing their own children and if it seemed appropriate their immunisation cards could be asked for. Otherwise this was only felt to be appropriate at the end of the discussion in order not to appear to be checking up on people or to make them feel ill at ease. If particularly interesting personal histories were being discussed the age and educational background of the person were also asked for.

It was also decided to record the information obtained on the spot at the end of a group discussion. The discussions were carried out in Twi by a health education assistant who is a trained nurse. She translated the responses into English so that in essence a three way discussion was being carried out. This caused some amusement and did not seem to inhibit discussion. It also allowed us to discuss what we recorded and in this way respondents could be assured that their views were not being misrepresented.

In total one fifth of households were visited in Duase (17) whilst a quarter of households were visited in Parkoso (18) On average 40 minutes was spent in each household, although this varied and two hours were spent in particular households.

3.4 RESEARCH TIMETABLE

The research was carried out in the two week period from the 19th to the 30th of October. The communities were visited prior to these dates to meet with their respective chiefs and the TBA's. The communities were visited as follows;

Monday 19th.	Duase
Tuesday 20th.	Duase
Wednesday 21st.	Duase
Thursday 22nd.	Parkoso
Friday 23rd.	Parkoso

Monday 26th.	Duase
Tuesday 27th.	Parkoso
Wednesday 28th.	Parkoso
Thursday 29th.	Parkoso

3.5 PROBLEMS ENCOUNTERED

3.5a. Timing of visits to households.

Visits to households were made in both of the communities at different times of day because it was found that at certain times such as mid-morning most people had left to carry out farming or trading activities. The afternoon from two o'clock onwards proved to be the best time for finding large groups of people available for discussion.

4.2b. There were also a number of recurring themes/ideas which provide information relating in particular to;

1. Community perceptions of measles.
2. Knowledge of measles immunisation.
3. Attitudes towards characteristics of measles immunisation.
4. Methods of immunisation promotion.
5. Sources of health advice.
6. Attitudes towards health services and health providers.

Each of these six categories is considered in turn.

4.2c. A list of reasons for non-immunisation against measles was compiled. All of the reasons reported whilst the research was carried out are reported. A number of immunisation patterns within families and the reasons accounting for them have also been constructed.

4.2d. Figures are given for the number of times that it was reported measles had occurred twice and that measles had occurred after immunisation.

5. THE FINDINGS

5.1 CASE STUDIES.

CASE STUDY ONE

Mrs A. is thirty two years old with four children. The eldest is thirteen and the youngest is two. We spoke to Mrs A with three of her friends and two of their mothers.

Mrs A. had taken three of her children for measles immunisation. She hadn't taken her third born child because she had this child in her home village which did not have a MCH facility nearby. When she returned she was told the child was too old for immunisation anyway. This child had contracted measles at two years of age and had been very sick. Mrs A. didn't attribute measles to any particular cause as she said it was a natural, common childhood disease. She had treated her child at first with nyamedura, a local herb given as an enema. This she said brought out the rash from the child's body onto the skin. At this point she had then taken the child to the clinic for further treatment. None of her other children had measles.

Mrs A. said immunisation would protect your child from disease and make it strong. If the disease did strike after immunisation it could only do so mildly. Mrs A. has a pronounced goitre which she said she had developed during her third pregnancy six years ago. She had only once been asked by a nurse about the goitre and she had no idea if or how it could be treated. She said she thought it would cost a lot of money.

We also asked Mrs A. and the other ladies present why it is that some mothers do not take their children for immunisation. They suggested that a lack of money, no suitable cloth to wear and sheer laziness might account for this. Mrs A. also said she had a sister who believed that immunisation would actually cause the disease in the child. These ladies also said that sometimes food supplements are given at the clinics and that when these are withdrawn or become unavailable this discourages mothers from attending.

They concluded that yes it did require a concerted effort to walk to or go to the MCH clinic but that this was outweighed by the benefit to the child and to the mother if your child was healthy you would have more time to do other things and you would also have peace of mind.

CASE STUDY TWO

Mrs B. is thirty five years old with four children, the oldest is fourteen and the youngest is three. She was sitting in her compound having her hair done at the time of our visit. Her children, the hairdresser's baby and a few other children were playing on a mat spread out under a tree.

Mrs B. told us she hadn't always lived in Parkoso. She had her three eldest children in another part of Kumasi which was very close to a MCH clinic. She said she had taken her three eldest children to the clinic for immunisation and weighing. She couldn't tell us immediately when the children had their measles immunisation, although after awhile she said she thought it was around six months.

The two eldest children had both had measles, the second having it badly. Mrs B. was able to describe accurately the signs and symptoms the children had. She suggested that she might not have taken the second child for measles immunisation because she had definitely taken the first child and felt very discouraged when it got measles despite being immunised.

Mrs B. also told us she had a bad experience at the MCH clinic which had further discouraged her from attending. She had gone early to the clinic and been waiting for a long time. A smartly dressed lady had arrived with her child in a pushchair. This lady was seen to immediately. Mrs B. complained to the nurse who got very angry and threw her card away. A sister of Mrs B. who was also present managed to dissuade her from leaving there and then as she said she would be depriving her child of the benefit of the visit. This experience alienated Mrs B. who went on to say that she thought the nurses were much more interested in smart well-dressed mothers and not those such as herself who could not possibly afford to dress up.

Her last child had been born in Parkoso and she had not taken him to the MCH clinic at all. She said this was because of the time and distance involved, money and because of her previous experiences.

Her hairdresser who was nineteen had a very small and beautiful four month old daughter. She had not been taken to the MCH clinic either. At first when we asked this lady why she hadn't taken the baby as yet to the clinic, she became very shy and just laughed. Later in the discussion she told us that she was afraid of being scorned by the nurses for not going earlier and that in any case she felt intimidated by the nurses. She said after her baby had been born, she herself was not well and had been unsure of what to do. She had waited for a few days before discussing her problem with some friends and neighbours. They had told her that the nurses would be cross with her because she hadn't gone straight away. She was put off going and said her problem had got better after a couple of weeks.

CASE STUDY THREE

Mrs C. has five children. None of her children have had any immunisations. Mrs C. had her children at home with the help of neighbours. Mrs C. said she saw no reason to have her children immunised as they were all healthy and did not need immunisation. She said immunisation was something for sickly or weak children to make them strong.

She said two of her children had measles mildly which she treated with local herbs. This just illustrated that healthy children didn't need the help of immunisation. If any of the children were sick she would ask a neighbour for advice about appropriate herbal treatment. She knew there was an outreach service available every month but said that even if she had another child she could not see the point in taking it for immunisation.

CASE STUDY FOUR

Mrs D. is thirty years old. She has six children, the eldest daughter is fourteen and the youngest three months old.

Mrs D. had not taken any of her children for weighing and immunisation until she had her latest baby. She had been taking the baby to the outreach service in the village. She said she had no idea until she had this baby, who was delivered by the local TBA that she could or should take her children to the MCH clinic. The TBA had advised her to do this.

Mrs D. could not tell us what immunisation does or how it benefits the child. She did not know what immunisations her baby had, but she could show us the sites of the injections. Mrs D. told us that four of her six children had measles which had been treated with local herbs. She also said her eldest daughter had a baby at thirteen and that the baby had died of measles. Mrs D. called her daughter to come and speak with us.

Her daughter told us that she had her baby in the village and that she had been taking her to the outreach clinic. At five months the baby developed a fever and became very quiet. She had no idea what was wrong and took the baby to Manhya where they told her the baby had measles. The baby was admitted and died a week later. The daughter did not know that it was possible to immunise against measles (even though sadly her baby was too young). She had not been given any information about measles immunisation that she could remember either before or during her babies illness.

5.2 RECURRING THEMES

5.2a. Community perceptions of measles. (Nytenkyem)

There was a high level of perceived susceptibility to measles in both communities. However this meant that measles was most often viewed as a mild and common childhood disease. One mother suggested that;

"It is a rule that every child will get it once in a lifetime."

It was only in households where a child had died or been seriously ill with measles that it was viewed seriously. Knowledge of the signs and symptoms of measles was particularly high, most people mentioned fever, red eyes, sore mouth, rash and diarrhoea as common symptoms.

No particular causation was attributed to measles with the exception of some grandmothers and older ladies who said dirt and poor hygiene caused measles, some people who said it was caused by heat and one lady who attributed it to stopping breastfeeding. The older ladies spoken to suggested that improvements in domestic and personal hygiene in their lifetimes had in part led to a decrease in the number of measles fatalities. Most people reported that the incidence of measles was noticeably higher in the dry season. The transmission of measles was associated with proximity to children who had measles or use of their plates, bath sponges and other personal items.

The treatment that was given in nearly all households for measles involved the use of nyamedura (also known as sinuro), a local herbal treatment from the Alstonia boonèi tree. The bark is ground and mixed with water. This is administered in three ways; 1. Enema. This is believed to bring the rash out from the stomach of the child onto the outside of the body: It is believed to be potentially fatal for the rash to stay inside the body. The role of the nyamedura is simply to bring out the rash and not to cure the measles, although bringing out the rash is seen as essential to effecting a cure. Constipation is also thought to keep the rash inside the body.

2. It is sometimes given as a drink, but this was reported as much less common than the giving of an enema.

3. The least commonly reported practice was the use of nymadura as a paste which is applied to the skin.

Another herb was also reported in several households, nyanya, this was also given as an enema or as a drink.

Other reported treatments included the giving of peppersoup or fish and pepper sauce which was believed to bring out any infection or rash from the top end of the digestive system, the drinking of vinegar for similar purposes and the application of akpeteshie to the measles rash. There was no reporting of withholding food during the illness except in so far as a sore mouth makes eating difficult and the child itself having little appetite. Apart from these remedies treatment was otherwise sought from health centres, or clinics.

5.2b. Knowledge about measles immunisation.

Everybody who participated in the study had heard of measles immunisation. Most people described measles immunisation as something that prevented a disease and as something that would make your child strong. Other benefits of immunisation that were mentioned included allowing the mother time to do other things as she would not be spending time looking after a sick child and it would give her peace of mind. It was also said on numerous occasions that if your child contracted measles after it had been immunised it would only do so mildly. Most mothers reported that they had been told this by nurses. It was also said that one benefit of attending child welfare clinics was that sometimes you were given food supplements, this could also act as a disincentive if these were withdrawn or became unavailable. One woman also described immunisation as akin to putting a fence around a tree to stop cattle getting in to spoil it.

Very few people who participated in this study had any idea of when measles immunisation should be given to a child. Of all the people who were spoken to during the course of this research only five were able to tell us that measles immunisation is given at nine months. There was no significant difference in response if a person was asked what a baby should be doing at the age of immunisation (crawling) rather than being asked to give an age.

5.2c. Attitudes towards characteristics of measles immunisation.

This area was in many ways the most difficult to assess accurately. In one community most mothers said their children had been immunised against measles even though they could not tell us when this had been carried out and most were not able to show us cards supporting their claims. The nurses consulted about this community reported low rates of measles immunisation uptake. In a good month three immunisations might be given, but sometimes none would be given.

A number of mothers reported side-effects which were thought to have more likely occurred during earlier immunisations such as BCG and DPT where swelling and fever are more common reactions. In some instances this was reported to have discouraged the mother from persevering with further immunisations;

"Your child will be worrying you all night, you cannot sleep well and you will not go back for any more injections because it doesn't allow you to rest well."

A number of mothers were also encountered who had young babies which had swellings from their BCG injections, these mothers were asking for advice on how to treat their babies. None had been warned to expect such a reaction.

There were no reports of any abscesses as a result of immunisation. However a number of fears and misconceptions as to the effects of injections were expressed. Injection provoked polio paralysis in particular was mentioned, too many injections were said to be bad for a child on several occasions and on two occasions it was reported that a child had died whilst being injected.

Mothers in both communities reported dissatisfaction with accessibility to services. Those in Duase said that it was unfortunate that the outreach service was only available once a month and in any case it was no good if your child was sick as you still had to take it to Manhyia or elsewhere for treatment. A number of mothers cited fares and charges as big deterrents to seeking treatment. Mothers in Parkoso had a walk of two and a half miles to Sepe-Tinpom or a trotro to the nearest health centre. Most reported that going to the clinic or health centre was easier because it was cool in the early morning, transport was more often available at this time, but that coming back in the afternoon sun after you had waited a long time at the clinic anyway often deterred them from going.

5.2d. Methods of measles/immunisation promotion.

The two communities in which this research was carried out were told of immunisation services in advance and on the day of their arrival in the community. This usually took the form of a public address from an MOH or Information Services Department (ISD) vehicle. The TBA's in the communities also reminded people on a house to house basis and a gong-gong would be beaten to announce the arrival of an outreach team.

A desire for more information and discussion of immunisation and childhood diseases was expressed in many of the households who said they welcomed our visit as it allowed them to ask us questions and discuss relevant issues.

5.2e. Sources of health advice.

The mothers spoken to in this study fell into three categories initially when asked about their sources of health advice. Obviously this also depended on the nature and stage of the illness and if there was money available in a household to seek official treatment. The categories were as follows;

1. Peer group. (Friends and neighbours)
2. Their own mothers/grandmothers.
3. Official health facilities

It was most common amongst the mothers who participated in this study to seek advice initially either from friends or relatives. This would usually involve the giving of herbal medicines or other local treatments, these people would also be influential in deciding if the patient should be taken to a clinic or health centre. It was noticeable that younger (20-25yrs) educated mothers tended if possible to go straight to an official health facility.

It was reported that fetish priests/priestesses were consulted for particular problems such as convulsions and twitching. Some mothers also reported consulting the TBA about childhood illnesses but this was not common.

5.2f. Attitudes towards health services and health providers.

These were found to be variable and directly related to personal experience as illustrated by the case studies presented here. Younger mothers (under 20 yrs) in particular were intimidated at the prospect of going to a clinic or to see a nurse for several reasons;

- a. Supposed authoritarian attitude of the nurses.
- b. Age of the nurses.
- c. Lack of money for what is deemed to be suitable attire to wear to a clinic.
- d. Fear of being told off for not coming to the clinic at forty days or for having delivered at home.

There was a general consensus among those who took part in this study that they were regarded as inferior by health staff because of their occupations, places of residence and attire.

5.3 REASONS FOR NON-IMMUNISATION AGAINST MEASLES AND MEASLES OCCURRING TWICE

5.3a. REASONS GIVEN FOR NON-IMMUNISATION AGAINST MEASLES.

1. Lack of money.
2. No suitable cloth to wear to immunisation centre.
3. No time to take child.
4. Distance to immunisation site is too great.
5. Fear of giving child too many injections.
6. Fear that immunisation/injection will give child disease.
7. Ignorance of existence of weighing/immunisation service.
8. Can't see point or benefit to child of immunisation.
9. All my children are healthy, why do they need immunisation?
10. Absence from village or community for birth and first year of child's life.
11. Sheer laziness.
12. Child too old.
13. Most children have measles mildly, it is not a serious disease.
14. Fear of health personnel. (Being disgraced for not attending clinic earlier, for having delivered at home and for losing card between DPT and measles immunisation.
15. Immunisation seen as something for sick or weak children only to make them strong.
16. Side-effects of immunisation seen in older/relatives children.
17. Belief that measles immunisation suppresses the measles rash inside the body, said to occur when measles occurs mildly post immunisation.
18. No knowledge of when measles immunisation should be given.
19. Hearing of stories such as a child going for immunisation and dying as soon as the needle entered its body.
20. Fear of injection provoked polio paralysis.
21. Feeling that child welfare only offers advice about nutrition which mothers cannot afford to follow anyway.

22. Not informed of need to come back for further immunisation.

23. Discouraged because older child had measles despite being immunised.

24. Child had measles before reaching age of nine months.

5.3b. MEASLES IMMUNISATION PATTERNS IN FAMILIES

1. All children were said to be immunised against measles. (Some cases of mild measles were reported to have occurred in some of the children despite immunisation.)

2. Elder children not immunised. One child contracted serious measles and all subsequent children were then taken for immunisation.

3. No children immunised. (Lack of money, no perceived benefit to immunisation, lack of knowledge about immunisation, fear of health services and so forth.)

4. Older children immunised. One child missed immunisation because it was born somewhere else such as the mothers home village. All subsequent children immunised.

5. Eldest child immunised. Subsequent children not immunised. (Financial constraints, treatment from health staff, measles occurred in immunised child anyway.)

6. Elder children not immunised. Last born child immunised because mother now has access to outreach service.

7. Children receiving earlier immunisations such as BCG and DPT. (Mother has no idea that measles should be given at nine months or thought that the child had finished with immunisation and or lost their record card anyway.)

5.4 MEASLES OCCURRING TWICE AND POST IMMUNISATION

5.4a. Measles occurring post immunisation.

In nearly every household visited there were reports of cases of children who had contracted measles despite being immunised. In some cases it was possible to see the immunisation cards to verify that the child had been immunised. Where it was not possible to see an immunisation card, mothers were asked to describe the symptoms that particular child had. It was reported in a number of cases that the rash had not really come out and mothers attributed this to the protective power of the immunisation saying that because the child had been immunised the measles could only occur mildly. It was not the aim of this research to provide quantitative data as to the incidence/prevalence of measles either prior to or after immunisation. However as the research progressed it became apparent that in the majority of households it was being reported that measles was occurring despite children being immunised, for this reason the number of times this was reported as occurring is given. In total measles was reported to have occurred in a child after immunisation in twenty eight of the thirty five households visited. It should be noted that in each household discussion held five to six different families might have been represented. This figure in no way accurately represents the supposed occurrence of measles post immunisation, it can only indicate that in some cases this may be occurring.

5.4b. Measles occurring twice.

There were two reported cases of measles occurring twice in the households visited. One of these cases was reported to have been taken to a Health Centre and diagnosed there as measles on two separate occasions. This child had measles immunisation at nine months, this was verifiable from the immunisation card. The child's mother said her son had measles at age two and at two years and nine months.

The second child who was reported to have had measles twice had not had any immunisations. The mother could accurately describe the symptoms the child had. The child was said to have had measles at two years and four years respectively. The mother said on the second occasion she had taken the child to the health centre where measles had been diagnosed. The first time the measles had not been so serious so she had treated the child at home. The mother said that when she had taken the child for treatment the second time she had been given advice about personal/domestic hygiene and been told off by the nurses for not caring for her child properly.

5.5 NURSE/TBA PERCEPTIONS OF OBSTACLES TO ACCEPTANCE OF MEASLES IMMUNISATION

THE TYPE OF MOTHER WHO HAS HER CHILDREN IMMUNISED AGAINST MEASLES.	THE TYPE OF MOTHER WHO DOES NOT HAVE HER CHILD IMMUNISED AGAINST MEASLES.
<p>Educated.</p> <p>Mother has had experience of serious measles in one of her children.</p> <p>Mother who has money.</p> <p>Mother who cares about her children.</p>	<p>Illiterate.</p> <p>Lazy.</p> <p>Mother hasn't any money.</p> <p>Mother doesn't understand benefits of immunisation.</p> <p>Uneducated.</p>

6. DISCUSSION OF FINDINGS.

6.1 PERCEPTIONS OF MEASLES AND KNOWLEDGE OF IMMUNISATION

Measles is seen as a common childhood disease. It is suggested that amongst the mothers in this study it was most commonly viewed as a mild disease. It was only where a family had direct experience of a serious case of measles that it was viewed as a serious disease. If a disease is thought to be common as well as dangerous the motivation to protect a child is likely to be greater. Thus whilst perceived susceptibility is high, the disease itself may not be viewed as dangerous and this probably discourages seeking immunisation.

This in part is compounded and exacerbated by the traditional belief that it is the rash inside the body in the early stages of the disease which is potentially fatal rather than the later impact of the disease on nutritional status or other serious complications which may occur. This also mitigates the suggestion that as no particular causation can be attributed to the disease, mothers might be more likely to perceive that immunisation is necessary to protect against it.

There was a high awareness of the symptoms of measles in the communities who took part in this research, however it is suggested that it is possible that people were mistaking what was deemed as 'mild measles for german measles or other infections which might cause diarrhoea, fever and sore eyes for example. This could account for the reported high incidence of measles (almost everyone that was spoken to had or knew a child who had measles). Unfortunately this again reinforces the perception that measles is most often a mild disease and one that it is not necessary to prevent. A number of elderly people who were spoken to in this study, said in their lifetimes they had seen a decrease in the number of serious cases of measles ("formerly it was killing our children") and that the disease is no longer serious and can be treated. These perceptions may also have a negative impact on motivation to seek immunisation although most of this group of people attributed the change directly to immunisation.

Everyone who participated in the study was aware that measles immunisation existed, however very few people had any idea at what age the immunisation should be given, although some said they could check on their cards. This is something that must be addressed through health education. The most common perception of the benefits of immunisation was that it made your child strong. Conversely there was a belief expressed by a number of mothers that strong children did not require immunisation. It may therefore be appropriate to promote immunisation not only as something that makes your child strong but as something that also benefits the mother as this was the second most commonly expressed benefit of immunisation, that a mother would have time to do other things and be free from worry if her child was not sick.

