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**KNOWLEDGE ATTITUDE AND PRACTICES AS
BARRIERS TO TUBERCULOSIS CASE FINDING
IN THE GA DISTRICT**

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**DISSERTATION SUBMITTED TO THE SCHOOL OF PUBLIC
HEALTH, UNIVERSITY OF GHANA, LEGON**

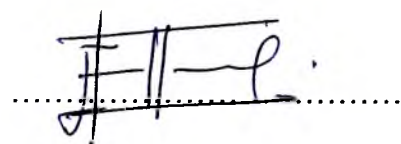


**IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF
DEGREE OF MASTER OF PUBLIC HEALTH**

1999

DECLARATION

I hereby declare that, this is an Original work based on my own research,
and that it has not been submitted towards any other degree.



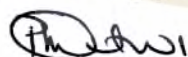
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DEDICATION

Dedicated to my wife and my children.



A C K N O W L E D G E M E N T

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May Allah Bless You All.

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LIST OF ABBREVIATIONS

AIDS	---	ACQUIRED IMMUNE DEFICIENCY SYNDROME
DHMT	--	DISTRICT HEALTH MANAGEMENT TEAM.
EP16	--	EP1 INFO COMPUTER PROGRAM SOFT-WARE.
FGD	--	FOCUS GROUP DISCUSSION
HIV	--	HUMAN IMMUNE DEFICIENCY VIRUS
IESC		INFORMATION EDUCATION AND COMMUNICATION
KATH	--	KOMFO ANOKYE TEACHING HOSPITAL
KAP	--	KNOWLEDGE ATTITUDES AND PRACTICE
NTP	--	NATIONAL TUBERCULOSIS PROGRAMME
TB	--	TUBERCULOSIS
WHO	--	WORLD HEALTH ORGANISATION

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ABSTRACT

This study was designed to determine the barriers to tuberculosis case-finding in the Ga district with respect to the knowledge, attitudes and practices of individuals in the population. The Ga District is located in the Greater Accra Region of Ghana with a population of 246,552.

184 questionnaires were administered on subjects drawn from the general population. Focus Group Discussions were also conducted to explore the underlying factors for the health seeking behaviour of the people.

Respondents comprised 59.7% (110) females and 40.3% (74) males. 56.5% (104) had only primary education whilst 27.2% (50) had no formal education. 9.8% (18) were familiar with the disease, 70.1% (129) knew it was curable, but only 51.6% (94) knew that treatment was available and free.

Cough with bloodstains and weight loss are well known signs and symptoms of TB in the Ga district. Causes as perceived by the people included getting it through the air, and from smoking cigarettes. TB is generally believed in the district to be severe and fatalistic. It is the second most stigmatized disease in the district and ranks only next to HIV/AIDS.

It was found that the people mostly seek treatment at the local health centre, however using health facilities, like the Korle-be Teaching Hospital, outside the district is not uncommon.

Results of the study indicated insufficiencies in the knowledge of TB in the Ga district and this was found to be the major factor affecting TB case-finding in the district.

There will therefore be the need for the DHMT to undertake a major Information Education and Communication (IE&C) campaign in order to create awareness and reduce the myths and misconceptions people have about TB in the general population.

Special educational material should be provided to the Ministry of Education so that all pupils who go through the formal educational system are given some information on tuberculosis.

There is the need for programme managers to emphasize on interpersonal communication especially in the local languages since the general level of education in the district is low. Churches are good places to start educational campaigns in the district.

CHAPTER ONE

1.0 INTRODUCTION

Though the reason why the WHO declared Tuberculosis (TB), a global emergency are obvious, it is less obvious why TB has been a 'low priority' for so many years. Unlike many of today's ills, TB does have a strong and vocal constituency, for example, women's health groups have not put the disease high on their agenda, even though TB kills as many women as all maternal causes combined. TB has not been a priority for child survival advocates, even though 300,000 children die from TB each year. TB has not been a primary concern for AIDS advocates, even though in many countries, TB accounts for more than a third of all deaths from AIDS related opportunistic infections. Nor has TB been a vital issue for development groups, even though TB is responsible for 26 percent of all avoidable adult deaths in the developing world, [WHO, 1996].