6.2 ATTITUDES TOWARDS CHARACTERISTICS OF MEASLES IMMUNISATION

There were a number of fears and misconceptions expressed as to the effects of immunisations, both measles and otherwise. These were very often a result of direct experience. Mothers had learnt through their own experience that side-effects such as fever and swelling of the immunisation site do not cause harm to their children. However a number of mothers were encountered in the course of this research who were undergoing this experience for a first time and were very worried and ill informed as to their best course of action. Mothers had not been warned to expect such side-effects. The main worry however seemed to centre around the inconvenience to the mother and loss of time rather than fear of permanent physical damage to the child. A number of mothers did however express a fear of injection provoked polio paralysis which presumably they had seen occur in children. This would obviously discourage seeking immunisation.

There was also dissatisfaction expressed with the availability of immunisation services. The time, distance and money involved in physically getting to immunisation centres were often cited as obstacles to seeking immunisation. This combined with discourteous treatment by health staff, long waiting times once the centre had been reached and a long hot journey home in the afternoon sun accounted for the majority of non-attendance for immunisation.

A number of other factors were identified which in particular were affecting uptake of measles immunisation. Negative experiences with earlier immunisations were in particular important. This included side-effects of the BCG and DPT as well as treatment by health staff. Most mothers were unaware of when they should take their children for measles immunisation. The nurses who were spoken to attributed this to the fact the mothers were illiterate or uneducated and that yes they were told but they didn't remember which in some cases may well be accurate. It is suggested also this may in part be due to the lack of individual and appropriate communication with mothers. If a mother is late at the clinic and misses the talk at the beginning she will miss out on vital information. Nurses on the other hand may feel overwhelmed by sheer numbers of mothers and unable to offer any individual advice.

A further major obstacle to seeking measles immunisation must be the high perceived incidence of measles occurring despite immunisation. As suggested earlier this in part may be accounted for by inaccurate diagnosis of measles. It is also possible that the cold chain itself may be breaking down at critical points or that immunity from the mother may be interfering with the efficacy of the vaccine. In any case further investigation of the reported occurrence of measles post immunisation may well be warranted.

In part the impact of this may be mitigated by the common perception that measles occurring after the child has been immunised is usually not serious. This is however complicated further by the notion that in such mild cases of measles where the rash "doesn't really come out" that the immunisation is responsible for this. This directly conflicts with the traditional belief that getting the rash out of the body is crucial, a number of grandmothers in particular were encountered who had dissuaded their daughters from further immunisation for their children as this had occurred. There were also several mothers encountered in the course of this study who reported that their children had been seriously ill with measles after immunisation and this had discouraged them from seeking further immunisations for younger children.

6.3 METHODS OF PROMOTING MEASLES IMMUNISATION

There was a definite desire expressed by members of the communities for more information about immunisation generally. People welcomed our visits as it gave them the opportunity to discuss and ask questions, a need which did not seem to be being met in a formal health care situation. The communities were both well informed as to the availability of services. Public address announcements were made advertising visits by outreach teams. There had been a visit to Parkoso in the weeks leading up to this study as part of a special EPI mini-campaign. Despite the publicity given to the services, uptake is still low and this perhaps highlights the need to concentrate on motivation rather than mobilization. One-way information broadcasts are unlikely to have an impact on motivation and effect long lasting behaviour change although it is still essential to publicise the availability of services.

It is suggested that it is vital that health staff are encouraged to take full advantage of a mother's contact with the health services as this is likely to be the only time when a two-way exchange may take place. A more sympathetic and informative attitude on the part of health staff would address some of the major obstacles inhibiting the seeking of immunisation as identified in this study. To be motivated to attend for immunisation a mother needs to feel that the benefits outweigh the costs in terms of time and effort, sensitive and friendly treatment by health staff would facilitate this greatly.

There are also a number of other ways in which immunisation could be promoted. A number of J.S.S. children were encountered who were remarkably well informed about immunisation, the promotion of information about immunisation in schools (including Primary Schools) should be encouraged. A number of men were also spoken to during the course of this research and they also indicated a desire for information about immunisation. They acknowledged their responsibilities in child care as predominantly financial but also said they could be influential in advising their wives as to the need for immunisation.

It was also very encouraging that the TBA's in the communities were actively involved in house to house activities encouraging immunisation, although how much this involved discussion and information rather than just publicising the arrival of an outreach team, is unclear.

Clearly all members of the community must be involved as far as possible, especially since the study found that the most common sources of health advice are friends and relatives within the community anyway.

6.4 ATTITUDES TOWARDS HEALTH SERVICES AND HEALTH PROVIDERS

The perceived attitude of health staff was identified as a major obstacle to acceptance of immunisation. This in particular mitigated against acceptance and uptake of measles immunisation. Early negative experiences of the EPI and health staff discouraged further attendance for later immunisation.

Side-effects are most common from the BCG and DPT immunisation. Mothers who had not been warned to expect them and who did not know how to deal with them were in particular put off immunisation. Measles immunisation which is given at nine months was not therefore sought out. Mothers also felt inadequate and perceived that they were treated as inferior if they could not afford to dress up smartly to attend the clinic, they said nurses were far more interested in smartly dressed mothers.

The study also identified young mothers under twenty in particular as being inhibited from seeking immunisation for their children because of fears of health staff. Mothers said that if they had their babies at home rather than in an official centre they were scorned and disgraced by the nurses. They also suggested that if they hadn't attended at forty days and went with their babies later to the clinics they would also be disgraced. The authoritarian attitude of nurses was cited in particular by these young mothers as being a major deterrent for attending clinics. In view of the large number of mothers under twenty it seems vital that a more open, friendly attitude amongst health staff is encouraged. Health staff consulted during this research were of the opinion that mothers did not remember what they were told because they were illiterate and uneducated rather than that the fault may lie in the way in which mothers are told things. Training must include exploration of appropriate two-way communication between mothers, community members and health staff so that the most is made of the contact between the two..

7. CONCLUSIONS AND RECOMMENDATIONS

7.1 IMPLICATIONS FOR HEALTH EDUCATION

- 7.1a. Health education activities must aim to motivate rather than just mobilise the public to accept immunisation.
- 7.1b. The fact that measles immunisation is given at nine months must be incorporated into health education messages.
- 7.1c. The benefits of immunisation must be promoted in accordance with mothers and community perceptions of these.
(For example, immunisation makes your child strong and allows the mother time to do other things because she does not have to look after a sick child. Promoting immunisation simply as something that makes your child strong may imply that healthy children do not need immunisation.)
- 7.1d. Health education must promote information, counselling and support for mothers with regard to the side effects of immunisation. Mothers must be aware of their short term and benign effect in order that they are not put off measles immunisation as a consequence.
- 7.1e. Health education for nurses and those running immunisation programmes must emphasise the importance of individual communication and two way communication between health staff and members of the public despite obvious constraints such as large numbers of mothers attending clinics and the limited time available for such contact. Participatory approaches to training which incorporate role plays and activities exploring the communication process are fundamental to this.

7.2 IMPLICATIONS FOR FUTURE RESEARCH

- 7.2a. The use of household interview/discussions is an appropriate and feasible technique for obtaining qualitative data as sought in this study and could be utilised for other research purposes.
- 7.2b. Further investigation of the occurrence of measles despite immunisation might be carried out. Where this is seen to occur it often acts as a negative influence on acceptance of measles immunisation for subsequent children.

7.2c. A quantitative investigation could be carried out to assess the frequency and the absolute importance of the factors inhibiting the uptake of measles immunisation identified in this study. It was possible to assess their relative importance crudely simply by the number of times they were mentioned by mothers and community members in this study. The results could also be compared to a larger sample population. It would also be possible to investigate the association between attitudes and health seeking behaviours.

7.2d. The field testing of suitable health education messages with regard to measles is essential. These must incorporate perceptions of the costs and benefits of immunisation which are common in the communities in which they are to be used.

APPENDIX ONE

Reasons given for the non-immunisation of children (Ghana Social Mobilisation Analysis, UNICEF, 1988)

Afraid of side-effects.

Too busy with work.

Don't have right clothes or money for immunisation centre.

Don't believe it is important for child's health.

Long waiting time.

Vaccination is too costly.

Discourteous treatment by health personnel.

Away from home at time.

Forgot.

Not informed of the time/place of immunisation.

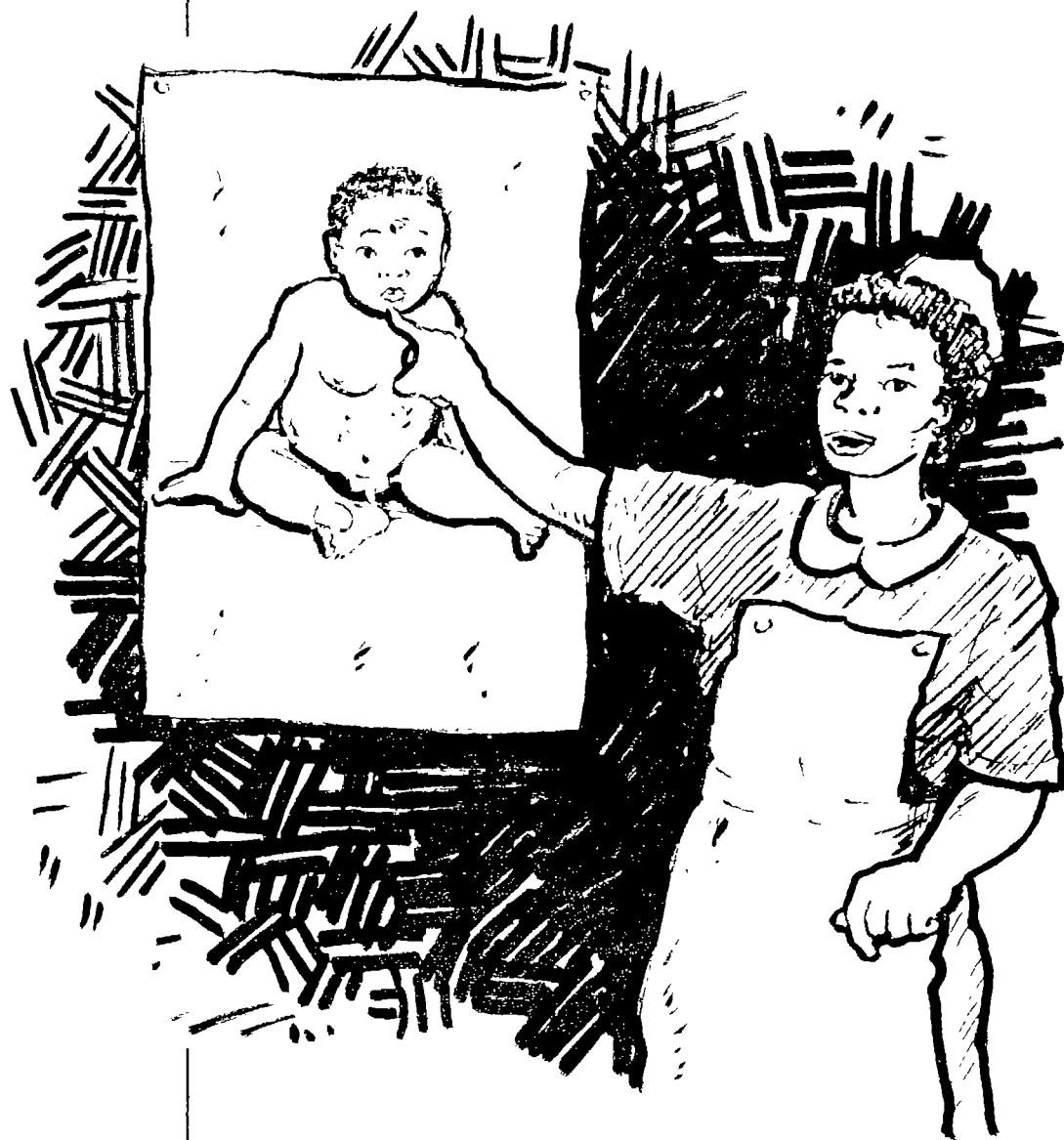
Occurrence of disease in older siblings after immunisation.

Immunisation sites long distance from home.

REFERENCES

1. Ahafia. V. Problems facing mothers participating in the EPI in the Jachie-Pramso area of Ashanti, Ghana. July, 1989. (Dissertation, School of Medical Sciences, UST, Kumasi.)
2. Baah. T. KAP of Parents in Amansie District of Ashanti in relation to measles. June, 1988. (Dissertation, School of Medical Sciences, UST, Kumasi.)
3. District Medical Officer, Kumasi, 1991. Annual Report.
4. District Medical Officer, Kumasi, 1992. Half Year Report, June, 1992.
5. Lafond A. A Study of Immunisation Acceptability in Somalia. Save the Children Fund, April, 1990.
6. UNICEF. Ghana Social Mobilisation study, 1988.

**AN INVESTIGATION INTO
THE UTILISATION OF
PARTICIPATORY HEALTH
EDUCATION MATERIALS
BY SELECTED AGENTS**



PRINCIPAL INVESTIGATOR
GLENN LAVERACK

RESEARCH ASSISTANTS
RITA DE GRAFT
ELIZABETH BEMPONG
S.T. CUDJOE KPENEY



SUMMARY

The findings of this study show that it is worthwhile using a participatory approach to health education which can enhance the work of the agents and are often popular with the target groups who retain many of the messages portrayed in the materials. However, the discussion based nature of the methodologies mean that they are time consuming and requires the agent to possess the necessary skills for their utilisation. The materials may be suitable for workshop settings but many other factors must be considered before they are utilised in the community, schools and clinics.

These considerations emphasise the need for thorough material design, pre-testing, production and evaluation. It should not be taken for granted that expensively produced glossy materials will be automatically utilised by agents and the messages absorbed by the target groups.

Health education is readily accepted as the responsibility of many agents but in practice very few personnel were found to carry out these activities even when fully supported by a well resourced health education unit. This emphasises the need to have many more community level health education personnel who have the responsibility to plan, implement, coordinate and monitor such programmes.

INTRODUCTION

The Kumasi Health Education Unit has developed a range of participatory health education materials for selected health education agents. The materials were introduced to agents during in-service training workshops and this study is a part of the outcome evaluation of the training programmes.

The following in-service training programmes were carried out by the Project;

A. 9 three day workshops were attended by 157 public health workers consisting of Environmental Health Officers (EHOs), Health Inspection Assistants, Community Health Nurse/Midwives. The workshops were designed to introduce the following participatory health education materials; flashcards, story with a gap, 3 pile sorting cards. An outcome evaluation 6 months after the workshops revealed that the public health workers reported using these materials to carry out health education activities as a part of their work in the community and clinics.

Baby cloth posters and discussion posters are two methodologies which were later distributed to Community Health Nurses in the five district polyclinics. In-service training was not provided but a demonstration and written guidelines were provided to the selected agents.

B. 11 three day workshops were attended by an average of 229 JSS teachers to introduce the concept of a school health programme and the following participatory health education materials; 3 pile sorting cards, flash cards, story with a gap and un-serialised posters. An outcome evaluation 6 months after the workshops revealed that the teachers reported that most of the materials were being used to support their lessons, particularly life skills and science subjects.

C. 8 two day workshops were attended by 138 primary school teachers to introduce the concept of a school health programme and the following participatory materials; dental hygiene flash cards, diarrhoea and accidents flipcharts, snakes and ladders game and the worm calender. An outcome evaluation 6 months after the workshops revealed that the teachers reported using the materials to support their work.

The emphasis of the evaluation has been on content, format and the practicality of the utilisation of the materials. It is essential that the agents are using the participatory health education materials with the intended target groups to ensure they have been exposed to the materials and messages to allow the transfer of information to increase awareness levels.

The Kumasi Health Education Project therefore decided to carry out a small scale study to investigate the utilisation of the health education materials introduced during the in-service training programmes by interviewing the intended target groups.

THE AIM OF THE STUDY

To determine whether the participatory health education materials are being used with the intended target groups by the selected health education agents.

OBJECTIVES

1. To determine which materials have been exposed to the intended target groups.
2. To determine the frequency of exposure to the health education materials.
3. To determine which selected health education agents are utilising the materials.
4. To determine the response of the target groups to the health education materials.

THE SELECTION OF THE SAMPLE POPULATION

The study cannot accommodate the total study population which is all the public Junior Secondary and Primary schools, all the communities and the five polyclinics in the district. A random sample of 25% of the schools included in the in-service training programme will be used as part of the study population. The total number of primary schools included in the programme was 126 giving a 25% sample population of 32 schools. The total number of Junior Secondary schools included in the programme was 124 giving a 25% sample population of 31 schools. A stratified random sample of five communities from each of the 4 sub-districts will be used for the sample population. All the five district polyclinics will be used in the sample population. Random sampling tables were used to select the sample population from the sampling frames. Appendices 1 and 2 provide the sample population for the study.

RESEARCH METHODOLOGY

It is suggested that qualitative methods of investigation are appropriate for this study. Focus group discussions with the intended target groups will be the main tool of data collection. For school children the researchers will visit each school in the sample population and take a sample of convenience from each JSS class 1,2 and 3 and from Primary 3,4,5 and 6. The teachers will be asked to leave the classroom whilst the focus group discussion is being carried out with the researchers.

For the clinics the researchers will visit each of the five polyclinics during a well baby clinic. The clinic will be visited early to carry out the focus group discussion before the nurses arrive on duty, although permission will be sought from the Medical Officer in Charge.

For the community the researchers will visit each of the

communities in the sample population after prior notification of the visit to the village elders. The researchers will hold the focus group discussion in a market place or visit individual households where health workers would normally conduct health education activities.

The health education agents will not be informed about this study to avoid any attempted health education activities in the study areas.

Focus group discussion guidelines for each of the intended target groups are provided in appendices 3 to 6.

THE FINDINGS

THE CLINICS

A total of 133 people were interviewed in the five district polyclinics. It was found that two of the five clinics, Child Welfare Clinic and Old Tafo, were actively using the materials (see table 1). Two of the clinics, Manhyia and South Suntreso, were found to be occasionally using the materials, where only one attender had previously seen the materials being used by the health workers. All attenders had been visiting the clinics for at least a four month period. One clinic, Kumasi South, was reported to not have used the materials by the attenders.

The materials being used were the flash cards, discussion posters and the baby cloth posters which had been specifically designed for use in the clinics.

The attenders found the materials to be very interesting which they felt had provided them with relevant information. The attenders were able to recount some of the messages presented in the materials about ORS preparation, personal hygiene and child spacing.

At one clinic the nurses were observed using the materials during the data collection. Normally data was collected in the absence of the nurses but on one occasion the nurses became annoyed when the attenders reported not having seen the materials being used in the clinic.

THE COMMUNITIES

Five of the twenty communities (20%) reported having seen the materials being used by the EHOs (see table 2). However, only two communities provided more than one positive respondent and the materials were reported to be used only on an occasional basis. The health workers often visit individual households to carry out education and this may account for only individuals reporting having seen the materials. Some communities reported having visits from the EHOs for prosecution and not education. One sub district of the four sample areas, Bantama, did not provide any positive responses.

The materials being used were the flash cards on sanitation, personal hygiene and the prevention of AIDS. The story with a gap and 3 pile sorting cards were not seen by the respondents.

The respondents felt that the materials had been informative and could recount some of the messages about personal hygiene, mosquito

control and the prevention of AIDS.

The respondents suggested that health workers should be encouraged to use the materials on a more regular basis.

THE PRIMARY SCHOOLS

Twelve of the thirty two primary schools (37.5%) provided a positive response from the pupils interviewed who said that they had seen the materials being used in their classes (see table 3). The full range of materials developed for Primary Schools were being used by the teachers with the exception of the snakes and ladders game. The teachers were using the materials in science classes on a regular basis. These were the teachers who had received in-service training from the Project.

The response of the pupils towards the materials were positive and they were able to recount many of the messages presented in the materials about hygiene and the prevention of accidents.

THE JUNIOR SECONDARY SCHOOLS

Seventeen of the thirty one junior secondary schools (55%) provided a positive response from the pupils interviewed who said that they had seen the materials being used in classes (see table 4). The full range of materials were being used with exception to the unserialised posters. The pupils reported that teachers had taught them about subjects without using the materials. The materials were being used on a regular basis in lifeskills and science subjects. These are the teachers who had received in-service training by the Project.

The response of the pupils towards the materials was positive and they were able to recount some of the messages about personal hygiene and the prevention of AIDS.

The pupils requested more materials on drug abuse, teenage pregnancy and T.B..

DISCUSSION OF THE FINDINGS

The overall use of the materials was poor. The materials were being utilised least by the Environmental Health Officers in the community. The EHOs were initially perceived as one of the most suitable groups of potential health education agents. It is therefore disappointing to find that this group are not actively using the materials. The EHOs regularly visit the community and have all received copies of the materials, many have returned to the Resource Centre to collect new materials. The communities are a large target group and it may have been because of a small random sample that the response was poor. The EHOs have to cover large areas on foot and the actual coverage of health education activities may be thinly distributed.

The materials were only being used occasionally in the community, less than once per month, but the full range were being utilised. The response of the target group was very positive who appeared to retain much of the information presented in the materials.

The materials were only being actively used in two of the five district polyclinics. It was ascertained that those people interviewed were regular attenders of the clinic. The full range of materials were being used usually on a monthly basis and the response of the attenders was very positive.