Tuberculosis is a chronic bacterial infection caused by *Mycobacterium tuberculosis* (*M.tuberculosis*) and characterised by the formation of granulomas in infected tissues and by florid cell-mediated hypersensitivity, [Mario et al 1995]. The usual sites of the disease are the lungs but other organs may be involved, [Lyle D. Victor et al 1992]. TB is one of the most wide spread infectious diseases and is the leading cause of death due to a single infectious agent among adults in the world. The search for improved methods of prevention and control require a better understanding of the signs and symptoms

of the disease by health workers so that they can better educate people on the disease with the aim of improving case-finding.

- **Background**

There is little doubt that tuberculosis as a disease was widely prevalent in ancient times. Mummies evacuated from the pyramids in Egypt have shown evidence of tuberculosis. If it is realized that the pyramids were built 5000 years before Christ, then we have an idea of how long tuberculosis has been known to afflict mankind. Tuberculosis was portrayed by European physicians and by writers of the 18th century. Early public health data indicate that as many as one quarter to one third of all deaths in European cities in the mid 19th century may have been due to tuberculosis, [Ankrah, 1997]. Robert Koch in 1882 first isolated *mycobacterium* and when he announced his discovery of the tubercle bacillus, 1/7th of all deaths in Europe were due to TB. Hopes for a cure were only briefly raised by Koch's suggestion in 1890 that a filtrate of cultured tubercle bacilli, later known as 'Old tuberculin', had therapeutic value. Although this antigenic material was soon found to be useless as a cure it subsequently proved successful in identifying infected individuals, [Croften, 1992].

- **Resurgence of tuberculosis**

After a period of relative dormancy in the West, interest in tuberculosis has been reactivated as the disease has become a clinical and public health problem and the subject of renewed research worldwide. Poverty and homelessness in inner

city areas of the United States and erosion of the resources for anti-tuberculosis programs in these areas have been blamed for some of the recent increase. Tuberculosis is an opportunistic infection and it tends to affect those who already have reduced resistance, hence malnutrition, cigarette smoking, pneumoconiosis, uncontrolled diabetes mellitus and post gastrectomy state may diminish host resistance and lead to infection of the patient with tuberculosis. It has been observed that poverty and tuberculosis go hand in hand hence with increasing unemployment, with its attendant poverty and reduction in the standard of living, poor housing and malnutrition, the conditions are ripe for the resurgence of tuberculosis and therefore the need for the improvement of case-finding. The World Health Organization (WHO) estimates that human TB incidence and deaths for 1990 and 1999 will be 88 million and 33 million, respectively with most cases in developing countries [WHO, 1996] and thus, the need for developing countries especially to redouble their efforts at case-finding.

The purpose of the study, therefore, was to explore the Knowledge, Attitudes and Practices of the people of the Ga district with respect to tuberculosis as barriers to TB case-finding. The results of the study could therefore be used for the improvement of case-finding through the application of recommended preventive strategies, based on the findings.

1.1. STUDY LOCATION.

The Ga Administrative District is the second largest of the five districts that make up the Greater Accra Region in the South of Ghana. It is one of the newer districts created in the country in 1988. It has a land area of 859 sq. kilometers, and current estimated population density of 338 persons per square kilometer. The District is sub-divided into 5 health catchment areas referred to as Health Sub-districts namely; Amasaman, Madina, Obom, Danfa and Weija.

- **Demography**

The 1999 population projected at 3% growth per year based on the 1984-population census, is 246,552.

The distribution by sub-districts is shown below:

<u>Sub-District</u>	<u>Population</u>
AMASAMAN	90,108 (district capital)
MADINA	47,893
OBOM	44,348
DANFA	40,719
<u>WEIJA</u>	<u>23,484</u>
<u>Total</u>	<u>246,552.</u>

- **Ethnic Groups**

The indigenous inhabitants are of the Ga ethnic group. However, many other ethnic groups have settled in the urban as well as the rural communities, giving a mix of Akans, Dangmes and Ewes. In the Madina sub-district and other areas such as Malam, Negleshie and Amanfro, almost all the northern ethnic groups such as Dagombas, Frafras, Dagabas can be found.

- **Economic Activities**

These include fishing in the coastal and Lake Areas, and farming in the inland areas. The majority of rural dwellers in the district are peasant farmers who grow maize, cassava, peppers and okra. There are large commercial farms, which produce pineapple, watermelon, mango, pepper and coconut for export. Irrigation farming occurs in the Weija and other dam areas. Cattle, sheep and goats and local fowls are also reared in the district at subsistence level.

- **Roads And Transport**

The Accra-Kumasi trunk road crosses the district from south to north. Two other main roads traverse the district these are the Accra-Takoradi and the Accra-Aburi roads in the Southern and North Eastern parts of the district respectively. Besides these, all other roads in the district are unpaved but are to a large extent motorable. Public transportation, though relatively expensive like in all other parts of the country, is available. Train transport is used by the villagers along the

rail lines that cross the district. Other important means of transportation within the district include the motorcycle, bicycle and canoe. Most of the rural population, especially the women, walk long distances, often carrying head loads of wares.

- **Infrastructure**

The Ga District Administrative capital, Amasaman is located nearly centrally, some 25 km from Accra and off the Accra-Nsawam trunk road. It is not easily accessible to health sub-districts and majority of the communities. About 20 to 30 % of the district land area is urban or sub-urban. These communities have basic services such as electricity, pipe-borne water supply, markets, police stations, post offices and telephone facilities. The Ga district however, has no district hospital. The Amasaman Rural Health Centre, the largest health facility in the district, has a low utilization rate though it is centrally located and accessible to most people in the sub- districts. There are Health Centres in all the sub-district capitals, however there are no regular admission facilities in any of the health institutions.

- **Topography**

The land consists of gentle hills to the East, interspersed with plains in the central parts. There are a number of small lagoons in the coastal areas. The River Densu, the largest water body, runs from north to south. Other water

bodies, mostly tributaries of the Densu, are the Adaiso, Dobro, Insaki, Ntafrafra, Opintin, Honi and Ponpon rivers. These water bodies are significant for economic activities (fishing and farming), and disease causation. Several water-related diseases are endemic in the district. The vegetation is coastal Savannah and shrub-land in most parts of the Densu River basin. Towards the northern sections there are thin remnants of forests. The coastal lands are mainly covered with mangrove swamps and brackish water lagoons.

- **Rainfall**

There are two main seasons, wet and dry. The major rains come from April/May to July. There is a short break in August, followed by minor rains from September to October or November. The period from November to March constitutes the main dry season, characterised by dusty harmattan winds. The dry seasons are characterised by severe water shortages in most of the rural areas.

Major Disease Problems

Diseases that are endemic in the district include Malaria, Diarrhoea, Buruli Ulcer, Tuberculosis and Schistosomiasis.

1.2. THE PROBLEM STATEMENT

LOW TB CASE-FINDING COVERAGE IN THE GA DISTRICT.

Available data from the Ga District indicate that TB case-finding in the Ga district is low. In 1999 and 1998 no new cases were diagnosed, in 1997 and 1996 20 and 26 cases respectively were diagnosed [Annual Report, 1998].

With a National estimated point prevalence of 0.2%, (that is, 200/100,000) [Bonsu et al 1999] the Ga district which has a population of 246,552, must expect 493 new TB cases annually. However this is not the case as indicated in the annual reports of the district. Whilst efforts are being made at the National level to increase the case-finding coverage from 30% to 55%, the case-finding coverage in the Ga district is dismally between 4.06% and 5.27% [Annual Report, 1998]. This clearly raises questions about case finding in the district. For an improvement in TB Case Finding therefore, TB must be a priority for all involved in health, in fact it calls for a concerted effort by all. To begin these efforts, baseline information about the current knowledge base of the general population and how it affects Case finding is vital to direct future educational interventions and preventive strategies.

Study Justification

From the review of available data, there is no evidence of any previous attempts at solving the case-finding problem in the Ga district. In fact there are no data suggesting that there have been any previous attempts at creating TB awareness in the district.