The schools were the most encouraging group and many were found to be utilising the full range of health education materials. The teachers used the materials to support science and lifeskills lessons on a weekly or monthly basis. The pupils found the materials very interesting and this assisted the teachers to reinforce messages on AIDS, sanitation and hygiene.

It was decided to carry out further focus group discussions and interviews with the agents and their senior managers to determine some of the reasons for the under utilisation of the participatory health education materials.

THE ENVIRONMENTAL HEALTH OFFICERS

A focus group discussion was held with all the district EHOs. The EHOs maintained that they had been using the materials as a part of their work although few were able to produce copies of the materials at the time of the focus group discussion which was held immediately after their return from the community.

The EHOs admitted that they were under pressure from senior management to prosecute rather than educate the community in order to generate income for the District Assembly. EHOs who did not meet their quota of prosecutions for the week have been threatened with a cut in their salary.

This was unpopular with some EHOs who said privately that they would prefer to solely carry out health education. However, some EHOs preferred this regime because it allowed more personal income ("dash") to be generated for themselves.

The EHOs admitted that they had a poor working relationship with the community who associated them only with prosecution. Members of the community avoided contact with the EHOs and sometimes actually ran away to hide when they saw the EHOs in their community.

The above factors seriously inhibited the utilisation of the materials by the EHOs. The 3 pile sorting cards and story with a gap were not often utilised by the EHOs because community members were unwilling to sit for any length of time to cooperate in the participatory methodologies. The EHOs preferred the flash cards and flip charts. The potential of EHOs for health education should be reconsidered in view of the findings of this study.

Following interviews with the senior management it was decided to select a cadre of EHOs who had expressed an interest in using the materials and to give them the sole responsibility of health education. These personnel would move from community to community

in the district and work with and encourage the other EHOs to utilise the materials correctly. The personnel would receive further training and support from the Health education Unit.

THE SCHOOLS

Interviews were held with several of the teachers from those schools which were reported as having not utilised the materials. The response from the teachers was mixed and some maintained that they had utilised the materials, others said that they had been denied access to the materials which were locked in the headmasters office, others said that the teachers who had received training had been transferred and no effort had been made to train other teachers. Some teachers complained that although they had used the materials in the lower forms the evaluation had only included the upper form pupils.

The snakes and ladders game was not used because the teachers felt that it would soon become dirty. The material is in fact printed on a washable cloth with permanent dyes.

Following a meeting with the District School Health Coordinator it was decided to arrange a meeting with all the headmasters from those schools which had not utilised the materials to encourage their cooperation with the programme. The Circuit Supervisors would also be included so that they could monitor the use of the materials during the school inspections.

THE POLYCLINICS

Each Medical Officer in Charge and several Community Health Nurses from the three polyclinics which were not actively using the materials were interviewed.

The Community health Nurses maintained that they had been using the materials but only once every month and this was dependent on the health theme. A particular health theme might not include the well baby clinics and this could account for the poor response of the mothers.

Other health workers in the clinic such as EHOs had carried out health education using the AIDS flash cards.

Some nurses said that they had not received the materials which were being held by the Medical Officer in Charge.

Some nurses said that the mothers were unwilling to participate in the activities and this made them feel as though they were wasting their time.

The findings of the study should be discussed at the DHMT to encourage the support of the Medical Officers in Charge for each clinic.

CONCLUSIONS

The findings of this study show that it is worthwhile using the participatory methodologies which can enhance the work of the agents and are often popular with the target groups who retain many of the messages portrayed in the materials. However, the discussion based nature of the methodologies mean that they are time consuming and requires the agent to possess the necessary skills for their utilisation. The materials may be suitable for workshop settings but many other factors must be considered before they are utilised in the community;

1. All agents will have very specific requirements for the material content and methodology depending on the nature of their work and the intended target group(s). The original methodology may have to be modified to suit the conditions under which the agents are working.

2. The relationship between the agent and the target group may not allow a participatory approach and the methodology may have to be modified.

3. There may be time constraints on the agent and the target group which do not allow participation.

4. There may be conflicting interests such as income generation Vs education for both the target group and the agents using the materials.

5. The target groups demand a high standard of material development and sophistication. Simple materials may not be accepted as target groups are often exposed to well produced materials through advertisements.

6. The initial level of training may not be sufficient to enable the agent to carry out the participatory methodologies. Regular follow-up activities are necessary to ensure and to encourage proper utilisation.

7. Agents at all levels especially senior management should be included in the training and follow-up programmes.

A handbook on guidelines for the use of discussion posters on maternal and child health, was developed and distributed to the polyclinics to encourage the nurses to use the materials.

The above considerations emphasises the need for thorough material design, pre-testing, production and evaluation. It should not be taken for granted that expensively produced glossy materials will be automatically utilised by agents and the messages absorbed by the target groups.

Health education is readily accepted as everyones responsibility but in practice very few personnel carry out these activities even

when fully supported by a well resourced health education unit. This emphasises the need to have many more community level health education personnel who have the responsibility to plan, implement, coordinate and monitor such programmes.

TABLE 1. RESPONSES FROM THE SAMPLE POPULATION OF CLINIC ATTENDERS.

CLINIC	NO. PERSONS AT CLINIC	HAVE YOU SEEN THE MATS?	WHICH HAVE YOU SEEN?	HOW OFTEN?	WHAT DID YOU LEARN FROM THE MATS?
C.W.C.	20	YES (20)	DISCUSS-POSTERS	ONCE PER MONTH IN F.PLG CLINIC	HOW TO SPACE CHILDREN
MANYIA	46	YES (1) NO (45)	BABY POSTERS	ONCE	HOW TO USE ORS
KUMASI SOUTH	7	NO (7)	-	-	-
OLD TAFO	35	YES (35)	FLASH CARDS	ONCE A MONTH	PERSONAL HYGIENE. HOW TO PREVENT AIDS.
SOUTH SUNTRESO	25	YES (1) NO (24)	FLASH CARD	ONCE A MONTH	MOSQUITO CONTROL

TABLE 2. RESPONSES FROM THE SAMPLE POPULATION OF THE COMMUNITIES

PLACE	NO. OF PERSONS	HAVE YOU SEEN A HEALTH WORKER USING THE MATS?	WHICH HAVE YOU SEEN?	HOW OFTEN?	WHAT DID YOU LEARN?
AKOREM	33	YES (1) NO (32)	FLASH CARDS	EVERY 4 MONTHS	MOSQUITO CONTROL
FANTE NEW TOWN	19	YES (1) NO (18)	FLASH CARDS	ONLY ONCE	PERSONAL HYGIENE
DADIESO-ABA	32	YES (5) NO (27)	FLASH CARDS	-	TO PREVENT DIARRHOEA
KRONUM	60	YES (13) NO (47)	FLASH CARDS	EVERY 2 MONTHS	MOSQUITO CONTROL. PERSONAL HYGIENE
MAKRO	46	YES (1) NO (45)	FLASH CARDS	ONLY ONCE	PREVENT AIDS

TABLE 3. RESPONSES FROM THE SAMPLE POPULATION FOR PRIMARY SCHOOLS.

SCHOOL	NO. OF PUPILS	WHICH MATS DID YOUR TEACHER USE?	HOW OFTEN?	WHAT DID YOU LEARN FROM THE MATS?
SAL-ARMY	8	FLIP CHART ON ACCIDENTS AND DIARRHOEA. DENTAL HYGIENE	EVERY MONTH	STDS OF PERSONAL HYGIENE
APATRAPA	8	AS ABOVE	EVERY MONTH	ACCIDENTS, 1ST AID AND WORMS
ADIEBEBBA	10	AS ABOVE	EVERY MONTH	STDS OF PERSONAL HYGIENE
FANKYENE-BRA.	8	AS ABOVE	ONCE	FOOD HYGIENE AND PERSONAL HYGIENE
AYEDUASE	8	AS ABOVE	EVERY MONTH	HAND WASHING
AMANFROM	6	AS ABOVE	ONCE PER MONTH	PREVENTION OF WORMS
BOHYEN	13	AS ABOVE	EVERY MONTH	PREVENTION OF WORMS
ASAWASE	4	AS ABOVE	EVERY MONTH	DENTAL AND PERSONAL HYGIENE
ADUM	8	FLASH CARDS ON PERSONAL AND DENTAL HYGIENE	EVERY WEEK	PERSONAL HYGIENE
STATE EXPERIMENTAL	7	AS ABOVE	EVERY WEEK	PERSONAL HYGIENE
SAKAFIA ISLAMIC	6	F/C ON ACCIDENTS	ONCE	PREVENTION OF ACCIDENTS
AHENSAN	2	F/C ON WORMS, ACCIDENTS AND DIARRHOEA	ONCE	DENTAL HYGIENE

TABLE 4. RESPONSES FROM THE SAMPLE POPULATION OF JUNIOR SECONDARY SCHOOLS.

SCHOOL	NO. OF PUPILS	WHICH MATS DID YOUR TEACHER USE?	HOW OFTEN?	WHAT DID YOU LEARN FROM THE MATS?
ADIEBEBEBA	10	3 PILE SORTING. FLASH CARDS	TWICE IN SCIENCE CLASS	PERSONAL HYGIENE
YAA ASANTEWAA	8	FLASH CARDS	THRICE IN LIFE-SKILLS	PREVENTION OF DIARRHOEA
NASRUDEEN	4	FLASH CARDS	ONCE	PERSONAL HYGIENE
SOUTH SUNTRESO	6	FLASH CARDS	ONCE A WEEK	PREVENTION OF AIDS, MALARIA AND PERSONAL HYGIENE
ST GEORGE INTER	4	3 PILE SORTING AND FLASH CARDS	ONCE	GOOD SANITATION
ABREPO	6	STORY WITH A GAP AND FLASH CARDS	EVERY WEEK	PERSONAL HYGIENE
HOLY SPIRIT	6	STORY WITH A GAP AND FLASH CARDS	TWICE	PERSONAL HYGIENE
WANTANIA ISLAMIC	6	STORY WITH A GAP AND FLASH CARDS	EVERY WEEK	PERSONAL HYGIENE AND SANITATION
NEW ABOABO	8	FLASH CARDS	EVERY WEEK	PERSONAL HYGIENE
SANTASI	6	3 PILE SORTING AND FLASH CARDS	EVERY TWO WEEKS	PREVENTION OF DIARRHOEA AND PERSONAL HYGIENE

TABLE 4. RESPONSES FROM THE SAMPLE POPULATION OF JUNIOR SECONDARY SCHOOLS.

SCHOOL	NO. OF PUPILS	WHICH MATS DID YOUR TEACHER USE?	HOW OFTEN?	WHAT DID YOU LEARN FROM THE MATS?
PATASE	4	STORY WITH A GAP. 3 PILE SORTING CARDS. FLASH CARDS .	ONCE EACH	PERSONAL HYGIENE AND SANITATION
ST PETERS	6	AS ABOVE	EVERY WEEK IN LIFESKILL	SANITATION AND MALARIA CONTROL
ASUOYEBOA	6	FLASH CARDS	ONCE	PREVENTION OF AIDS
STATE EXPERIMENTAL	19	FLASH CARDS AND 3 PILE SORTING CARDS	EVERY WEEK	PERSONAL HYGIENE
ST CYPRIAN	4	FLASH CARDS. 3 PILE SORTING CARDS AND STORY WITH A GAP	EVERY WEEK	PERSONAL HYGIENE
MARKO	9	FLASH CARDS AND STORY WITH A GAP	TWICE EACH	PERSONAL HYGIENE
YAA ACHAA	12	FLASH CARDS. 3 PILE SORTING CARDS AND STORY WITH A GAP	ONCE EACH	WATER SUPPLY

APPENDIX 1

THE SAMPLE POPULATION

THE PRIMARY SCHOOLS

- | | |
|--------------------------|--------------------------|
| 1. Abuakar sadik Islamic | 17. New Aboabo M/A A |
| 2. Sakafia Islamic | 18. Bohyen M/A |
| 3. Ansar El Islamic | 19. Asuoyeboa M/A |
| 4. Asawase M/A | 20. Atwima Amanfrom M/A |
| 5. Kenianko M/A A | 21. Kwadaso Estate |
| 6. Amankwatia M/A B | 22. South Suntreso SDA B |
| 7. Nasru-Deen M/A A | 23. Fankyenebra M/A A |
| 8. Adieba M/A | 24. State express B |
| 9. Quamariya Islamic | 25. Aprade M/A |
| 10. Ahinsan M/A | 26. Ash Town M/A B |
| 11. Chirapatre R/C | 27. Apatrapa R/C |
| 12. Ketin Kronu M/A | 28. Adum Presby primary |
| 13. Ayeduase R/C | 29. Yaa Asantewa A |
| 14. Eminaa M/A | 30. Appiadu R/C |
| 15. Kotei R/C | 31. Salvation Army B |
| 16. Uddara | 32. Asem Boys A |

THE JUNIOR SECONDARY

- | | |
|----------------------------|--------------------------------|
| 1. Maakro | 17. Yaa Asantewaa |
| 2. Denkyemuso M/A | 18. Ohwir M/a |
| 3. Holy Spirit Asokwa | 19. Parkoso |
| 4. Oforikrom M/A "A" | 20. Peter's Educational Centre |
| 5. Yaa Achiaa Girls | 21. Kwadaso M/A |
| 6. Chrapatre | 22. Santasi M/A |
| 7. State Girls M/A | 23. Amankwatia M/A |
| 8. Nasru Deen | 24. New Aboabo M/A |
| 9. Bantama St. Anthony R/C | 25. Wantania Islamic |
| 10. Anwomaso | 26. Asokwa Adiebeda |
| 11. Abrepo M/A | 27. Awere M/A |
| 12. South Suntreso SDA | 28. Nwomase M/A |
| 13. State Exp. M/A | 29. Kwadaso Estate |
| 14. Ohiwase Anglican | 30. St. Cyprians Anglican |
| 15. UST M/A | 31. Patase M/A |
| 16. St. Georges M/A | |

APPENDIX 2.

THE SAMPLE POPULATION

THE COMMUNITIES FROM EACH SUB DISTRICT

MANHYIA

1. Kronum
2. Mbrom
3. Odumasi
4. Maakro
5. Tafo-Nhyiaeso.

SUBIN

1. Roman hill
2. Fante new town
3. Adabie
4. Akwatia line extension
5. Dadiesoaba

BANTAMA

1. Zongo
2. Atasomansi
3. Apramang
4. Eduminase
5. Ohwimasi

ASOKWA

1. Asawasi
2. Kaase
3. Anloga
4. Kontomponi
5. Akorem

THE POLYCLINICS

1. Old Tafo
2. Manhiya
3. South Suntreso
4. Subin MCHC
5. Kumasi South

Appendix 3

A DISCUSSION GUIDE FOR THE SAMPLE POPULATION OF THE PRIMARY SCHOOLS

1. Name of school
2. Sex of respondents Male..... Female.....
3. Have your teachers used any of these health education materials during his/her lessons (show materials) ?
4. Which of these materials have your teacher used ? (show materials).
5. How often have the materials been used in this class/school
.....
.....
.....
6. Which of the materials is used most often (show materials)?
7. How did you find the materials ?
.....
.....
8. What did you learn from the materials ?
.....
.....
9. Did you like your teacher using them in his/her lessons ?
.....
.....
10. Which of the materials do you like most and why (show the materials)?
11. Do you have any suggestions on the materials?

Appendix 4

A DISCUSSION GUIDE FOR THE SAMPLE POPULATION OF THE JSS SCHOOLS

1. Name of school
2. Sex of respondents Male..... Female.....
3. Have your teachers used any of these health education materials during his/her lessons (show materials) ?
4. Which of these materials have your teacher used ? (show materials).

5. How often have the materials been used in this class/school and in which lessons
.....
.....
.....
6. Which of the materials is used most often (show materials)?

7. How did you find the materials ?
.....
.....
8. What did you learn from the materials ?
.....
.....
9. Did you like your teacher using them in his/her lessons ?
.....
.....
10. Which of the materials do you like most and why (show materials)?
11. Do you have any suggestions on the materials?

Appendix 5

A DISCUSSION GUIDE FOR THE SAMPLE POPULATION OF THE COMMUNITIES

1. AreaNo. of Respondents
2. Have you been visited by a health worker to educate you with any materials ?
3. Which of these materials have you seen being used by the health workers ? (show materials).
4. How often have the materials been used in this community ?
5. Which of the materials do they use most often ?
6. How did you find the materials ?
7. What did you learn from the materials ?
8. Did you enjoy using the materials ?
9. Which of the materials do you like most ? Why ?
10. Do you have any suggestions to make on the materials ?

Appendix 6

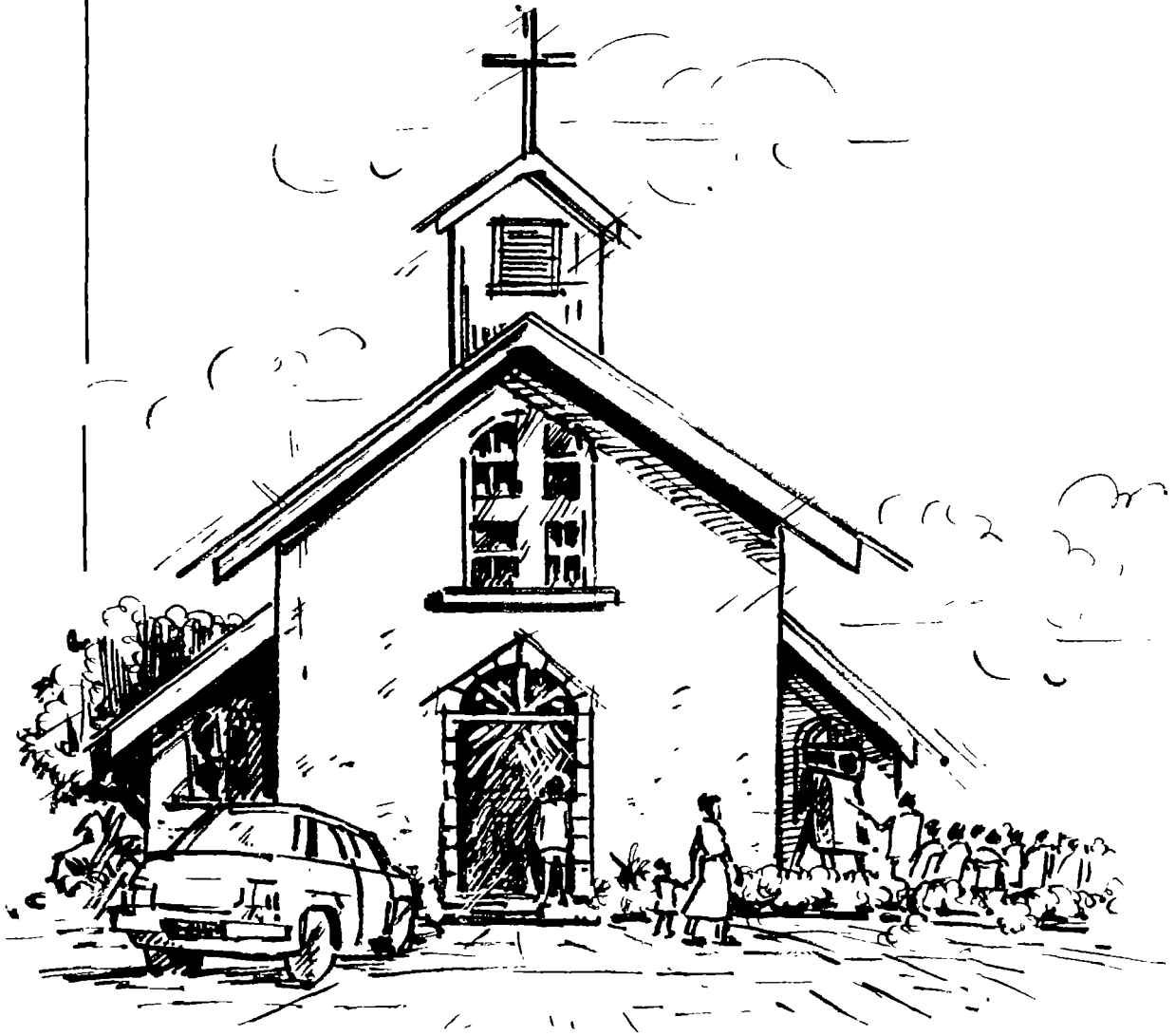
A DISCUSSION GUIDE FOR THE SAMPLE POPULATION OF THE CLINICS

1. CLINICNo. of Respondents .
2. Has the health worker ever used health education materials in this clinic ?
3. Which of these materials have you seen being used by the health workers ? (show materials).
4. How often have the materials been used in this clinic ?
5. Which of the materials do they use most often ?
6. How did you find the materials ?
7. What did you learn from the materials ?
8. Did you enjoy using the materials ?
9. Which of the materials do you like most ? Why ?
10. Do you have any suggestions to make on the materials ?

[REDACTED]

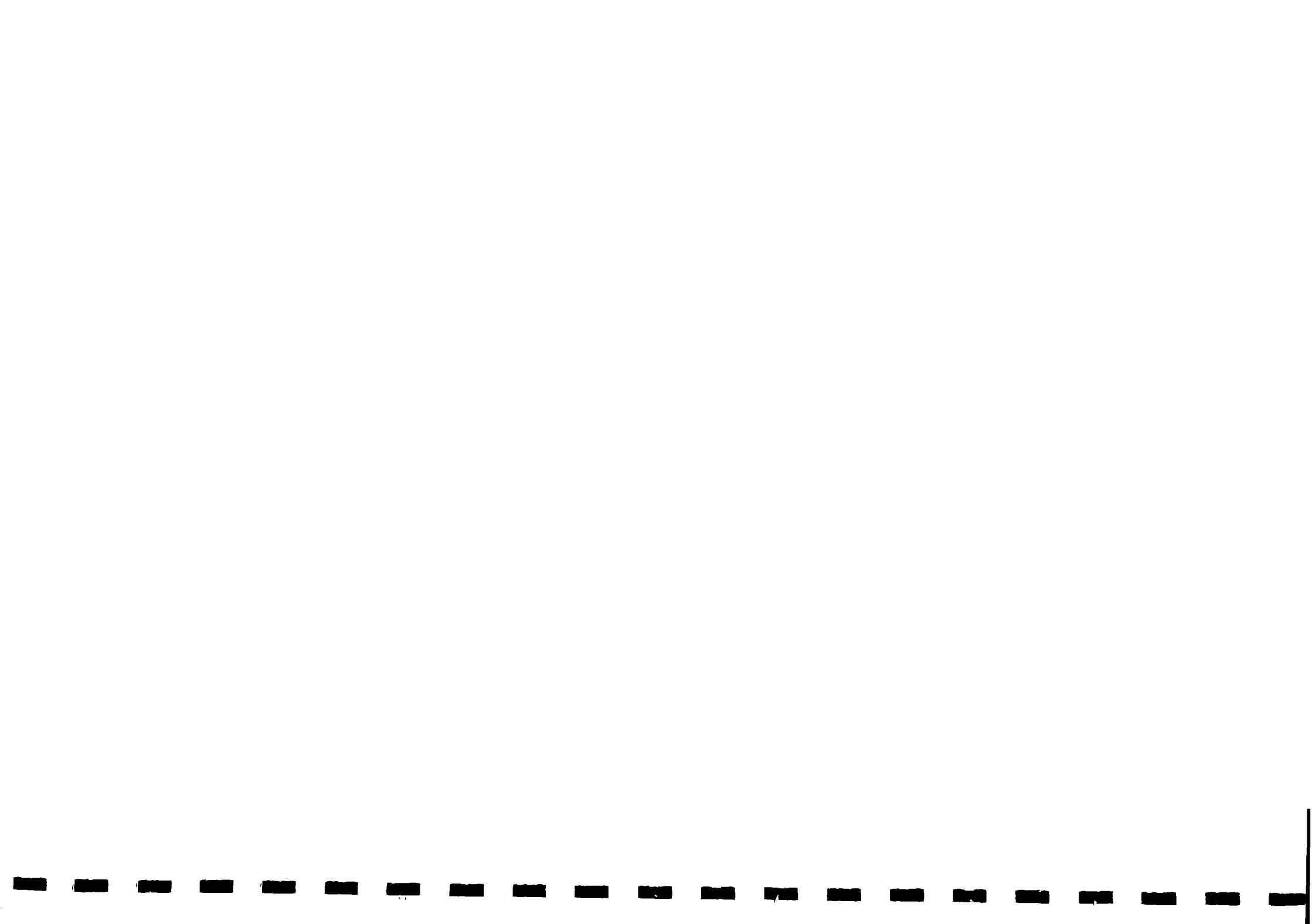
[REDACTED]

AN INVESTIGATION INTO THE UTILISATION OF CHRISTIAN CHURCH GROUPS AS HEALTH EDUCATION AGENTS IN KUMASI



PRINCIPAL INVESTIGATOR
GLENN LAVERACK

RESEARCH ASSISTANTS
S.T. CUDJOE KPENEY
RITA DE GRAFT
ELIZABETH BEMPONG



SUMMARY

The findings show that there is a decentralised system within practically all christian church denominations included in this study for purposes of preventive health education. Curative services may be coordinated and supported from the national level in some churches.

Most churches have access to limited funds and are expected to be financially self-sufficient at the local level and are therefore less interested in activities which may create a burden on their resources. Few churches received donor assistance for health education programmes. Churches are able to provide a venue, furnishings and personnel for health education programmes.

Most churches were able to identify health education agents who could be trained to coordinate health education activities in their denomination.

In view of the findings of this study several suggestions are given for health education support to christian church groups.

INTRODUCTION

Missionary work has existed in Ghana since the early 1800s but it was the early 1900s that saw the establishment of independent churches such as the presbyterians, methodists and pentecostals. The emergence of Independent African Churches started later and are now the most rapidly growing churches in Ghana.

60% of all Ghanaians and 70-80% of those in the southern regions claim to be christian. However, the national average church attendance is only 11% (approx 1.5m people) which varies considerably between regions from 15% in Greater Accra and Ashanti Regions to 3% in the Upper East Region. The number of christian churches are greatest in the southern regions with the Ashanti Region having the highest number of churches (see graph 1). Christian churches in Ghana can be grouped into six main denominations which are composed of several individual churches or member denominations. The main denominations are 1. The Christian Church of Ghana 2. Sundry Mission Related, originating from an overseas church or missionary society 3. Ghana Pentecostal Council 4. African Independent, founded by africans considered to be spiritual or pentecostal 5. Seventh Day Adventist 6. Roman Catholic. See appendix 1 for the list of member denominations.

The African Independent group has the largest number of churches in Ghana (see graph 2) followed by the Christian Church of Ghana and the Pentecostals. The African Independent group also has the fastest growth rate of new churches established in the previous 10 year period followed by the pentecostals (see graph 3).

Amongst all christian churches the proportion of male to female attenders is almost equal with slightly more women than men attending church. An average 29% of all church attenders are children below the age of 15 years.

Nationally 8.5m people claim to be christian of which 1.5m regularly attend church, 2m claim to be of muslim affiliation and 3.5m claim to hold traditional beliefs or have no religion. The proportion of people with a particular religious affiliation varies considerably between the regions. The 7 southern regions are predominately christian, the Northern Region is mainly muslim and the Upper East and West Regions mainly hold traditional beliefs (see graph 4).

Theoretically, 11% of the population, mainly in the southern regions, could be reached for purposes of health education through christian church groups. Likewise, 13% of the population, mainly in the Northern Region, could be reached through muslim groups.

Given that almost a quarter of the population in Ghana could be educated about health issues through religious groups the Kumasi Health Education Project proposes to carry out a small study to investigate the utilisation of christian church groups as health education agents in the Kumasi district.

AIM OF THE STUDY

To determine whether christian church groups can be utilised as health education agents in the Kumasi district.

OBJECTIVES

1. To assess the level of health education currently being carried out by selected church groups.
2. To investigate the organisational structure of selected church groups in regard to the implementation of health education.
3. To identify those personnel who have the responsibility for organising and/or implementing health education activities.
4. To determine the resources available to church groups and to assess the demand for resource support.

RESEARCH METHODOLOGY

THE SELECTION OF THE SAMPLE POPULATION.

The small scale survey cannot accommodate the total study population which is the christian church denominations and their sub-branches in the Kumasi district (see appendix 1). Therefore, a stratified random sample of 30% of the 6 main church denominations will be taken and used as the sample population. The sample size for each denomination was calculated as Church Council of Ghana 10, Sundry Mission Related 13, Pentecostal 7, African Independent 5, Seventh Day Adventists 7 and Catholic 4 (appendix 2). Random sampling tables were used to select from the total number of sub-denominations listed under church group (sampling frame) the sample size for each group. The selected sub-denominations and individual churches for each group are provided in appendix 3. A total of 46 churches were selected as a 30% sample population for the study.

METHODOLOGY

It is suggested that quantitative and qualitative methods of investigation are appropriate for this study. A combination of a self-reporting questionnaire and key informant interviews will be used to fulfil the objectives of the study.

A questionnaire will be distributed to the 46 churches selected as the sample population to determine the organisational structure of the churches, the identification of personnel, the resources available and the willingness to pay for health education support.

key informant interviews with church leaders from the 6 main church denominations will be carried out to cross-check the questionnaire and to provide information about the structure of health services within the church.

The questionnaire will be given to and collected from branch leaders for all members of the sample population. Identified members responsible for health education activities or district

leaders will take part in key informant interviews.

The questionnaire was pre-tested with three church members not included in the sample population and the final instrument for this study is provided in appendix 4. The discussion outline for the key informant interviews is provided in appendix 5.

The research will be carried out by one researcher and two assistants from the Kumasi Health Education Project.

ANALYSIS OF THE DATA

The analysis of the quantitative data from the questionnaire will be carried out using simple frequency analysis of the findings and the totals presented as a percentage of the entire sample population in tables. Qualitative data from the key informant interviews will be presented as a brief account of the main points discussed in the outline.

THE FINDINGS

The responses to the questionnaire are presented according to the order that the questions appeared on the questionnaire. Remarks to open questions are recorded exactly as they appeared in the questionnaire. All 46 questionnaires were completed and used in the analysis.

Following instructions about how to answer each question the respondents were asked to give the name and branch of their church.

QUESTION 2: Does your church presently carry out any health education activities?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	5	5
SUNDRY RELATED MISSIONS	N=13	3	10
GHANA PENTECOSTAL COUNCIL	N=7	5	2
AFRICAN INDEPENDENT	N=5	2	3
SEVENTH DAY ADVENTISTS	N=7	7	0
ROMAN CATHOLIC	N=4	2	2
TOTAL	N=46	24 (52.2%)	22 (47.9%)

If yes, the respondents were asked to name these activities;

Lectures on family planning, AIDS, teenage pregnancy, nutrition, malaria treatment, retention of urine and cancers.

These activities were carried out by the SDAs, Roman Catholics and Christian Churches of Ghana. The African Independent (MDCC) had arranged some seminars, videos and talks but were not specific about the content.

The respondents were asked how often these activities were carried out;

Once a quarter, monthly, at times and twice a year were the responses.

The respondents were asked where these activities are carried out;

Inside the church premises or school room used by church for services, in the open air, at youth camps, at retreats and at crusades.

QUESTION 6: Is any person responsible for the coordination of health education activities?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	5	5
SUNDRY RELATED MISSIONS	N=13	0	13
GHANA PENTECOSTAL COUNCIL	N=7	5	2
AFRICAN INDEPENDENT	N=5	2	3
SEVENTH DAY ADVENTISTS	N=7	7	0
ROMAN CATHOLIC	N=4	2	2
TOTAL	N=46	21 (45.7%)	25 (54.3%)

The respondents were asked to name this person and if he/she had links with other branches;
 Most respondents gave the name of a person responsible and indicated that they were networking with other branches of their denomination, the fellowships and groups within their church.

QUESTION 10: Are health education activities in your branch coordinated through the main church office?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	3	7
SUNDRY RELATED MISSIONS	N=13	0	13
GHANA PENTECOSTAL COUNCIL	N=7	0	7
AFRICAN INDEPENDENT	N=5	2	3
SEVENTH DAY ADVENTISTS	N=7	7	0
ROMAN CATHOLIC	N=4	4	0
TOTAL	N=46	15 (32.6%)	31 (67.3%)

If yes, the respondents were asked to give the name of the person responsible. If no, the respondents were asked to explain how activities are coordinated in their branch.

The SDAs and Roman catholics indicated that there was a national structure to organise health education activities whilst the Pentecostals and Mission related churches did not have a national structure. However, all the churches coordinated their activities at the district level and did not take instructions from the headquarters regarding health education activities.

QUESTION 13: Have you invited health workers, teachers or other health education agents to give talks and show films at your church?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	3	7
SUNDRY RELATED MISSIONS	N=13	3	10
GHANA PENTECOSTAL COUNCIL	N=7	2	5
AFRICAN INDEPENDENT	N=5	2	3
SEVENTH DAY ADVENTISTS	N=7	7	0
ROMAN CATHOLIC	N=4	4	0
TOTAL	N=46	21 (45.7%)	25 (54.3%)

Respondents were asked to give examples of the people who carried out the health education;

Doctors, midwives, dentists, the Kumasi Health Education Unit staff, the Diocese health coordinator, medical students and members of other mission clinics.

QUESTION 15: Does your church have a budget for health education activities?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	2	8
SUNDRY RELATED MISSIONS	N=13	2	11
GHANA PENTECOSTAL COUNCIL	N=7	0	7
AFRICAN INDEPENDENT	N=5	0	5
SEVENTH DAY ADVENTISTS	N=7	4	3
ROMAN CATHOLIC	N=4	0	4
TOTAL	N=46	8 (17.3%)	38 (82.7%)

QUESTION 16: Does your church have access to transport for the purposes of health education?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	1	9
SUNDRY RELATED MISSIONS	N=13	2	11
GHANA PENTECOSTAL COUNCIL	N=7	0	7
AFRICAN INDEPENDENT	N=5	0	5
SEVENTH DAY ADVENTISTS	N=7	2	5
ROMAN CATHOLIC	N=4	0	4
TOTAL	N=46	5 (10.9%)	41 (89.1%)

QUESTION 17: Does your church have access to a teaching hall/room for the purposes of health education?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	6	4
SUNDRY RELATED MISSIONS	N=13	5	8
GHANA PENTECOSTAL COUNCIL	N=7	5	2
AFRICAN INDEPENDENT	N=5	3	2
SEVENTH DAY ADVENTISTS	N=7	7	0
ROMAN CATHOLIC	N=4	3	1
TOTAL	N=46	29 (63%)	17 (37%)

QUESTION 18: Does your church have access to equipment such as film projectors or slide projectors for the purposes of health education?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	2	8
SUNDRY RELATED MISSIONS	N=13	0	13
GHANA PENTECOSTAL COUNCIL	N=7	0	7
AFRICAN INDEPENDENT	N=5	0	5
SEVENTH DAY ADVENTISTS	N=7	2	5
ROMAN CATHOLIC	N=4	0	4
TOTAL	N=46	4 (8.7%)	29 (91.3%)

QUESTION 19: Does your church have access to resources such as paper, pens, blackboards for the purposes of health education.

DENOMINATION	YES	NO
CHRISTIAN COUNCIL OF GHANA N=10	3	7
SUNDRY RELATED MISSIONS N=13	2	11
GHANA PENTECOSTAL COUNCIL N=7	4	3
AFRICAN INDEPENDENT N=5	3	2
SEVENTH DAY ADVENTISTS N=7	3	4
ROMAN CATHOLIC N=4	2	2
TOTAL N=46	17 (36.9%)	29 (63.1%)

Respondents were asked to list any other materials resources or equipment which the church had access to but had not been mentioned;

P.A. system.

QUESTION 22: Would your church be willing to pay a small fee to borrow equipment and resources?

DENOMINATION	YES	NO
CHRISTIAN COUNCIL OF GHANA N=10	8	2
SUNDRY RELATED MISSIONS N=13	13	0
GHANA PENTECOSTAL COUNCIL N=7	5	2
AFRICAN INDEPENDENT N=5	5	0
SEVENTH DAY ADVENTISTS N=7	5	2
ROMAN CATHOLIC N=4	4	0
TOTAL N=46	40 (86.9)	6 (13.1)

The respondents were asked to state why they would not be willing to pay a small fee for the use of equipment etc;

Due to lack of money, depends on fee, feel it should be free, if must pay it should be really small. The church is financially handicapped.

QUESTION 24: Would your church be willing to pay a small fee to receive health education talks and films?

DENOMINATION		YES	NO
CHRISTIAN COUNCIL OF GHANA	N=10	8	2
SUNDRY RELATED MISSIONS	N=13	13	0
GHANA PENTECOSTAL COUNCIL	N=7	5	2
AFRICAN INDEPENDENT	N=5	5	0
SEVENTH DAY ADVENTISTS	N=7	5	2
ROMAN CATHOLIC	N=4	4	0
TOTAL	N=46	40 (86.9%)	6 (13.1%)

The respondents were asked to state why they would not be willing to pay the fee;

The responses were;

Due to lack of money, the church is a young branch, no budget.

THE KEY INFORMANT INTERVIEWS

Wherever possible the person in charge of health matters within the church at the regional or district level was interviewed. When this was not possible another key member of the church was selected who had an in-depth understanding of the organisational structure and activities of the church. The interviews were arranged by appointment and lasted between 30 and 45 minutes. The interviews were conducted in english and the interviewer recorded the main points of the discussion in accordance with the outline.

1. THE CHRISTIAN COUNCIL OF GHANA

THE SALVATION ARMY

The interview was held with the Divisional Commander for the Ashanti Division.

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

The organisational structure of the Salvation Army in Ghana is divided into Divisions (regional), Districts and areas within each district. There is a Social Secretary who organises health related activities on a national basis and this person works through Divisional Commanders and Officers in Charge at the District level. Each area has a number of workers who may be involved with health work.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

The church has limited resources for health education except for buildings, furniture and occasionally vehicles. There is no budget from national or Divisional level for health education and activities are organised locally at the district or more usually the area level. The area workers have received some training (one

day workshop) in basic health care and first aid.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The church organises annual rallies and conferences for all levels during which health issues may be addressed.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

The church has been involved with the handicapped in the community. It would be willing to pay up to cedis 3000 for talks and films on health education. This money would be raised by local members.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The church has womens', youth and other groups which meet in the evenings and on weekends through who health education agents or trained area workers can work.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

The area workers and Officers in Charge present the most appropriate agents some of whom have a health background.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

In the church groups, at conferences/rallies and through area workers in the community.

THE PRESBYTERIAN CHURCH

The interview was held with the zonal Chairman of the Health Services Committee.

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

The National Health Coordinator in Accra works through regional, zonal (>2 districts), district and local church leaders. However, there are no national programmes and health education activities are carried out at the district or local church levels.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

There is no budget and little equipment for health education except for a few P.A. systems owned by local churches. The churches do have access to premises and furniture.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The church organises conferences and retreats from 1 day to 1 week in duration for the various groups in the church and for all members. Health issues are not necessarily discussed at these meetings.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

Mainly on an ad hoc or at best a quarterly basis when health workers such as doctors are invited to give a talk. The church

would be willing to pay the incidentals of health workers to provide a health education service. The money would be provided from donations made by the local churches or the district budget.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The church has well organised fellowships, sunday schools and other groups through who health education agents could work.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

There are no trained personnel at the district or church level to carry out health education but the church could select suitable people from the congregation to work as volunteers.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

In fellowships and at conferences.

THE METHODIST CHURCH

The interview was held with the Vice President of Health Services.

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

The Director of Nursing Services in Accra HQ coordinates the activities at the regional levels and the mission hospitals. The regions are divided into 10 districts and further sub-divided into circuits each containing between 20 to 30 churches. The churches are organised into societies and fellowships.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

The HQ and regions jointly prepare a budget for the clinics but does not provide a budget for health education and funds must be raised locally from church groups. The church does not have access to materials, resources or equipment. However, premises, tables and chairs etc are available at most churches.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The church arranges annual synods and conferences from the national level and the districts and regions arrange their own annual, biannual and monthly programmes. However, health issues are not specifically discussed at these meetings although this could be arranged through the church.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

The church has arranged for health workers from the mission hospital to give talks to the fellowships on family planning and AIDS although these have been carried out on an ad hoc basis. The church would be willing to pay a fee for hire of equipment and talks by health education staff this would be donated by the congregations of individual churches.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The church has a number of fellowships, societies and sunday schools which could be utilised to carry out health education activities. These meet in the evenings and at weekends on a regular basis.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

The church could identify personnel with a health background who could be trained as health educators within the church groups, these also include sunday school supervisors and leaders of the various fellowships. Training could also be given to health workers in the mission hospitals.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

The best opportunities would be in the fellowships and sunday schools and at the mission hospitals.

2. SUNDRY RELATED MISSIONS

THE RESURRECTION POWER EVANGELISTIC MINISTRY (RPEM)

The interview was held with the Regional Coordinator.

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

The national headquarters is based in Kumasi which works through Regional offices and local church pastors. There are no national programmes and activities are arranged and funded by the local pastors.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

There are few established churches and very little resources. The church often uses school rooms to hold services which may not have electricity and few furnishings. There are no trained personnel to work as agents, except for the pastors.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The church does occasionally arrange conferences.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

The church had no record of any health education activities as this is the responsibility of the pastors who may occasionally invite health workers to give a talk. The church would be willing to pay about cedis 1000 per talk and the money would be raised by the local church.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The church has fellowships through which agents could carry out health education activities in the evenings or at the weekends.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

There are no trained personnel.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

At fellowships or conferences.

3. THE GHANA PENTECOSTAL COUNCIL

THE ASSEMBLIES OF GOD

The interview was held with the Central District Coordinator.

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

The National Health Services Department Coordinator works through 3 District coordinators (Northern, Central and Coastal), through sessions (districts) and local church leaders. However, there are no national or regional programmes and activities are arranged by the session or more often the local church.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

The church does not have a budget for health education and few resources except premises. The local churches are expected to raise funds through the congregation to carry out these types of activities. There are no trained personnel at any of the levels to organise health activities.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The church arranges annual seminars and conferences.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

The church organises ad hoc activities such as talks.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The church has fellowships, sunday schools and other groups through which activities could be arranged.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

Each group and fellowship has a representative and the sunday schools have superintendents who could receive training to carry out health education.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

The fellowships, conferences and sunday schools.