Barriers to TB Case-Finding, identified from literature, can be grouped into three categories namely; infra-structural (health facilities, road network and transportation); economic (cost of transportation, cost of treatment, cost due to lost of working days and cost due to 'special food' for TB patients); deficiencies in the knowledge, attitudes and practices (KAP). In the Ga district infra-structural barriers may not be of any significance in case- finding because the Ga district has well equipped health centres or health posts which are well equipped enough to handle TB cases. Though the roads are unpaved they are motorable throughout the year. Commercial transport is available most of the time. Economic barriers in the case of TB case-finding in the Ga district may not constitute any meaningful barriers because TB treatment in the district is free, [Annual Report, 1998]. Perceptions of tuberculosis by the people of the Ga district as fatalistic or severe or both are very important indicators to low case-finding for instance, if it is believed that contracting the disease is an act of God, fatalistic or severe then the attitudes and practices of the people will be influenced; people who contract the disease will resort to divine healing rather than seek medical intervention or they may just resign themselves to their fate and do nothing about the ailment. Similarly where the disease is associated with stigmatization, people with the disease, for fear that they will be ostracized will hide the disease and will not seek diagnosis or treatment. A knowledge of the health seeking behaviour of the people of the district with regard to TB, will also give an insight to the relationship between the health seeking behaviour of

the people and case finding of the disease. Finally, a study of the knowledge of the people of the Ga district on the causes, signs and symptoms of the disease will indicate whether or not knowledge of the disease is a barrier to case finding. If people do not know the signs and symptoms of the disease then they will definitely not seek diagnosis early and may die before the disease is ever detected. It is therefore absolutely necessary to explore the Knowledge Attitudes and Practices of the people of the Ga district in order that resources are directed towards the improvement of the deficiencies identified in the people that contribute to the low TB case-finding in the district.

1.3. STUDY OBJECTIVES

(i) General Objective

To explore the perception of TB in the Ga district and identify beliefs, attitudes and practices related to TB case-finding.

(ii) Specific Objectives

- a. To determine the Social Demographic Characteristics and their effects on TB case-finding;
- b. To assess the knowledge of the people about TB and to describe their behaviour, cultural beliefs and practices with regard to TB;
- c. To make recommendations on the basis of the findings for the improvement of TB case-finding.

CHAPTER TWO

2.0 LITERATURE REVIEW

The Global incidence of TB is greatly underestimated. In 1995, 3.3 million cases were reported to the Global Tuberculosis Program of the WHO, whereas a more realistic figure should have been 8.8 million in Sub-Saharan Africa alone, [Emerging Infectious Diseases, 1998].

- **Tuberculosis In Developed Countries**

Developed countries have made remarkable progress in TB control during the past several decades. Even before the introduction of chemotherapy, case infections regularly declined as a result of a number of factors such as improved case-finding techniques, socio-economic improvements and removal of infectious patients from the communities. Wide availability of Anti-Tuberculosis drugs and free TB treatment instituted by The World Health Organisation (W H O) in 1996 further accelerated the decline. However, tuberculosis case notifications recently have started to increase in many countries [WHO, 1996].

- **Tuberculosis in The African Region**

While tuberculosis has quietly plagued Africa for generations, it has recently re-emerged as a public health emergency as it is taking lives at epidemic rates. At least one third of the population in Africa is already infected with tuberculosis. Normally, only 10% of these people would ever become sick with TB as the

bacillus can remain dormant for many years waiting for illness, under-nourishment, or fatigue to weaken the immune system sufficiently so as to encourage active disease to arise. In Africa, poverty, HIV, and poor general health have shifted the odds in favor of TB, allowing over 1.6 million African people to develop active tuberculosis each year [Hanson, 1998]. Many will die if case detection remains at current levels.

- **TUBERCULOSIS IN GHANA**

In 1957, a World Health Organisation (W H O) -sponsored study reported a TB point prevalence of 0.2% to 0.9% in the general population (all ages). At the time, the annual risk of infection for the whole country was on average about 3% to 4%. The annual risk of infection in recent years is estimated at between 1% and 2%, [Nyarko et al]. Between 1972 and 1975 the average number of new and old cases seen at the chest clinic on each clinic day at the Komfo Anokye Teaching Hospital, Kumasi, were 5 and 70 respectively. Currently the same hospital is seeing on average 15 new cases and 120 old cases at the same chest clinic on each clinic day, [Ankrah, 1997] – an indication of resurgence of TB in Ghana as a problem. TB is a menacing health problem in Ghana. Though the annual notification of TB cases in Ghana to the WHO from 1974 to 1993 showed no clear increase, Ghana is still estimated to have a prevalence of more than 100 per 100,000 people [Frimpong, 1997]. This discrepancy may be partly due to case finding.