4. THE AFRICAN INDEPENDENTS
THE MUSAMA CHRISTO DISCO CHURCH

~~The interview was held with the local church leader.~~

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

The church is organised from the national to regional offices. Each regional office is divided into districts and circuits which have a number of churches or stations. There are no appointed personnel who have responsibility for health education or health matters.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

The church does not have facilities for health education and many stations use empty school halls at the weekend to conduct the services.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The Meetings are held at all levels of the church and could accommodate talks on health.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

The church periodically invites clinical health workers to its address members on health issues such as drug abuse and family planning. The church would be willing to pay a fee for the hire of equipment and talks. The funds would be provided from local church congregations.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The church has many sub-groups for men, women and children which are held in the evenings and at weekends.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

There are health workers within the church who could be used to give talks and use materials provided for health education.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

In the evenings at church groups.

THE CHURCH OF CHRIST.

The interview was held with local church elder.

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

The church on an autonomous basis where the activities of one local church are not determined by another nor by the regional or national levels. Decisions regarding health and other issues are made by the local church elders. Funds are raised locally or provided by outside donors but it is the responsibility of the local church to elicit the donations.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

The resources and facilities vary from church to church depending on the level of interest and activity about health. Some churches have a clinic, college, transport and equipment but others have very little.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The Meetings are held by the church and could accommodate talks on health.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

The church periodically invites clinical health workers to its address members on health issues such as family planning. The church would be willing to pay a fee for the hire of equipment and talks. The funds would be provided from local church congregations.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The church has bible classes and may have a school or college where health education could be taught as a part of the curriculum.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

There are health workers within the church, clinics or members of the church who could be used to give talks and use materials provided for health education.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

At the bible classes, in schools or at the clinics.

5. THE SEVENTH DAY ADVENTISTS

The interview was held with the Zonal Health and Temperance Director.

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

Health matters within the church are organised at the national level by the Union Health and Temperance Director who works through 4 zonal Health and Temperance Directors and District Health and

Temperance Directors to the local churches where church health and temperance leaders organise activities. The SDAs are well organised and have an active interest in health issues within the church. The church also organises an Adventists Health Association which is attended by health workers who visit church groups to carry out basic preventive medicine such as blood pressure and give advice on common maladies.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

There is no budget specifically from the national level for health education but the zones may receive a small sum for such activities. Local churches are expected to raise their own funds for health education. These churches have access to limited resources such as premises and basic A.V. equipment. Local leaders do receive training in one or two day workshops in basic health care.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The church arranges annual conferences and seminars for organisers and coordinators. The districts organise camp meetings and Health and Temperance weeks.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

Talks by health workers to church members during camps, Health and Temperance weeks and to fellowships regarding a range of health issues. The church would be willing to pay for health education support in the form of equipment hire and talks. The money would come from local fund raising by the church leaders.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The church has groups for women and children through which their own Health and Temperance leaders carry out health education.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

The Health and Temperance Directors and leaders have been selected according to their health background and provided with a small amount of training by the church.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

During fellowship meetings, camps, conferences.

6. THE ROMAN CATHOLICS

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

The National Catholic Secretariat and the National Catholic Health Council are the main bodies within the organisation coordinating health issues. The Council deals with overseas funding to assist

dioceses and local churches obtain funding for health and other projects. The Secretariat coordinates the health policies of the church. There are 10 dioceses which act, for purposes of health, on an autonomous basis. Within each diocese the Episcopal vicar is in charge of the health and education departments and the fellowship groups and societies. The Health Department coordinates training and health policies within the diocese, however, the individual clinics and hospitals manage their own finances and programmes and provide full financial support for the Department.

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

The church does not provide a budget for health. The clinics/hospitals are expected to raise funds locally or apply for donor assistance. The access to resources therefore varies considerably between local churches. Some may have access to vehicles and A.V. equipment others may have none. The diocese Department in Kumasi is poorly equipped and resourced and has access only to premises and basic stationary.

The local churches or the diocese Department may be willing to pay a fee for the hire of equipment and for talks, although this is dependent on the available funds.

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

The national church arranges annual and biannual meetings. The dioceses and local church also organise quarterly and monthly meetings for the members.

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

This depends on the activities of individual churches which may vary considerably. The churches work mainly through the clinics, some may have out reach clinics and in the community if they have received overseas funding for this purpose.

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

The churches have many local societies for women, youths etc through which agents could carry out health communication.

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

The health workers at the clinics or members of the Health Department.

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

Through the clinics/hospitals, out reach clinics, the societies and coordinated through the Health Department.

The church promotes only the natural methods of family planning and does not promote the use of condoms to prevent STDs and HIV.

DISCUSSION OF THE FINDINGS
THE QUESTIONNAIRE

Questions 2 to 6 showed that the number of churches presently carrying out health education activities were just over half (52.2%) of those involved in the study. The established churches such as the Roman Catholics and the SDAs were more active than the mission related or independent churches. Health education activities consisted of talks to members of the church about health issues felt to be important to the audience carried out by health professionals such as doctors. The activities were not part of a structured programme but were carried out on an ad hoc basis or when opportunities presented themselves for example at quarterly and biannual conferences.

Questions 6 to 9 showed that approximately half the churches involved in the study (45.7%) said that there was a person responsible to coordinate health education activities in their local church. Most of these coordinators were networking with other branches or groups within their denomination.

Questions 10 to 12 showed that most health education activities were not coordinated through a main office at regional or national level. Policies and the coordination for these activities were carried out by the local churches. Although the SDAs and Roman Catholics indicated a national coordinator their activities were mainly concerned with church hospitals and clinics. The onus was on local churches to raise funds and carry out activities regarding preventive health education.

Questions 13 to 14 showed that approximately half the churches (45.7%) had invited people to speak to members of the church about health issues. These personnel were doctors, nurses, dentists and medical students.

Question 15 showed that only 17.3% of the churches had access to a budget for purposes of health education. Funds were raised as and when necessary for health education through donations from the church members.

Question 16 showed that only 10.9% of the churches had access to transport.

Question 17 showed that 63% of churches had access to a teaching hall, large room or school room where talks and health education activities could be carried out.

Question 18 showed that only 8.7% of the churches had access to audio-visual equipment for purposes of health education, for example P.A. systems.

Question 19 showed that only 36.9% had access to a blackboard, stationary and other resources for purposes of health education.

Question 22 and 24 showed that most churches (86.9%) were willing

to pay a small fee for the hire of equipment and for talks about health issues to their church members.

THE KEY INFORMANT INTERVIEWS

The key informant interviews supported the information provided in the questionnaires. All church denominations included in the study have groups, societies and associations which present an opportunity to carry out health education to selected target groups. Children could be targeted through Sunday schools or Bible reading classes. The church hospitals and outreach clinics also provide an opportunity for health education and the materials developed by the Project could be utilised in these situations.

All churches were able to identify suitable personnel who could be trained to carry out health education activities. These personnel were identified as health workers or teachers.

Although the established churches such as the SDAs and Roman Catholics had a national infrastructure it was still the responsibility of the local churches to raise funds and to plan and implement health education activities. Unfortunately, few churches have access to a budget for the purposes of health education.

CONCLUSIONS

The findings show a decentralised system within practically all churches for preventive health education programmes. This provides the opportunity for church activities to be supported at the district level by the DHMT or other organisations for health education programmes. The churches have access to limited funds and are under pressure from the national level to be financially self-sufficient at the local church level. Few churches were receiving assistance from outside donors. Churches are therefore concerned with revenue generation and are less interested in activities which create a financial burden on the church.

The churches put more emphasis on clinics and hospitals which have the potential for income generation and which often receive support from the national/regional levels.

The churches have access to limited resources and this has created a demand for health education services for which most churches are willing to pay a small fee. Most churches can provide an adequate venue for health education activities with its members. Suitable health education agents exist in the churches but these personnel would require in-service training to introduce supporting methodologies and materials.

The church environment provides a good opportunity for health educators within the church to carry out participatory methodologies such as role play and drama. Drama has been demonstrated to be a useful participatory learning tool in Ghana with adult groups.

Although many churches have a designated person to coordinate health education activities the ad hoc nature of programmes

reflects a lack of planning, resources and commitment.

HEALTH EDUCATION SUPPORT TO CHRISTIAN CHURCH GROUPS

The established christian churches have the most potential to be utilised as health education agents. They have an infra-structure of health workers, access to better resources and facilities and their commitment to preventive health education would provide future programmes with a better chance of success.

The health practices of some of the small independent churches requires the identification of specific messages to be targeted at for example, the delivery of children by unqualified midwives.

In view of the findings of this study the support to churches might be most appropriately provided through;

1. Assistance to plan and coordinate health education activities within their denomination.
2. Information about the availability of supporting services at the district level.
3. The identification of specific messages relating to practices carried out by the small independent churches.
4. Trained health education coordinators for each denomination should be introduced to participatory methodologies such as drama and songs which require little financial input.
5. The DHMT actively including selected church groups in district health education programmes.

REFERENCES

1. The Ghana Evangelism Committee.
National and Regional church survey
1985-1989
2. Statistical methods in epidemiology.
p.13. Kahn.H. etal. Oxford Press 1989.

APPENDIX 1. CHRISTIAN CHURCH DENOMINATIONS IN GHANA
SOURCE: THE NATIONAL CHURCH SURVEY. 1985-89.

1. THE CHRISTIAN COUNCIL OF GHANA.

MEMBER DENOMINATIONS

A.M.E.Zion
Anglican
Baptist (convention)
Evangelical Lutheran
Evangelical Presbyterian
Mennoite
Methodist
Presbyterian
Salvation Army
Interdenominational

2. SUNDRY MISSION RELATED

MEMBER DENOMINATIONS

Baptist (independent)
Baptist (international)
Baptist (mid missions)
Churches of christ
Evangelical church of Ghana
Good news churches
New Apostolic
United Christian Churches Brotherhood

3. GHANA PENTECOSTAL COUNCIL

Apostolic
Apostolic Reformed
Assemblies of God
Christ Apostolic
Church of God
Church of Pentecost
Deeper Life Bible Church
New Covenant Church
Sacred Action Church

4. AFRICAN INDEPENDENT

African faith Tabernacle
Apostles revelation Society
Cherubim and Seraphim
Church of Christ (S.M.)
Church of the Lord (group)
Divine Healers Church
Musama Disco Christo Church
Saviour Church of Ghana
Twelve Apostles Church

5. SEVENTH DAY ADVENTIST

6. ROMAN CATHOLIC

APPENDIX 2. THE STUDY SAMPLE SIZE FOR CHRISTIAN CHURCH DENOMINATIONS IN KUMASI.

NAME OF DENOMINATION	SUBS	PERCENT OF TOTAL SUBS	SAMPLE SIZE (30%)
CHRISTIAN COUNCIL OF GHANA salvation army st cyprians cathedral church presbyterian church methodist total	5 5 19 6 35	23	10
SUNDRY MISSION RELATED church of christ resurrection power evangelistic ministry church of lord brotherhood total	18 22 5 45	29	13
GHANA PENTECOSTAL COUNCIL 7th day pentecostal assemblies assemblies of god total	1 21 22	15	7
AFRICAN INDEPENDENT church of christ (sm) mosama disco christo church house of faith ministries come preach christ international gospel church christian hope missionary abedengo incarnation church total	4 7 1 1 1 1 1 16	10	5
seventh day adventists total	22	15	7
roman catholic total	12	8	4
TOTALS	152	100	46

APPENDIX 3. THE SAMPLE POPULATION SELECTED BY STRATIFIED RANDOM SAMPLING FROM THE SAMPLING FRAME.

CHRISTIAN COUNCIL OF GHANA

1. Salvation Army Branch. Old Tafo.
2. Wesley Methodist. Old Tafo.
3. Presby. Bohyen.
4. Presby. Ahinsan.
5. Presby. Yennyawoso.
6. Wesley Methodist. Asawase.
7. Presby. Oforikrom.
8. Presby. Santasi.
9. Presby. Patasi.
10. St Cyprians. St Annes church. Ash town.

SUNDRY RELATED MISSIONS

11. Church of Christ. Bantama.
12. Resurrection Power Evangelistic Ministry (RPEM). N. Kaasi
13. RPEM. S. Kaasi
14. RPEM. New Tafo.
15. Church of Christ. Oforikrom.
16. Church of Christ central, Ellen Whyte Prep school.
17. Church of Christ. Suame.
18. RPEM. Tarkwa Maakro.
19. RPEM. Ash Town.
20. church of the Lord Brotherhood. Head Office.
21. RPEM. Danyame.
22. RPEM. Old Tafo
23. Church of Lord Brotherhood. Old Tafo.

GHANA PENTECOSTAL COUNCIL

24. Central Assemblies of God. Adiebeba.
25. " " " " S. Suntreso
26. " " " " Pankrono
27. " " " " Kwadaso
28. " " " " Suame
29. " " " " Oforikrom
30. Bethel assemblies of God Ayiga.

AFRICAN INDEPENDENT

31. House of faith ministries.
32. Musama Disco Christo Church. Amakrom
33. " " " " Kwadaso
34. Abedengo Incarnation Church
35. MDCC. Bebu (Opku ware).

SEVENTH DAY ADVENTISTS

36. South Suntreso
37. New Suame
38. Sepe-Buokrom
39. Duase
40. Tafo Nhyuaeso
41. Asuoyeboah
42. Main Office.

ROMAN CATHOLIC CHURCHES

43. New Tafo Parish
44. S. Suntreso Parish
45. OWASS Chaplaincy
46. Suame Parish.

8. DOES THIS PERSON HAVE LINKS WITH OTHER BRANCHES OF YOUR CHURCH?
YES (SEE 9) NO

9. IF YES WHICH BRANCHES?
.....
.....

10. ARE HEALTH EDUCATION ACTIVITIES IN YOUR BRANCH COORDINATED THROUGH THE MAIN CHURCH OFFICE?
YES (SEE 11) NO (SEE 12)

11. IF YES PLEASE GIVE THE NAME AND POSITION OF THE PERSON RESPONSIBLE
.....
.....
.....

12. IF NO, HOW ARE HEALTH EDUCATION ACTIVITIES COORDINATED IN YOUR BRANCH?
.....
.....
.....
.....

13. HAVE YOU INVITED HEALTH WORKERS, TEACHERS OR OTHER HEALTH EDUCATION AGENTS TO GIVE TALKS AND SHOW FILMS AT YOUR CHURCH?
YES (SEE 14) NO

14. IF YES PLEASE GIVE EXAMPLES OF THESE ACTIVITIES AND THE PEOPLE WHO CARRIED OUT THE HEALTH EDUCATION?
.....
.....
.....
.....

15. DOES YOUR CHURCH HAVE A BUDGET FOR HEALTH EDUCATION ACTIVITIES?
YES NO

16. DOES YOUR CHURCH HAVE ACCESS TO TRANSPORT FOR PURPOSES OF HEALTH EDUCATION.
YES NO

17. DOES YOUR CHURCH HAVE ACCESS TO A TEACHING HALL/ROOM FOR THE PURPOSES OF HEALTH EDUCATION?

YES NO

18. DOES YOUR CHURCH HAVE ACCESS TO EQUIPMENT SUCH AS FILM PROJECTORS OR SLIDE PROJECTORS FOR HEALTH EDUCATION?

YES NO

19. DOES YOUR CHURCH HAVE ACCESS TO RESOURCES SUCH AS PAPER, PENS, BLACKBOARDS FOR PURPOSES OF HEALTH EDUCATION?

YES NO

20. ARE THERE ANY OTHER EQUIPMENT, RESOURCES OR MATERIALS NOT MENTIONED THAT YOUR CHURCH HAS ACCESS TO FOR PURPOSES OF HEALTH EDUCATION?

YES (SEE 21) NO

21. IF YES PLEASE STATE WHAT

.....
.....

22. WOULD YOUR CHURCH BE WILLING TO PAY A SMALL FEE TO BORROW EQUIPMENT AND RESOURCES?

YES NO (SEE 23)

23. IF NO PLEASE STATE WHY

.....
.....
.....

24. WOULD YOUR CHURCH BE WILLING TO PAY A SMALL FEE TO RECEIVE HEALTH EDUCATION TALKS AND FILMS?

YES NO (SEE 25)

25. IF NO PLEASE STATE WHY

.....
.....
.....

THANK YOU FOR YOUR COOPERATION.

APPENDIX 5

KEY INFORMANT INTERVIEWS WITH CHRISTIAN CHURCH LEADERS
DISCUSSION OUTLINE

1. WHAT ARRANGEMENTS HAVE YOUR CHURCH MADE TO COORDINATE HEALTH EDUCATION ACTIVITIES?

STRUCTURE AT THE NATIONAL, REGIONAL, DISTRICT OR DIOCESE LEVELS.

NAMES AND ADDRESSES OF CONTACTS

ORGANOGRAM

2. WHAT RESOURCES HAVE BEEN MADE AVAILABLE BY YOUR CHURCH FOR HEALTH EDUCATION?

A BUDGET
EQUIPMENT
VEHICLES
PERSONNEL
STATIONARY

AT THE NATIONAL, REGIONAL, DISTRICT AND DIOCESES

3. DOES YOUR CHURCH ARRANGE MEETINGS, WORKSHOPS, SEMINARS OR CONFERENCES FOR HEALTH ISSUES.

WHEN, WHO ATTENDS, WHERE, FOR WHICH LEVELS?

4. WHAT TYPE OF HEALTH EDUCATION ACTIVITIES HAS YOUR LOCAL CHURCH BEING INVOLVED IN?

WHO COORDINATES THESE ACTIVITIES?

WOULD YOU BE WILLING TO PAY FOR HEALTH EDUCATION TALKS/ACTIVITIES?

HOW MUCH WOULD YOU BE WILLING TO PAY?

WHERE WOULD THE MONEY COME FROM?

5. DOES YOUR CHURCH HAVE SUB GROUPS THROUGH WHICH HEALTH EDUCATION COULD BE CONDUCTED?

CHILDRENS SUNDAY SCHOOLS
WOMENS GROUPS ETC,

6. DOES YOUR CHURCH HAVE PEOPLE WHO COULD BE TRAINED AS HEALTH EDUCATORS?

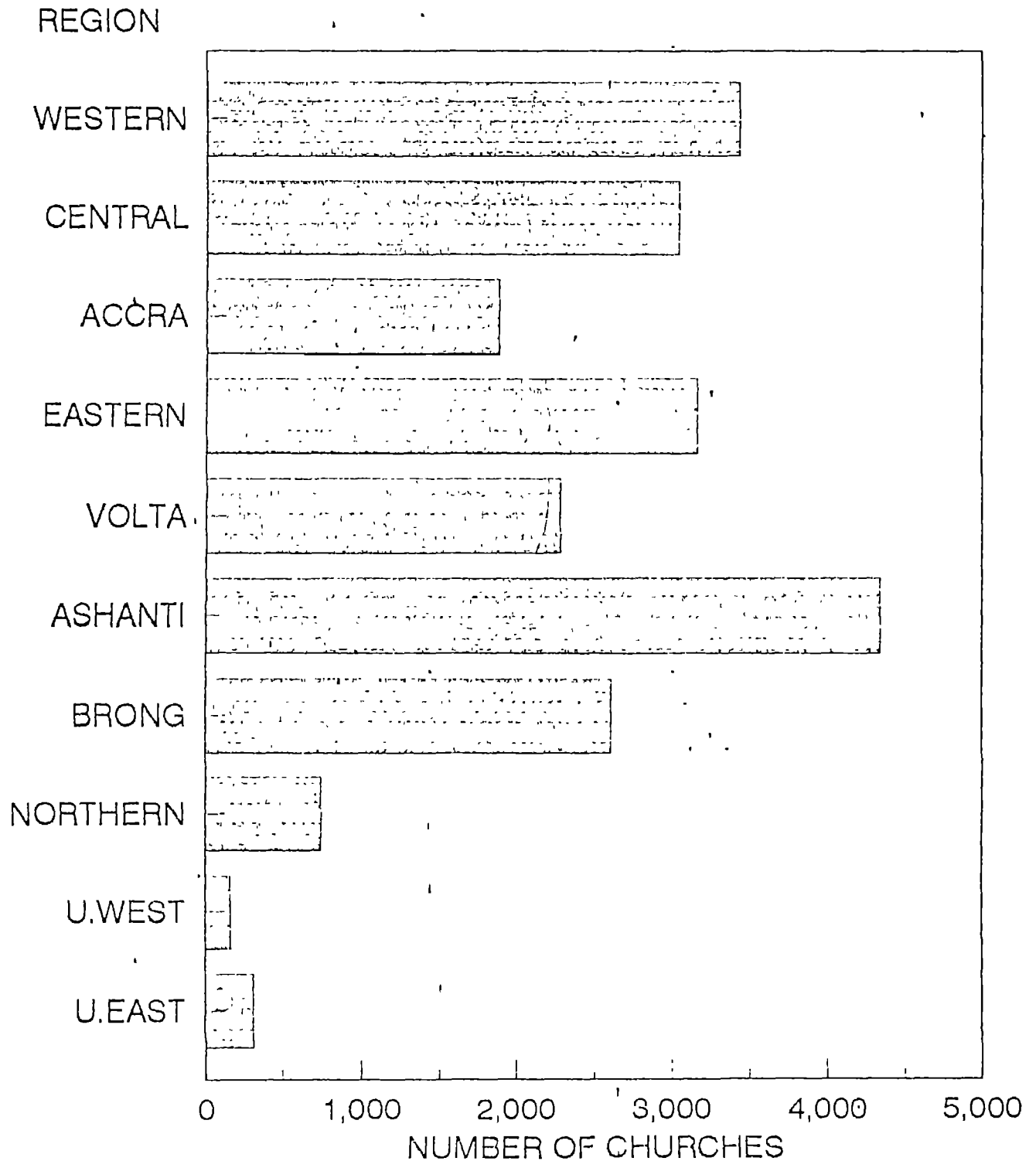
THEIR BACKGROUNDS/ POSITION IN THE CHURCH

7. WHEN/WHERE ARE THE BEST OPPORTUNITIES TO CARRY OUT HEALTH EDUCATION IN YOUR CHURCH.

ANY ISSUES SENSITIVE TO YOUR CHURCH

TOTAL NUMBER OF CHRISTIAN CHURCHES BY REGION IN GHANA.