Work done by Albert Ruskin Cook, a British Missionary who worked in Buganda (central East Africa) in 1896, on the history of tuberculosis in central East Africa, indicated that TB case finding has been a problem since 1897. It was shown in the same study that many chronically ill patients with diagnosis of bronchitis or pneumonia were described as having rales or ronchi over the upper lobes and apices of the lungs rather than TB, [Daniel, 1998] Cases were thus missed due to poor knowledge of TB.

In Germany, TB notification decreased from 25.8/100,000 in 1985 to 17.3/100,000, in 1991 and to 16.0/100,000 in 1994. This decrease was largely due to a well programmed control system which included routine recording of basic data which were useful for the characterization of pediatric TB. Complete screening among child contacts of adult smear-positive index cases and increased testing in high risk groups were seen to be the key factors for prevention, or at least early detection of cases, [Felten et al, 1998].

In a study on the economic impact and burden on TB patients prior to diagnosis conducted in Zambia, 38% (77 out of 202 TB patients interviewed) blamed money shortages for their delay in seeking diagnosis, patients incurred a mean total cost equivalent to 127% of their mean monthly income (\$ US 59); direct expenditure represented 60% of the cost. In addition, patients lost 18 working days prior to diagnosis, [Needham, 1998].

It was found that the economic burden of TB on patients created barriers to prompt diagnosis, which may have led to continuing transmission of the

infection. Other important economic barriers established by the study, included transportation expenditure, cost of 'special food' and lost income.

A study of the knowledge, attitudes and practices of Non-Hispanic Blacks and Asians in Missouri and Kansas cities in the USA between 1994 and 1995, found knowledge deficits in etiology, transmission and treatment of TB. These deficits were shown in the study to have an effect on the health seeking behaviour of the subjects, [Marinac et al, 1998].

A study conducted in Batswana, in Botswana in southern Africa in which the health seeking behaviour of tuberculosis (TB) patients, and their beliefs and attitudes with regard to TB during 1993/94, it was found that there was an apparent resemblance between traditional ideas of disease being caused by pollution (breaking of taboos) and modern theories of spread via germs. TB was regarded as a 'European disease' or a 'Tswana disease' and had implications for health behaviour. Patients who regarded TB as a 'Tswana disease' used modern medicine for symptom relief but traditional medicine to treat what they considered the cause of the disease. It was observed that after starting modern treatment, 47% of patients visited, or planned to visit a traditional or faith healer. The traditional explanations of disease seemed less prevalent in 1993/94 than in a study conducted among TB patients in Botswana 10 years earlier [Sten and Mazonde, 1998], suggesting that there was an improvement in the perceptions of the people with regard to TB.

A review of research findings on health care practices, adherence to treatment and organisational behaviour of health care workers with respect to TB and how they are affected by cultural and structural factors revealed that structural rather than cultural factors may be the main explanation for the questionable behaviour of health care workers and patients suffering from TB in less developed countries [Jaramillo, 1998].

In a study conducted in Bombay, India it was found that almost equal numbers of male and female respondents stated 'germs' and 'worry' as the cause of TB. Men worried about loss of wages, financial difficulties, reduced capacity for work, poor job performance and the consequences of long absence from work while women were concerned about rejection by husband, harassment by in-laws, and the reduced chances of marriage (for single women). Married men and single women perceived a greater level of family support to initiate and complete treatment. Married women tried often unsuccessfully, to hide their disease condition for fear of desertion, rejection or blame for bringing the disease, [Nair et al, 1997].

Another study in Cali, Colombia showed that the cultural- based explanation patients gave to the symptoms, the stigma attached to TB and the poor quality of health care services (communication skills, organisational structure, attitudes, and knowledge of tuberculosis control strategy of health care workers) are strong barriers to early diagnosis, [Jaramillo, 1998].

In a study in Korea, it was found that the average time between the onset of symptoms and initial medical consultation was 1.8 months (patient's delay). This delay was found to be longer in the rural areas compared to urban areas, [Mori, 1992].

In a nationwide KAP study of Tuberculosis on 800 respondents conducted in four regions in Ghana, namely, Ashanti, Western, Volta and Eastern, a number of respondents interviewed mentioned the causes of TB as, heredity, drinking from beer-bars, smoke from firewood, chewing tiger-nuts and coughing in the process of sexual intercourse. As high as 25% of respondents did not know that TB is curable. The over all level of awareness was found to be 21 per cent. The results of all these studies point to serious deficits in the knowledge, attitudes and practices of the people with regard to TB and which in turn affects case finding, [QBR, 1995].

CHAPTER THREE

3.0 METHODOLOGY

Collection of relevant data was done with the help of questionnaires and Focus Group Discussions.

3.1. *Design of the Study*

The study was a cross-sectional descriptive study, which entailed the use of quantitative and qualitative methods.

3.2. *Study Population*

The study population included all persons between the ages of 15 and 54 in the general population.

3.3. *Sample Size*

Using the district population of 246,552, an expected frequency of knowledge of TB, of 21%(QBR 1995) and a worst acceptable deviation of +5, the Epi 6 computer program gave a sample size of 179 at 90% confidence level. 184 questionnaires were actually administered, allowing for wastage during the administration.

3.4. **Sampling Procedure**

The Ga District is made up of five sub-districts namely Amasaman, Madina, Obom, Weija and Danfa. Proportionate samples were drawn from all the five districts.

Table 3.4.1: Sub-districts with their corresponding populations and proportionate sample sizes.

Sub-district	Population	Percentage of district Population	Sample size
Amasaman	90,108	36.5	65
Madina	47,893	19.4	35
Obom	44,348	18.0	32
Weija	40,719	16.5	30
Danfa	23,484	9.5	17
Total	246,552	100	179

3.5 Variables.

1. AGE;

2. SEX;

3. EDUCATIONAL LEVEL;

4. OCCUPATION;

5. RELIGION.

6. FAMILIARITY WITH TB;

7. KNOWLEDGE OF SIGNS AND SYMPTOMS OF TB;

8. BELIEFS WITH RESPECT TO TB;

9. ATTITUDES WITH RESPECT TO TB;

10. PRACTICES WITH RESPECT TO TB.

3.6. Data collection tools

1. STRUCTURED QUESTIONNAIRES;
2. FOCUS GROUP DISCUSSIONS.

3.7 Data collection techniques

Selection of respondents was random. Each sub-district is divided into electoral areas and those electoral areas considered were selected by ballot. Once in the community an index house was marked. Starting from the index house, the data collector picked on a person in every house within the target age group, in one direction, until the required number of people was attained, otherwise, the house in the clockwise direction of the last house entered was selected and the process repeated. This continued until the required number was attained. Structured questionnaires made up of 26 questions in three parts were used. The first part was to establish the demographic characteristics of the population, the next part was aimed at finding out the knowledge of respondents in the Ga district about the disease and the final segment, to find out and describe the attitudes, beliefs and practices of the general population.

Focus Group Discussions were used to explore the perceptions of the participants about TB and the underlying factors for the attitudes and practices of the participants.

3.8. Training and Pre-testing

A one day training program was conducted for four persons with previous experience in data collection, drawn from the district. The training entailed formal talks on quantitative research and the administration of questionnaires. At the training the questionnaire was translated into Ga since preliminary studies showed that most of the people in the district spoke and understood Ga. English, and Twi were used alongside. Before using Twi however the author and the data collectors thoroughly went through the questionnaire to ensure that questions that were asked in Twi carried the same interpretation as in English and in Ga. Pre-testing was done the same day. Five questionnaires were administered by each of the trainees in the Amasaman area.

3.9. Quality Control

The author verified 10% of the interviews, by either going back to administer the questionnaire or sitting in, on some of the interviews.

3.10. Field Auditing

The author did primary 'cleansing' of the data by editing transcripts of the Focus Group Discussions and verifying the work of the field team.

3.11. Clearance From Local Authorities

Before starting the study in the district, permission was sought from the District Chief Executive and the District Co-ordinating Director which was granted after they were briefed on the objective of the study. Similarly, all data collectors were trained and advised to seek permission from the sub-district headmen before starting any work in the district.