SOURCE: NATIONAL CHURCH SURVEY, 1985-89.

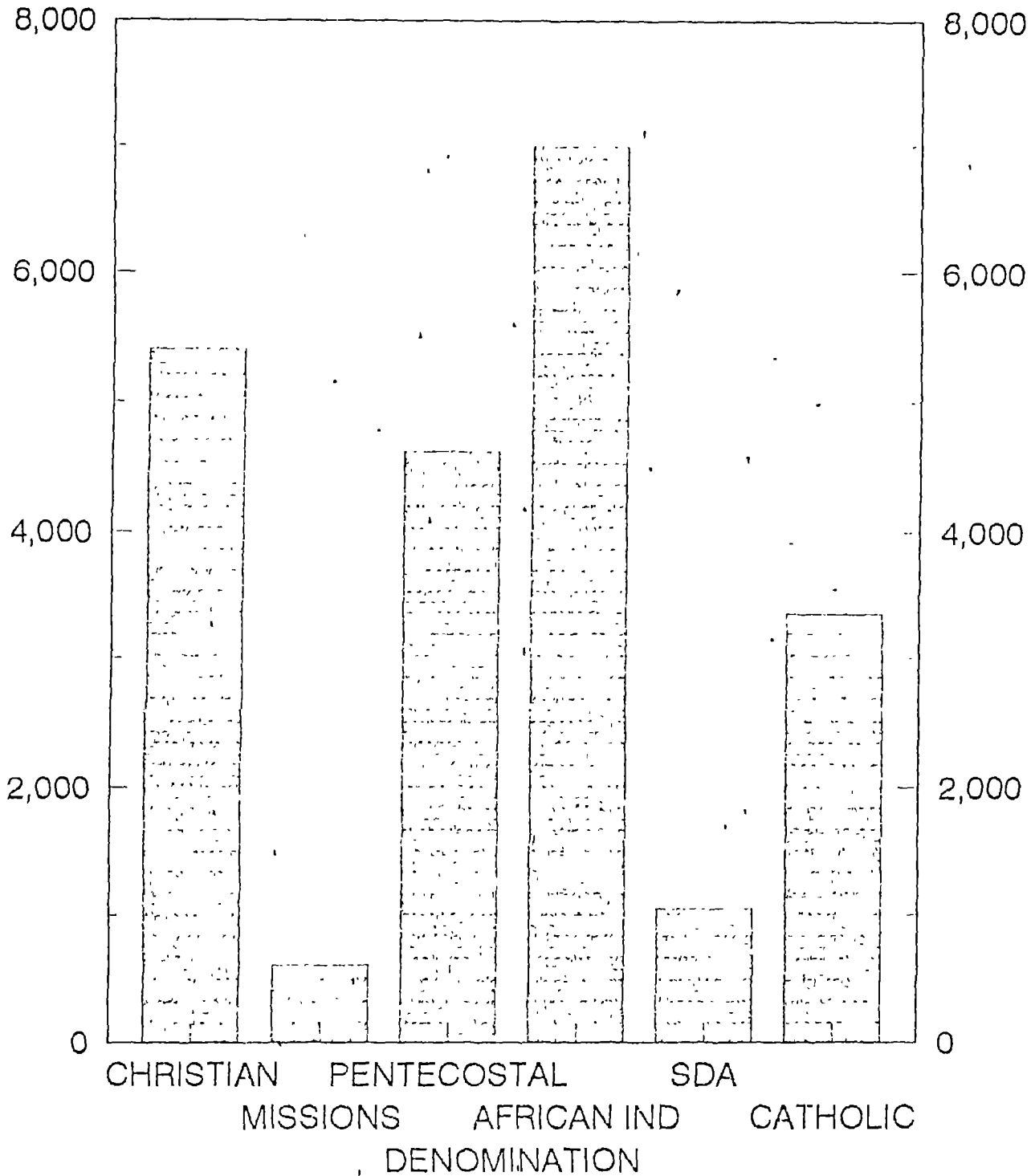


GRAPH 1.

TOTAL NUMBER OF CHRISTIAN CHURCHES IN GHANA BY DENOMINATIONS.

SOURCE: NATIONAL CHURCH SURVEY 1985-89.

NUMBER OF CHURCHES

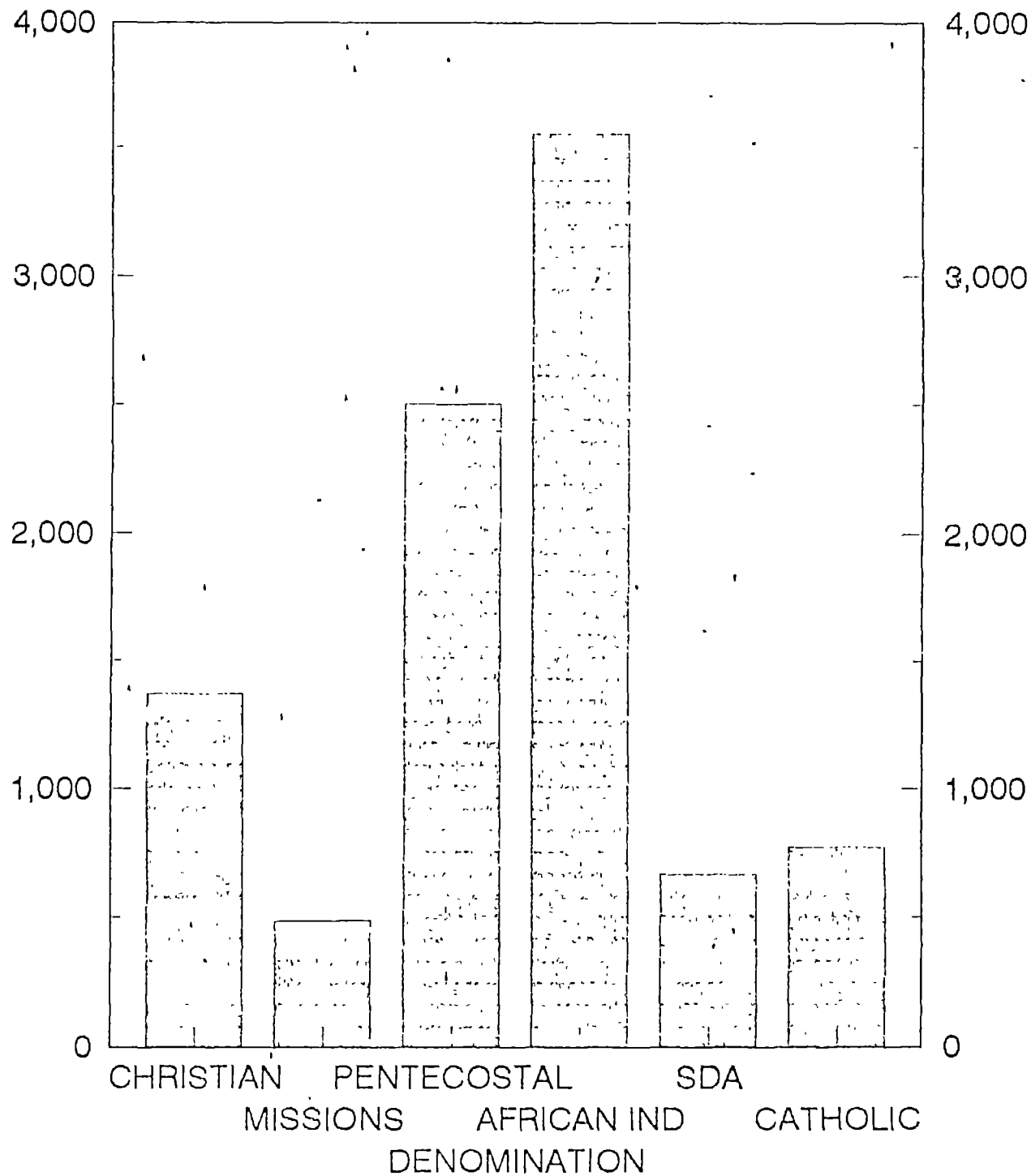


GRAPH 2.

THE NUMBER OF NEW CHURCHES ESTABLISHED FROM
1979 TO 1989.

SOURCE: NATIONAL CHURCH SURVEY 1985-89.

CHURCHES ESTABLISHED

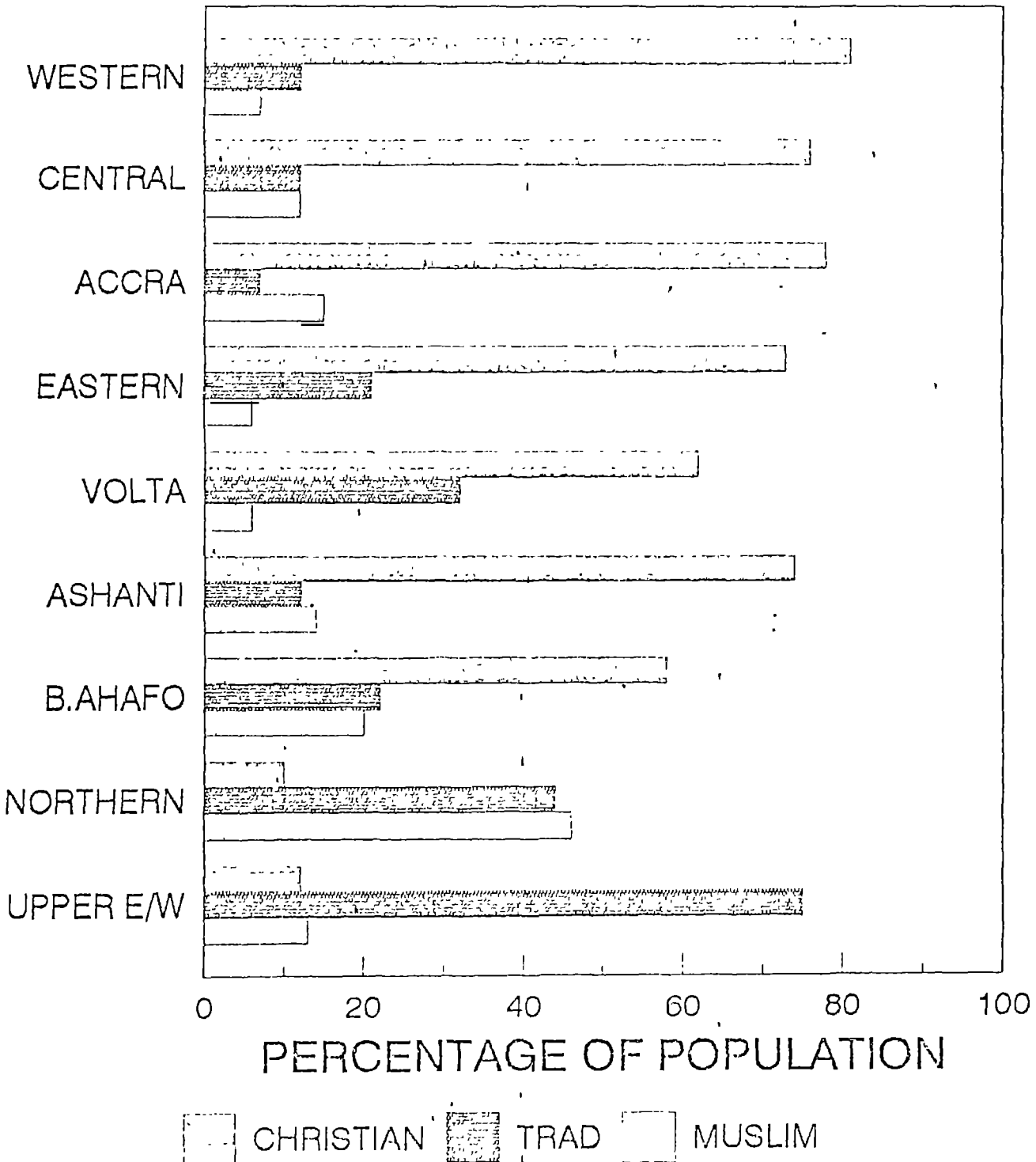


GRAPH 3.

RELIGIOUS AFFILIATION BY REGION

SOURCE: NATIONAL CHURCH SURVEY 1985-89

REGION

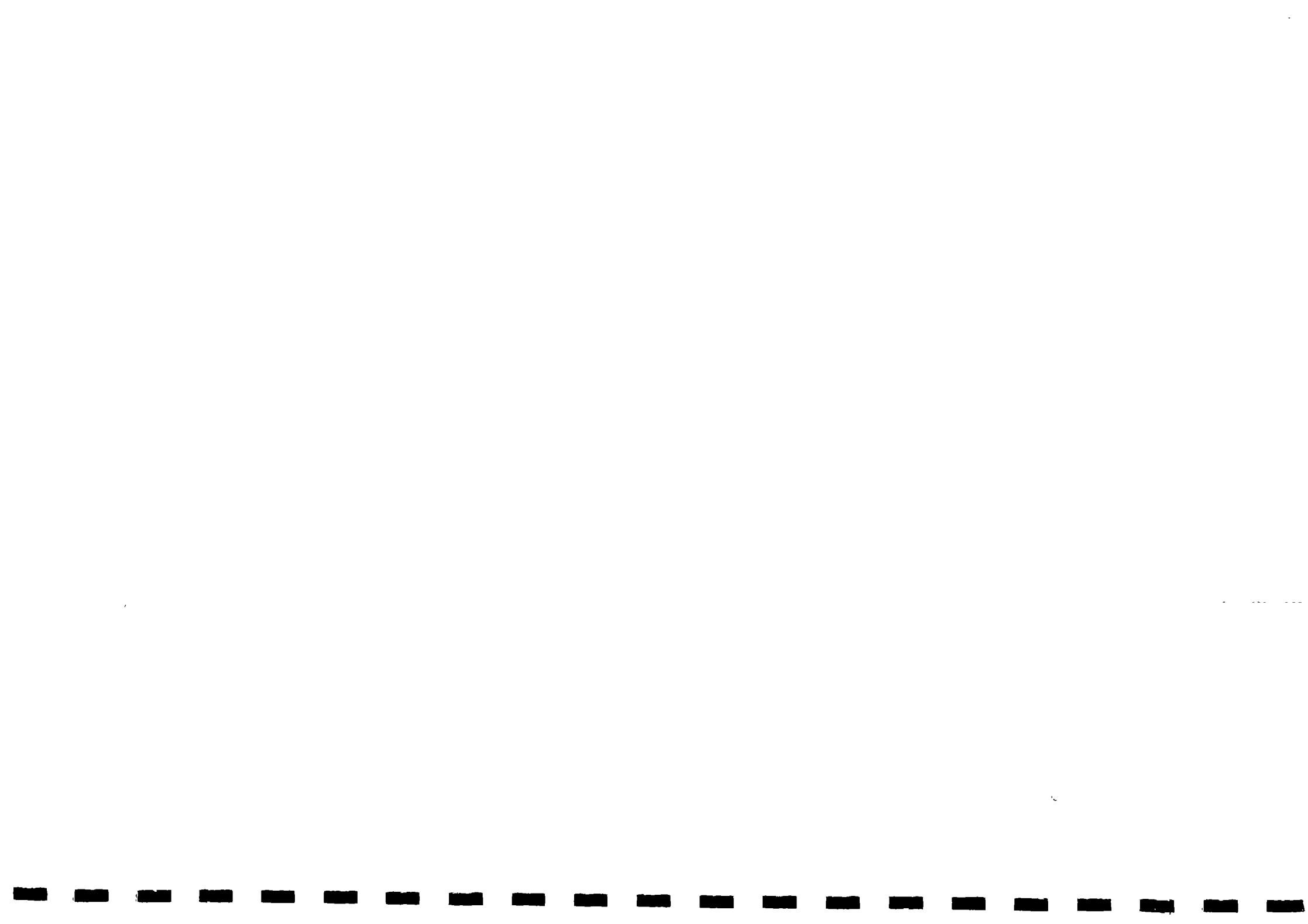


GRAPH 4

AN INVESTIGATION INTO THE UTILISATION OF NON-FORMAL EDUCATION FACILITATORS AS HEALTH EDUCATION AGENTS



**PRINCIPAL INVESTIGATOR
PETER EDUFUL**



SUMMARY

The findings of this study show that the NFE facilitators provide an appropriate opportunity to carry out health education activities using non-literate materials and materials in local languages to supplement teaching sessions. The flashcards and flipcharts were found to be the most popular materials. It was found that many facilitators are committed to their responsibilities, and they love their respective classes despite the fact that they are denied of their promised incentives.

The facilitators need to have adequate information on the health topics in the primer series and on general health issues. Incentives for the facilitators and supervisors need to be seriously considered.

The lack of incentives resulted in a low level of motivation being expressed by many facilitators and this determined that it would be presently inappropriate to utilise these agents until their motivational level had improved.

One of the objectives of the research element of the Kumasi Health Education Unit is:

The identification of the most suitable Health Education Agents at the :

- a. District and
- b. Community levels.

With this background, the Non Formal Education facilitators could be one of the many potential agents of Health Education who need to be examined with keen interest.

"The potentials of the range of public and private sector personnel at the District and Community levels, in institutions, churches and NGOs to be utilized for the purpose of Health Education has not been fully examined".

The Non Formal Education facilitators who have been appointed by the Non Formal Education Division of the Ministry of Education, to teach the illiterate adult how to read and write in the local language could surely be used to disseminate health messages to the learners.

In Ghana, literacy is not seen as an end in itself but as a means to economic, social and political development and as a first step towards the introduction of a more systematic approach to problem solving.

The functional literacy programme is therefore expected to have a more positive impact on Agriculture productivity, environmental protection the status of women, a reduction in the birth rate and improvement in national indicators of physical health.

Since the basic goal of any health development process is to help its people to attain a level of health that at least enables them to participate actively in the social and economic life of the community in which they live, it is always essential to have the potentials who will be the agents and channels through whom the community will learn and be aware of their health rights.

The Kumasi Health Education Unit is therefore up to raise the health status of the people and to enable them to have the necessary health information to change their attitudes towards poor health practices. To achieve this there is the need for detailed and accurate information to be given to personnel or agents who are supposed to be and serve as channels of information to the community.

This study will therefore examine the possibility of utilising the Non Formal Education facilitators as Health Education Agents, and whether or not the Ministry of Health could work in collaboration with them through the Ghana Education Service to disseminate health messages.

The study will again look at the organisational structure of the Non Formal Education Division and the educational background of

the facilitators. The criteria for the selection of the facilitators the course content and syllabus will similarly be looked at, another area that will also need attention are the meeting periods and the duration of the meetings of the facilitators with their learners.

Finally, the study will look at how best Health Education could be incorporated into their programme. When this information is obtained the Health Education Unit will be in the best position to take a firm and accurate decision which is not based on assumptions nor unjustifiable conclusions.

The implementation and follow up of the findings will consequently lead to the achievements of the desired objectives.

OVERALL AIM:

To identify suitable Health Education Agents at the :

- a. District and
- b. Community levels.

SPECIFIC OBJECTIVES

To examine the possibility and suitability of using the Non Formal Education facilitators as agents of Health Education.

To enable the Health Education Unit to have the proper understanding of the set up of the Non Formal Education system in Ghana.

To provide Ministry of Health with the necessary information on the possibility of working together to disseminate health information through the Non Formal Education programme.

To enable the Kumasi Health Education Unit to develop appropriate Health Education materials that will help to educate the Non Formal Education learners.

RESEARCH METHODOLOGY

SELECTION OF SAMPLE POPULATION

The study shall not cover the whole of the sample frame of 92 facilitators in the District. A sample size of 30 facilitators will be selected.

SIMPLE RANDOM SAMPLING

Simple Random Sampling method will be used in selecting the sample size. With our sample frame of 92 facilitators, a numbered list of individual facilitators will be written, from which 30 facilitators will be selected by using Simple Random Sampling, ie by random number tables.

PLAN FOR DATA COLLECTION

Personnel to be involved

The following personnel will be involved in the data collection;

- (a) One facilitator
- (b) One recorder
- (c) One assistant

FOCUS GROUP DISCUSSIONS

Discussion guideline

A discussion guideline will be developed for the discussion (see appendix 1).

Participants for the Focus Group Discussions

30 NFE facilitators were invited for the focus group discussion in three groups of ten.

The venue will be the Health Education Unit (Lecture Room). A tape recorder will be used to record all discussions.

The purpose of the focus group discussions include the following;

To obtain in depth information on the concept, perception and ideas of the groups on how best to introduce Health education through the Non Formal programme and how best they are going to assist or serve as agents of Health Education in the District.

The discussion shall also highlight on how best the Health Education Unit will assist in developing appropriate health education materials to be used by the Non Formal Education classes.

PRETEST

One day pretest of the discussion guideline will be organised for ten Non Formal Education facilitators who do not form part of the already selected 30 candidates. Necessary modifications in the discussion guideline will then be made before the actual focus group discussion.

KEY INFORMANT INTERVIEW

The key informants will be carried out with the following personnel:

1. The national coordinator in Accra
2. The Head of the Material Development Section, Accra
3. The Regional Coordinator in Kumasi
4. The District Organiser in Kumasi

From the above key informants, information will be required from the following areas:

The set up of the Non Formal Education both from the District to the national level.

Future plans of the Division in expanding the programme. Other vital information that will assist in future planning and development of health education materials.

The possibility of involving the facilitators in health education and how they will assist to incorporate health education into the Non Formal Education programme.

VISIT TO THE NON FORMAL EDUCATION OFFICE IN ACCRA

A three day working visit will be arranged to enable a member of the research team to travel to Accra to have discussions on the above issues with the national coordinator or his assistants. The material development section of the Division shall also be visited.

DATA ANALYSIS

Process

After each focus group discussion, the facilitator and the recorder will meet to review and complete the notes taken during the meeting. At the same time evaluating the process of the focus group to see how the discussion went and what changes might be made during future discussions. A full report will then be prepared which addresses main points of the discussions and which reflects the discussions as completely as possible using the participants own words. Key statements, ideas and attitudes expressed for each topic will be listed.

Additional questions will be formulated and included in the next focus group discussion if certain issues are unclear.

Statements of each group will be categorised for each topic and answers of different groups compared. A summary of the discussions will then be made.

Finally, the most useful quotations that emerged from the discussions which illustrates the main ideas will be selected.

THE FINDINGS

a. KEY INFORMANT INTERVIEW

The interview was carried out in English and at the offices of the respective key informant. Each interview lasted for between 60 and 90 minutes. The interview was carried out according to the outline.

THE NATIONAL LEVEL

The National Programme manager was interviewed instead of the National Coordinator however the National coordinator was briefly interviewed to clarify a few points.

1. HOW IS YOUR ORGANIZATIONAL STRUCTURE LIKE, AND HOW DOES IT OPERATE FROM THE NATIONAL LEVEL TO THE DISTRICT LEVEL ?

The field Operations Section (FOS) is the core of the delivery system and is responsible for the operation of Regional and District Officers and the training of facilitators and Supervisors. The provision of a functional literacy programme requires good support services from the core management of the Non Formal Education Division. That responsibility rests with two closely related Subdivisions of the organization; the materials Development Section and the field operations section.

Between the two Subdivisions they cover all Specialist activities in support of the programme delivery. (see annex. 2 for National organizational structure). The sections are staffed by specialist personnel in a wide variety of disciplines ranging from linguistics through graphic arts, theatre and radio production to logistics, Community Development and Social mobilization.

The FOS in real terms does not nor is it meant to provide literacy classes directly. Its main function is to promote the national literacy campaign and to service the activities of Regional and District Offices through the activities of Regional and District Offices through the supply of materials and the training of personnel.

While the organizational structure of the Non formal Education, Separate Material Development Section and field operation service for administrative purposes, in reality their close association is essential to the efficient functioning of the functional Literacy Programme. The production of materials needs close collaboration to ensure the relevance and effectiveness of primers and other teaching aids.

REGIONAL AND DISTRICT STRUCTURES:

Each of the 10 Regional Offices is headed by a Regional Coordinator. He is supported by a Regional advisory committee and five other staff specialists whose duty is to give training in community organization, media and other programme responsibilities. A 14 member training team drawn from institutions with training expertise within the Region also support the Regional Coordinator. They undertake what is referred to as the "Casket Approach" training strategy. This means that they train, trainers at the District Levels who in turn undertake the training of larger numbers of Voluntary Supervisors and facilitators involved in service delivery.

DISTRICT LEVEL

At the District level, he explained that the same structure is developed which is the keystone for the delivery of services

throughout the government.

At the District level the main responsibility for the administration of the functional literacy programme rests with the district organiser who is supported by a District advisory committee and a staff of six specialists focusing on logistics, media programming, women in development and research, evaluation and monitoring.

To disseminate information from the governmental levels, the Regional and District ministers are the chairmen to both the Regional and District committees.

The District Training Teams are similarly drawn from expertise within the Region and on a consultancy basis who provide training for volunteers concerned in the supervision of classes and teachers.

Summing up, there are 11,000 classes in the whole country with about 300,000 learners (see annex 4 for Distribution of learners by language) and 800 supervisors. Similarly there are 770 District training team officers.

3. FACILITATORS

i. WHAT IS THE CRITERIA FOR SELECTING THE FACILITATORS ?

No formal criteria is used in selecting the facilitators. Provided the individual could read, write and has the minimum qualification of the Middle School Leaving Certificate. Farmers and fishermen are all qualified to be facilitators but he must be someone who stays in the community.

ii. WHO SELECTS THEM ?

Since the programme is community based, the facilitators are selected by the people. They are either nominated by a church, moslem group, social group or an organisation and the list of the nominated candidates sent to the Non Formal Education Division who in turn organise training sessions for them before assuming duty.

iii. ARE THEY PAID, IF THEY ARE NOT DO YOU GIVE THEM ANY INCENTIVES ?

Given the fact that the literacy programme is based on unpaid volunteer facilitators and supervisors, NFED has seen a need to provide them with some form of incentives to elicit their participation and maintain their enthusiasm and commitment over a number of years.

Thus far radios have been made available to many of the facilitators and supervisors in the pilot areas. With the expansion of the programme, a more comprehensive system of incentives and reward has been structured to encourage both a high level of commitment to the programme as well as a high standard of performance.

Probing into this question whether the incentives have been forthcoming, the National Programme Officer confessed, that due to administrative difficulties, it has not been very easy to implement the package fully, however, he explained that some achievements have been made.

4. COURSE CONTENTS

i. WHAT HEALTH TOPICS DO YOU HAVE IN YOUR PRIMER SERIES ?

There are 28 lessons (topics) in the first cycle of basic literacy course, each is expected to take about 8 hours. Out of these topics 10 deals with health. These are:

1. Family Planning
2. Teenage Pregnancy
3. Nutrition
4. Safe Drinking water
5. Safe Motherhood and Child Care
6. Immunization
7. AIDS
8. Environmental Hygiene
10. Drug Abuse

For the main topics covered in these lessons see Annex 5. The topics or lessons follow a number of systematized steps ensuring that the material is fully covered, making every effort to avoid repetitions to sustain learners interest. Picture codes are used in each lesson which relate to the daily lives of the people. Discussions are generated, issues are raised and practical ways of solving problems and the relationship between the issues are discussed. Through the discussions, learners are led to the main "key word" of the lesson and its component syllable is then taught.

ii. DO YOU USE VISUAL AIDS IN YOUR LESSONS ?

Almost every topic in the primer use a form of visual aid for easy communication. They are used to generate discussions among learners during classes.

iii. DO YOU THINK THAT THE USE OF VISUAL AIDS WILL ENHANCE THE FACILITATORS TEACHING SKILLS AND WILL HELP LEARNERS' EASY REMEMBRANCE ?

Sure! due to its nature of generating discussions among the class.

5. LEARNERS

i. DO YOU FOLLOW ANY PROCEDURE IN ENLISTING LEARNERS FOR THE PROGRAMME ?

No strict procedure is followed. The desire and the interest of the learner to learn how to read and write is the main criteria. The learner must be some one who is willing to continue with the class. Preferably the learner must be some one who stays in the community, however the learner is always confronted with the

following problems;

a. Lack of time on the part of learners;

Since an adult plays several roles in the society, it becomes difficult for them to enrol as learners. They feel that they will be too tired to be regular in class and therefore many do not enrol for the studies.

b. Fear of failure.

An adult learner has the fear that he/she will not be able to make it i.e. read and write. This happens especially when the class is made up of children and adults where the children learn faster than the adults.

c. Exposure of one's illiteracy; men holding certain high positions in the society feel humiliated to expose themselves as being illiterate.

ii. DO THE LEARNERS PAY ANY FEE FOR THE MATERIALS GIVEN THEM AND ALSO FOR THE TUTORIALS, THEY RECEIVE ?

No! no charge is imposed.

iii. DO YOU GIVE CERTIFICATES WHEN AN ADULT LEARNER GRADUATES ?

Certificates of recognition are given to those who graduate based on the following;

a. If a learner attends classes four times a week each of 2 hours for 8 months, learner is sufficiently knowledgeable and is able to read and write. After a learner graduates a follow up is made to ascertain whether a learner is advancing or lapsing into illiteracy. This is done by obtaining information on the learner whether he is patronising the post literacy, rural newspaper or the rural library which the Division is promoting.

EXAMINATIONS

Asked whether the learners are assessed through written examinations, the programme officer explained that, examinations will scare them away since even in our colleges students are scared, however this may be considered in the future.

7. PRIMERS

HOW ARE YOU EVALUATING THE EFFECTIVENESS OF THE PRIMERS ?

Periodic research is conducted into the learning process and pretesting of all materials, are carried out before usage.

8. OTHER INFORMATION

i. Will you give any other information that will help the Kumasi Health Education Unit in developing materials for the programme.

This was referred to the Material Development section to be discussed.

9. MATERIALS DEVELOPMENT

i. CAN YOU GIVE ANY FORM OF ASSISTANCE EITHER.

a. Personnel b. Material to the unit, if the Kumasi Health Education Unit decided to organise a workshop to develop teaching materials in the local language for the programme.

The NFED will be prepared to give any form of assistance and this will depend on the level of collaboration between the Unit and the NFED. There should be a link between our Regional office and whatever proposal that will be drawn should be communicated to the National Level. In case the Kumasi Health Education Unit organises a workshop in developing materials in the local language we will be prepared to let our language specialist come to assist.

NATIONAL COORDINATOR (NFED)

This issue was further discussed with the National Coordinator Mr. R. J. Mettle-Nunoo. He confirmed the previous discussions with the National Programme Manager. According to him the NFED is prepared to assist with a linguistic specialist provided the NFED will agree with the Unit on the process and the formatting of the programme.

MATERIAL DEVELOPMENT SECTION OF THE NFED

The main discussions here centred on any other information that will be needed to help the Kumasi Health Education unit to develop appropriate material for the programme.

A group discussion was organised between the key staff which lasted for about 30-45 minutes. After the discussion it was concluded that, there should be a workshop for the two Unit to come together to share ideas on how best to develop appropriate health education materials for the programme.

It was agreed that the material development section is prepared to delegate staff for such workshops.

It was again suggested that the Kumasi Health Education Unit could have the silk screen equipment to help the Unit develop some of her health education materials.

KEY INFORMANT INTERVIEW

i. REGIONAL COORDINATOR AND DISTRICT ORGANIZER

The interview dwelt mostly on Health Education materials and how best and useful they could be used to educate the NFE learners. Samples of all the materials were sent for the discussion.

1. HEALTH EDUCATION MATERIAL

i. DO YOU THINK THESE MATERIALS COULD BE USED TO SUPPLEMENT THE INFORMATION ON THE HEALTH TOPICS IN YOUR PRIMER SERIES ?

They will be very useful since these materials cover some of the health topics in the primers, a little push or assistance to the facilitators will really help them when treating these topics.

ii. WILL THEY BE WILLING TO ACT AS AGENTS OF HEALTH EDUCATION?

That will not be a problem, because they function as such though unknowingly since they teach or educate their learners on these topics during their normal classes.

Please comment on these materials.

a. FLASH CARDS

If you expect the learners to use the cards individually then the explanatory notes should be in the local language and at the same time in bold letters to enable the learners read them by themselves.

On the other hand, if only the facilitators are going to use the materials, then I suggest that there should be a workshop organised for them to feed them with more and relevant information on the topics.

b. SNAKE AND LADDER GAME

This could be an interesting game and could be effectively used in communicating health messages to the learners, however, all the elaborations on it should be in the local language and preferably at the bottom of each picture. Since the cloth is very white it could be dirtied so easily by the users and it will be preferable if the game is printed on a hard card. If this is done, I think it could be effectively used in our classes.

c. DISCUSSION POSTERS

These posters generate a lot of discussions and will be really helpful in class. It helps them to see and think about the issues the pictures depicts. Instead of using cloth, hard cardboard may help since it is going to be handled daily.

d. OTHER GAME MATERIALS (EG. 3 PILE SORTING, STORY WITH A GAP)

The desire was expressed that they could all be useful but one major problem that should be solved was the translation of all

information to the local language.

Another area that may also hinder the effective usage of the "game educational materials" was that all the classes are held in evenings and many of these classes are not adequately lighted with exception of a few ones.

HEALTH EDUCATION UNIT

i. Mention some areas that you think the unit could assist the facilitators in educating the learners.

a. Film Shows

Film shows to the classes have been very helpful in many ways. This has rekindled their interest for the programme and new members have been added to the classes when they hear of the film shows. They can also learn better.

b. Lectures

From time to time, we shall be expecting you to organize health talks for the classes where the class will have the opportunity to ask you some questions that may be baffling them during classes.

c. Workshops

The facilitators will be brought up to date with current health issues and this will help them to educate their class more effectively, therefore workshops may from time to time be organised for them by the Unit.

TRANSLATION

The Unit was assured by the key informants that if there is the need to translate any materials into the local language e.g. Twi, Ewe, Grune, they will be prepared to assist with personnel who have specialized in the languages.

PROBLEMS

i. HAVE YOU DISCOVERED OR DISCUSSED ANY PROBLEM WITH THE FACILITATORS THAT MAY AFFECT THE PROGRESS OF THE PROGRAMME

a. The only one major problem which the facilitators have been complaining about everyday is the question of incentives that was promised them from the beginning of the programme.

Since the programme started 3 years ago in the Ashanti Region, no facilitator has received any incentive and this has really dampened their spirits for the programme.

It is only the district organizers who have been given motorbikes for monitoring the activities of the facilitators.

- b. Another area of concern is the position of head teachers who have been seconded to the NFE as supervisors. The head teachers were given allowances at their former schools but were denied of such allowances when they were seconded to the NFED. The contributions by these head teachers have not been very encouraging.
- c. Primers: Inadequacy of primers for some classes. Some of our districts have nothing at all others have but are inadequate which are not sufficient for all, the learners for that matter three or four learners may share one primer. The Asante , Twi primer are seriously inadequate or in short supply.

FOCUS GROUP DISCUSSIONS FINDINGS

1. MEETING PERIODS

i. When are your meeting days ?

All the groups meet at least 3 to 4 times a week from Monday to Friday, except that Bompata Church of Pentecost class meet on Saturdays and Kotei class also meet on Sundays from 5.00 pm to 6.30 pm to allow the Christians among them to attend the evening church service.

ii. What time do you meet ?

All the meetings are held in the evenings i.e. between 6.00 pm - 8.30 pm. According to the facilitators some of the learners are farmers and others include traders. Similarly some of the facilitators are farmers, government workers and traders. It was explained that the evenings are the only suitable time for the learners as well as the facilitators since the two groups are busy during the day.

2. INTEREST

i. Do you really enjoy facilitating your class ?

All the groups affirmed that they do enjoy facilitating their class.

ii. Do you have or face any problem that affects your interest for the programme ?

Many problems were stated by the facilitators:

PRIMERS:

"My class do not have enough primers to use, those supplied are inadequate".

INCENTIVES

"The promise of incentives have not been received for two years now".

ACCOMMODATION

"Our class are often interrupted by church services since we share common accommodation with churches".

CLASS DISTINCTION

It was disclosed that there exist class distinction in some of the classes and for that matter some learners withdraw.

CROWDED CHURCH ACTIVITIES:

Some of the problems mentioned by some Christian classes were crowded church activities which normally conflicts with class

periods.

ENCOURAGEMENT:

According to the facilitators some church executives discourage them. They even tell the learners "you are already grown, why do you bother yourself to learn, it is children who are to learn not adults". According to a facilitator a catechist told him "You have brought your own adult learning programme, apply to me before we grant you the church premises for your classes".

DISTANCE TO LEARNING PLACE:

Most of the classrooms or church premises are far away from the learners and this affects attendance.

LATENESS: "Learners are always late to attend classes".

IRREGULAR ATTENDANCE:

All the groups with the exception of the christian groups stated that irregular attendance always held the class back.

FARMERS AND FARMING SEASONS:

It was complained from some of the classes that during the farming seasons majority of the learners who are farmers do not attend classes and those who do, come late.

FACILITATORS MANUAL:

"I do not even have the facilitators manual and whenever I go to the office to ask for it they say it is finished".

"The churches pay for the light bills so they sometimes stop us for their church services".

"Appeal for funds by NFE from learners is collapsing the classes".

3. PAYMENT

i. ARE YOU PAID FOR THE WORK YOU DO ?

The answer from all the groups was NO!

ii. IF YOU ARE NOT PAID WHY DO YOU CONTINUE WITH YOUR CLASS ?

Very interesting and inspiring answers were given by the facilitators. Their answers indicated their devotedness to their job despite the fact that they are not paid. Some of the answers given included the following:

"It is a godly gesture".

"The good name I will receive from the learners is more important to me".

"I want to help the learners know their civic rights.

"I was a supervisor from the beginning but I was deceived and laid off, this is really discouraging, but I love the learners so I continued to be a facilitator".

"I want my class to be able to read the bible and know God, this has been my inspiration".

"We do not love money, we love our members else we would have stopped teaching them".

"We have committed ourselves to the learners and there is no turning back".

4. PROBLEMS

i. WOULD YOU MENTION SOME PROBLEMS THAT ARE LIKELY TO RETARD THE PROGRESS OF THE PROGRAMME ?

The major problems that were mentioned by all the groups likely to retard the progress of the programme was lack of incentives to facilitators and inadequacy of primers to learners. According to all the groups some facilitators spend their money in purchasing bulbs for their classes and for transport to meeting places without refund.

"In Kenya the NFE system has reached its peak because everything including facilitators allowance is borne by the central government, but in Ghana, the government make vague promises of incentives to us".

One other problem which facilitators laid much emphasis on was the question of appeal for funds from learners per instructions from the Regional Secretariat. "Learners are not even willing to buy their own exercise books how much more would they be prepared to contribute voluntarily".

5. COURSE CONTENTS

i. WHAT HEALTH TOPICS ARE THERE IN YOUR PRIMER SERIES ?

The following were mentioned;

- a. Family Planning
- b. Good Drinking Water
- c. Teenage Pregnancy
- d. Sanitation
- e. Nutrition

- f. AIDS
- g. Drug Abuse

ii. WOULD YOU NEED MORE INFORMATION ON THESE HEALTH TOPICS ?

All the groups expressed their desire to the Unit if the Unit will assist them to have more information on the health topics since the information in the primers are not very much detailed.

"We need wall charts and other posters for teaching our class".

"Some of us do not have the basic knowledge in some of the health topics so if you invite us in a seminar it will be good for us".

6. VISUAL AIDS

i. DO YOU THINK THAT VISUAL AIDS ON THESE HEALTH TOPICS WILL ENHANCE YOUR FACILITATING ABILITY ?

The answer was YES from all the groups - "It helps us to give fine presentations".

ii. WHAT WILL BE THE EFFECTS OF VISUAL AIDS ON YOUR LEARNERS ?

"Pictures generate their interest in the topic and generate more discussions".

"It helps them to think more and talk more because they see things for themselves".

iii. DO YOU USE ANY FORM OF VISUAL AIDS IN YOUR CLASS ?

"Sometimes other groups visit the class and use pictures in their demonstrations".

"As for me apart from what is in the primers, I do not use any visual aids".

Some of the facilitators complained about some of the pictures in the primers.

"Even the primer pictures on Family Planning is not good, the children in the ideal family are rather lean while those in other family are fatter".

During the discussions it was mentioned that, the facilitators are not allowed to use any material that has not been approved by the NFED.

"We are not allowed to use any form of material that has not been approved by the NFED".

A follow up was made on this statement to help us get the truth that any form of material used for the programme must be approved by the NFE. The regional coordinator explained: facilitators could use any visual aid that can help learners understand the topic in question.

MATERIALS FROM KUMASI HEALTH EDUCATION UNIT

All the major materials developed by the Unit were demonstrated on a table for facilitators to see and handle. The materials include the following:

- a. Discussion posters
- b. 3 pile sorting cards
- c. Snake and ladder game
- d. Flash cards on various topics

iv. DO YOU THINK YOU CAN USE THESE MATERIALS IN YOUR CLASS ?

All the groups admired the materials and agreed that the materials will be more useful to them in their classes.

v. WHICH OF THESE MATERIALS WILL BE MORE USEFUL ?

Not one of the materials was singled out to be more useful, the groups expressed their desire that all will be useful depending on the topic the material dealt with. However, few comments laid emphasis on the mosquito control and AIDS flash cards.

vi. WILL YOU SUGGEST ANY FORM OF MODIFICATION (TO SUIT YOUR CLASS) ?

The following comments were given by the groups on the various materials.

a. Discussion Posters

The size and the colours used makes it more attractive and educative for learners and does not need any modification, but there should be a means whereby the material could be hanged and left to suspend with the teacher removing the first leaf each time to the reverse side while using it.

While the facilitators are saying that the discussion posters should remain as it is the Regional Coordinator and the District organiser suggested that the white cloth will be dirty and rather hard cardboard should be used (as reported earlier).

b. Snake and Ladder Game

As much as the facilitators saw the need and the usefulness of this material in their classes few comments however were made.

i. Suitability

Wording on the game should be translated from english to twi or it should be a picture to picture eg. "I wash fruits" on the game should depict someone washing fruits.

ii. Quality

The white background cloth is likely to be dirty in no time, therefore hard neat cardboard will be more appropriate.

c. Flash Cards

"Change the english wordings to twi and print more copies for our class".

d. 3 Pile Sorting Cards

One group commented that it could be used alongside with the snake and ladder game. The other groups also agreed that the "good", "bad" and the "in between" should be in twi.

GENERAL PROBLEM EXPRESSED BY ALL GROUPS
ON THE HEALTH GAME MATERIALS

The general desire was that the snake and ladder game as well as the 3 pile sorting cards could conveniently be used to impact health messages to the learners but expressed their fear that since all the meeting periods are in the evenings and most classes do not have adequate lighting system the use of the materials will be difficult.

7. KUMASI HEALTH EDUCATION UNIT

- i. In what ways do you think the Kumasi Health Education Unit could assist in the effectiveness of the programme.

Many demands were made by all the groups which really showed that, they are looking unto the Unit for some form of help. The major comments made are as follows:

- "We need training on the health topics because some of us have little knowledge in health".
- "Bring us some of your teaching materials".
- "Come and show films on health to our class".
- "We need hand outs in twi which the learners can take home and read".

They also demanded that during our public film programme the unit should inform the public on the need of the people to enrol as learners since according to the facilitators the people's awareness about the programme is dying. It was concluded that "If more people come, more people will learn about health".

- ii. Would you be available in case KHEU intends to organize a material development workshop to develop materials for the programme ?

Contributions made by all the groups were that they will avail themselves and also copies of invitation letters should go to their various heads of departments. They also suggested that the national headquarters should also be informed through the regional NFE so that they can also participate.

iii. Could you give any suggestions that will help KHEU to assist the facilitators when they are teaching the learners on the health topics ? . '

Some issues raised earlier were stressed.

- The supply of twi hand outs on health topics to learners
- Organising workshops for facilitators on the health topics
- Intensification of film show programmes to NFE classes
- Visitation of KHEU staff to the various classes to give talks on health.
- There should be a relationship between the facilitators and the KHEU.

DISCUSSION OF THE FINDINGS

KEY INFORMANT INTERVIEW

From both the national and regional levels, it could be safely said that there is hope for the Ministry of Health (KHEU) to use the Non Formal Education facilitators as health education agents. At the national level, the NFE administration is prepared to offer any assistance in the development of health materials by delegating a language specialist to the unit to assist in the translation of any material from english to the local language.

Similarly the material development section of the NFE (national level) on the other hand is also willing to establish cordial relationship between the Kumasi Health Education Unit and their Division. They are willing to participate in any workshop in connection with material development for the programme.

At the Regional and District levels, close links have already been established and they have expressed their appreciation for the Unit's health education materials and suggested some modifications to be made to suit the NFE literacy classes in case these were to be adopted in the near future.

The NFE administration (national level) has assured the KHEU that provided the NFE Division will agree with the MOH (Kumasi Health Education Unit) on the process and the formatting of the language they will be willing and prepared to cooperate with the unit and will render any necessary assistance required to ensure the success of the programme.

From the Focus Group Discussions and the Key Informant Interviews, one sees a glaring possibility of using the Non Formal Education facilitators as potential agents for health education, provided some pressing issues that fight against the interest of the facilitators for the programme are effectively addressed. Other similar pertinent issues also need equal attention.

The following therefore need to be considered with all seriousness:

- Establishment of close link between the Non Formal Education Division (both national and district levels) and the Kumasi Health Education Unit.
- The need to upgrade facilitators knowledge and feed them with adequate and appropriate information on the various health topics in the primer series.
- Incentives/rewards for both facilitators and supervisors to maintain their volunteer enthusiasm for the programme.
- Provision of supplementary health materials, hand outs etc. based on the various health topics translated into the local language.

Before any meaningful start of the programme could be initiated, there is the need for a close link and agreement on all issues between the NFE Division and the Kumasi Health Education Unit.

The question of incentives for both facilitators and supervisors is also a very vital area which should also be tackled with all seriousness. Though the issue of incentives was continually mentioned through the discussions but emphasis was not laid on it as being a factor to stop them from the work they are doing but based on our findings in order to maintain their volunteering enthusiasm for the success of the programme, this should quickly be tackled.

For example, the supervisors who are supposed to supervise 15 classes each month and write their report are expected to be away from their homes usually at night for up to half the month, have been denied of their promised package of incentives which include:

- A bicycle and a radio for the first year.
- Sewing machine at the end of the second year.
- Motor bike at the end of the fourth year.

The facilitators on the other hand have an equally similar package. To maintain the effort of these volunteers whose participation is very critical to programme implementation a further postponement may seriously affect their enthusiasm.

It was observed that the NFE facilitators are an organised group who are alive to their volunteering responsibilities. This is a result of strong coordination between Regional/District secretariat and the facilitators.

The NFE classes have regular meeting days and regular membership. One remarkable observation made about the facilitators, considering the present economic crisis and individual commitment to families and social life, was that, despite the fact that they have been denied of a "a promised incentive" for their contributions they always have a deep desire to sacrifice for their members. This truth was revealed from all the groups during the discussions. Some of the comments made by the facilitators were as follows:

"We don't love money, we love the people of our class"
"We have committed ourselves to the members".

It also came out that the admiration and appreciation by their members (class) for their contributions is a great motivating factor that always ginger them on and set them on their toes to go all out for their respective classes in the absence of the "promised incentives".

On the whole, it is observed according to the findings that the overall commitment by the facilitators to their individual

classes as well as to the NFE Division was very high. This high commitment actually demonstrate their eagerness and willingness to act as agents of health education.

With this background, it will not be a mistake for one to affirm that the Ministry of Health (KHEU) could utilize the facilitators as channels or agents of health education in reaching the people.

CONCLUSION AND RECOMMENDATIONS

From the findings, the following conclusion is drawn with the adjoining recommendations.

It is observed that both the MOH (Kumasi Health Education Unit) and the Non Formal Education Division have equal responsibilities in ensuring the success and the effectiveness of the programme.

The following recommendations are therefore made:

1. RECOMMENDATIONS TO THE KHEU (MOH)

a. WORKSHOPS

The Kumasi Health Education Unit should organise in-service training for all the NFE facilitators in the district to upgrade their knowledge on the health topics which are in the primer series. The training should be a continuous process and the facilitators would be invited for the training from time to time so to ensure that they are brought to the current developments in health issues.

b. MATERIAL DEVELOPMENT

The Kumasi Health Education Unit should organise material development workshop to develop more educational materials and to translate the english language in the already developed materials being used by the Unit to suit the NFE class. This workshop should involve personnel from the national headquarters of the NFE.

c. FILM SHOW PROGRAMME

The Unit educational film show programme with the NFE class should be intensified. A tentative programme should therefore be drawn and must cover all the NFE classes in the district.

d. The Kumasi health Education Unit should as a matter of urgency purchase the silk screen apparatus to help the resource centre increase its equipment base in material development (advise on this could be sought from the NFE material development section in Accra).

e. The Kumasi Health Education Unit should develop hand outs on health topics in the local language for the NFE classes.

RECOMMENDATION TO THE DHMT

The DHMT in conjunction with the Kumasi Health Education Unit must organise health education programmes for the NFE classes on the following, immunisation, teenage pregnancy and AIDS. The district NFE organiser, and the facilitators must be involved.

RECOMMENDATIONS TO THE NFE

a. INCENTIVES

The issue of incentives should be addressed immediately to sustain the facilitators and supervisors enthusiasm, for the programme.

b. CLASSROOMS

Most of the classrooms for NFE classes have problem with lights and others have frequent clashes with evening church services. The NFE must therefore negotiate on behalf of these classes to ensure smooth running of the affected classes.

c. PUBLIC EDUCATION

The NFE division must as a matter of urgency continue with and intensify advertisement of the programme to encourage new entrants since the initial interest of the people is gradually dying down. This was disclosed by the facilitators that, in some classes as much as half of the learners who enrolled have stopped and new entrants have not registered.

d. The Field Operations Section should therefore intensify promotion campaigns on the National Literacy Programme.

REFERENCE

1. Designing and Conducting Health system Research Project
Vol 2 Part 1
By Corlien M. Vankevisser et al 1991
2. Research methods for Community Health and Welfare
Karl E. Palman 1980
3. Statistical method in Epidemiology
Kalim H et al 1989

Appendix 1

INVESTIGATION INTO POSSIBILITY OF USING NON FORMAL EDUCATION FACILITATORS AS HEALTH EDUCATION AGENTS

FOCUS GROUP DISCUSSION OUTLINE

1. Introduction

2. Meeting Periods

- (1) When are your meeting days?
- (ii) What time do you meet ?

3. Interest

- (1) Do you really enjoy facilitating your class ?
- (ii) Do you have or face any problem that affects your interest for the programme ?

4. Payment

- (1) Are you paid for the work you do ?
- (ii) If you are not paid, could you mention any motivating factor that helps to sustain your interest for the programme.

5. Problems

- (1) Would you mention some problems that are likely to retard the progress of the programme.

6. Course Contents

- (1) What health topics are in your primer series ?
- (ii) Would you need more information on these health topics ?

7. Visual Aids

- (1) Do you think visual aids on these health topics will enhance your facilitating ability ?
- (ii) What will be the effects of the visual aids on your learners
- (iii) Do you use any form of visual aids in your classes ?
- (iv) Do you think you can use these materials in your classes (show material).
- (v) Which of these will be more useful ?
- (vi) Would you suggest any form of modification ?

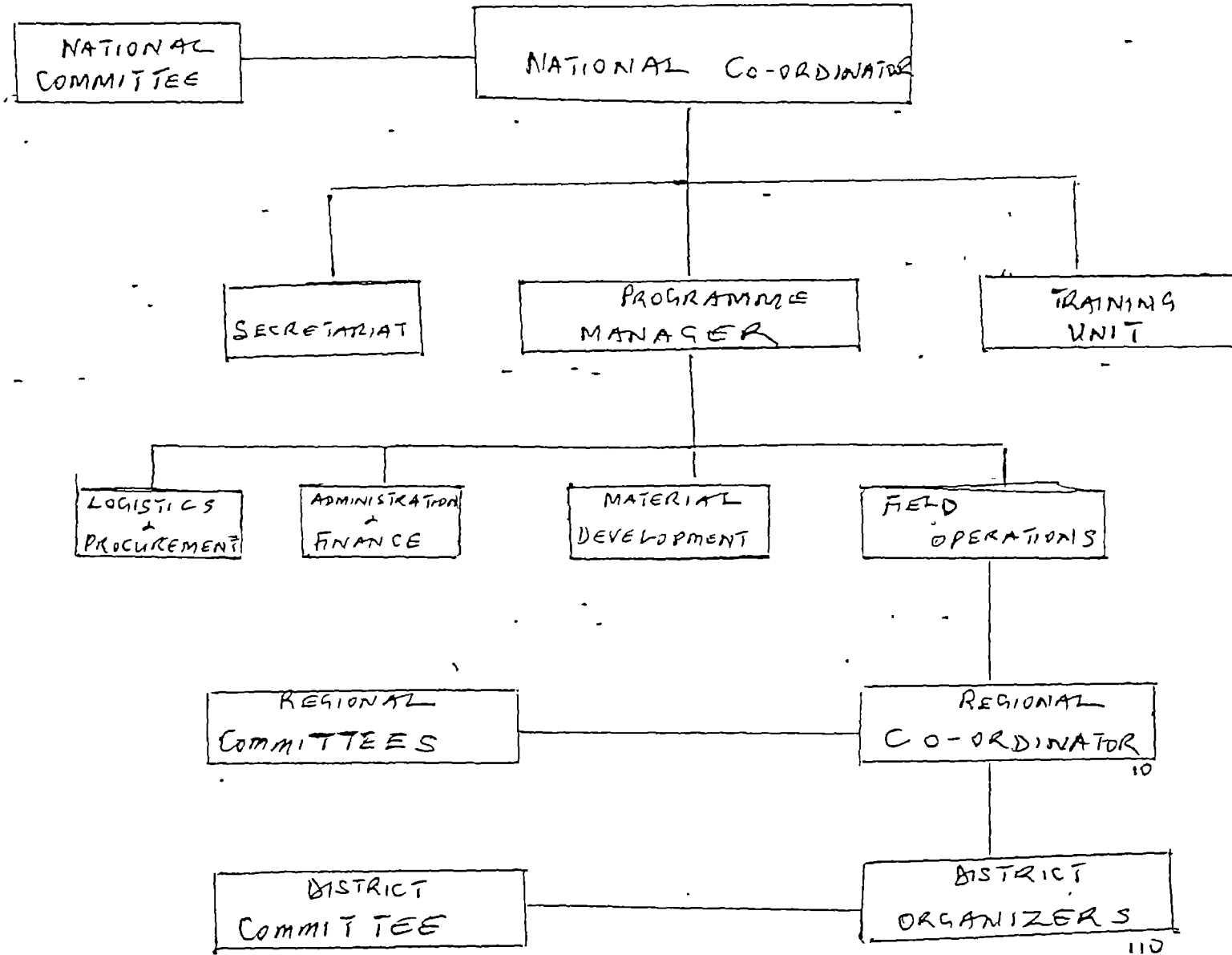
8. Health Education Unit

- (1) In what ways do you think the Kumasi Health Education Unit could assist in the effectiveness of the programme ?
- (ii) Would you be available in case the K.H.E.U. intends to organise a materials development workshop to develop material for the programme ?
- (iii) What assistance can you give in such workshop ?

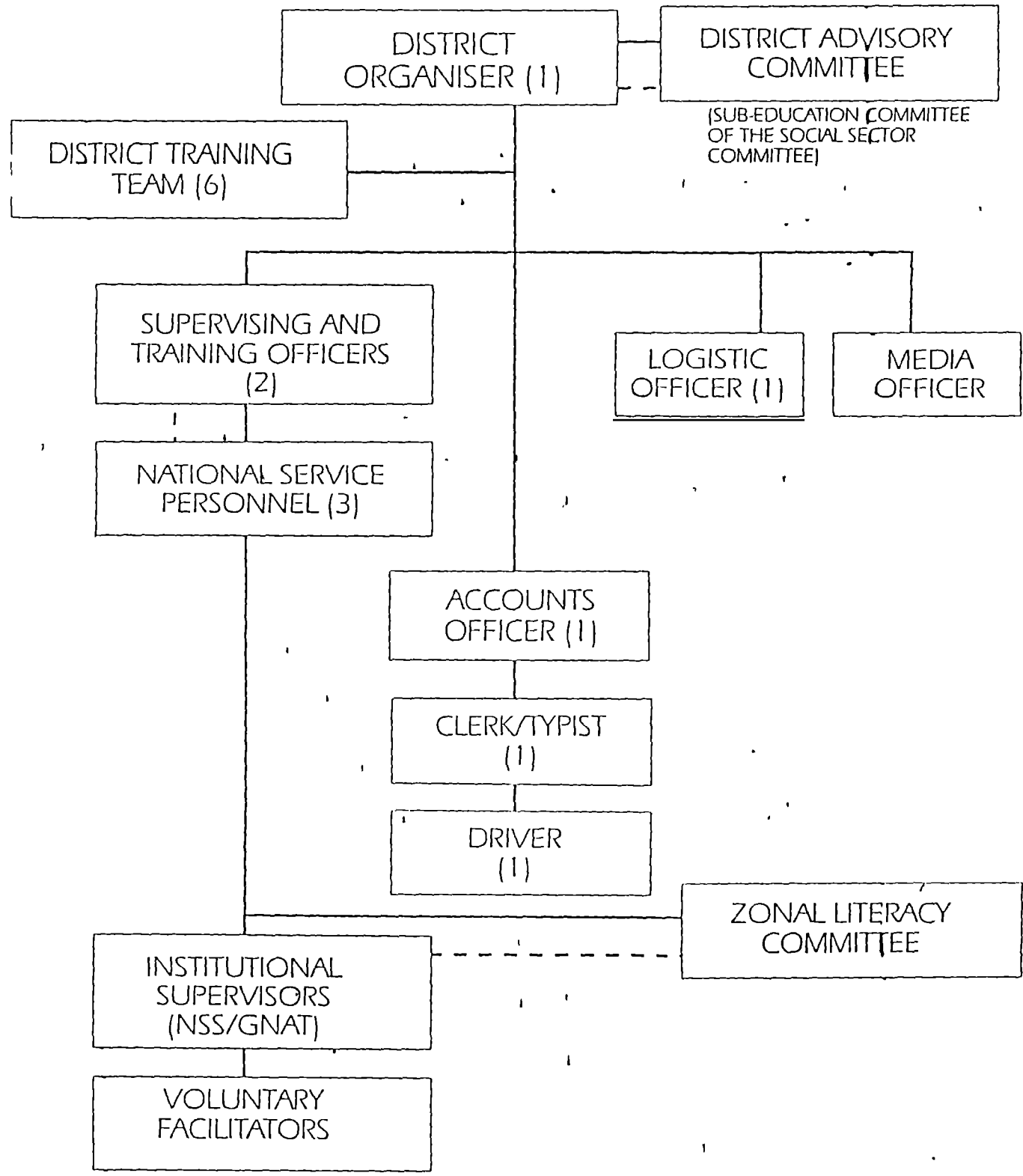
9. Suggestions

- (1) Could you give any suggestions that will help the K.H.E.U. to assist the facilitators when they are educating the learner on the health topics.

ADMINISTRATIVE STRUCTURE AT NATIONAL LEVEL



**NON-FORMAL EDUCATION DIVISION
NATIONAL FUNCTIONAL LITERACY PROGRAMME
ADMINISTRATIVE STRUCTURE AT DISTRICT LEVEL**



Republic of Ghana

Literacy and Functional Skills Project

DISTRIBUTION OF 300,000 LEARNERS BY LANGUAGE

GROUPS IN 1991

LANGUAGES	PERCENT	NUMBER
AKWAPIM TWI	9.0	27,000
ASANTE TWI	20.0	60,000
BULI	3.0	9,000
DAGAARE	5.0	15,000
DAGBANI	7.5	22,500
DANGBE	4.5	13,500
EWE	9.0	27,000
FANTE	7.5	22,500
GA	7.5	22,500
GONJA	4.0	12,000
GURUNE	4.0	12,000
KASEM	6.0	18,000
KUSAAL	3.0	9,000
NZEMA	5.0	15,000
SISSALI	5.0	15,000
TOTAL	100.0	300,000

Source: NFED, 1991

INVESTIGATIONS INTO THE POSSIBILITY OF USING
NON FORMAL EDUCATION FACILITATORS AS
AGENTS OF HEALTH EDUCATION

KEY INFORMANT INTERVIEW OUTLINE

1. INTRODUCTION
2. ORGANIZATIONAL STRUCTURE
 - (i) How is your organizational structure like, and how does it operate from the National Level to the District Level.
3. FACILITATORS
 - (ii) What is the criteria for selecting the faqilitators
 - (ii) Who select them?
 - (iii) Are they paid? if not do you give them any incentive?
4. COURSE CONTENTS
 - (i) What health topics do you have in your primer series?
 - (ii) Do you use visual aids in your lessons?
 - (iii) If so do you think that the use of visual aids (pictures) will enhance the facilitators teaching skills and will help learners easy remembrance?
5. LEARNERS
 - (i) Do you follow any special procedure in enlisting learners for the programme
 - (ii) Do the learners pay any fee for the materials given them and also for the tutorials they receive?
 - (iii) Do you give certificates when an adult learner graduate?
7. PRIMERS
 - (i) How are you evaluating the effectiveness of the primers
8. OTHER INFORMATION
 - (i) Will you give any other information that will help the Kumasi Health Education Unit in developing Health Education materials for the programme
8. MATERIAL DEVELOPMENT

Can you give any form of assistance either (a) Personnel (b) material to the unit

If the KHEU decides to organize a workshop to develop teaching materials the local language for the programme



~