3.12 Ethical Clearance

Respondents were told about the purpose of the interview and their consent was sought before the interview was conducted. Names were neither used nor required.

3.13. Data Processing and Analysis

Quantitative data were processed and analysed using Epi 6 software based on the objectives of the study.

The questionnaires were numbered and responses coded to ensure accuracy in processing.

3.14. Limitations

A sample size of 179 at 90% confidence level was used instead of a sample size of 255 at 95% confidence level due to financial constraints, however it was the hope of the author that the results of the study would not be affected

by any significant biases due to this factor.

Language was a serious constraint. It was not possible to translate the questionnaire into all the major dialects spoken in the district because of the difficulty in finding experts for such purposes. The author managed however to get the questionnaire translated, at least into Ga and twi which are the most popular dialects spoken in the district.

The houses in the communities and sub-district capitals are not enumerated and this was a serious constraint in the selection of respondents for the administration of the questionnaire.

It must be stressed here that the main purpose of the study was to establish or otherwise that the Knowledge, Attitudes and Practices of the people of the Ga district are barriers to TB case-finding and therefore the results of the study are limited to the Ga district.

CHAPTER FOUR

4.0 RESULTS

SOCIAL DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS IN THE GA DISTRICT.

Table 4.1.1: Age Distribution of Respondents

AGE	Frequency	Percentage
15-24	30	16.3
25-34	59	32.5
35-44	47	25.5
45-54	48	26.2
Total	184	100

Table 4.1.1 shows that majority of the respondents (32.5%) (average) were between the ages of 25 and 34 years.

The least group 16.3% was made up of respondents between the ages of 15 and 24 years.

Table 4.1.2: Gender Distribution of Respondents

SEX	FREQUENCY	PERCENTAGE
Male	74	40.3
Female	110	59.7
Total	184	100

Male and female respondents were almost equally distributed in the sample.

Table 4.1.3: Occupational Distribution of Respondents

OCCUPATION	FREQUENCY	PERCENTAG
Self employed	148	80.5
Civil servant	20	11.8
Farmer	50	27.2
Unemployed	16	7.7
Trader	45	24.5
Total	184	100

Majority (80.5%) said they were self employed whilst farmers, the second major occupation in the district constituted 21.7%. It is significant to note here that only 7.6% were unemployed. Self employed was considered to mean people who were neither farmers nor traders but were engaged in some income generating activity like hair-dressing, dress-making, shoe r epairing and others

Table 4.1.4 **Distribution Of Educational Level of Respondents**

EDUCATIONAL LEVEL	FREQUENC	PERCENTAG
No formal education	50	27.2
Primary	104	56.5
Secondary	28	15.2
Tertiary	2	1.1
Total	184	100

Subjects with primary education ranked highest (56.6%) followed by those without formal education (27.2%). This means that 83.8% of the population have less than secondary education.

Table 4.1.5: **Distribution Of Respondents by Religion**

RELIGION	FREQUEN	PERCENTA
Christian	158	85.8
Muslim	15	8.2
Traditional	11	6.0

The district is predominantly Christian (85.9%). It is however significant to note that 14.2% of the people are either Muslims or Traditional Religious Practitioners.

4.2 KNOWLEDGE ABOUT TB

Table 4.2.1: Major Diseases Familiar to Respondents

DISEASE	FREQUENC	PERCENTAGE
Malaria	116	63.0
Diarrhoea	46	25.0
Buruli ulcer	21	11.4
TB	18	9.8
Cholera	12	6.5
HIV /AIDS	10	5.4
All others	53	27.5

Multiple answers.

As many as 19 different diseases were mentioned. From the above table

(Table 4.2.1) it can be seen that malaria was most known in the district (63.0 %).

Only 9.8 % mentioned TB as familiar to them.

Table 4.2.2: Knowledge of Signs and Symptoms Of TB

SIGNS AND SYMPTOMS	FREQUENCY #	PERCENTAGE
Cough with/without blood stains	111	60.3
Chest pain	31	16.8
Weight loss	65	35.5
Poor appetite	12	6.5
Paleness	1	0.5
Don't know.	3	1.6

Majority of the respondents (60.3%), mentioned cough with or without bloodstains. Weight loss ranked second (35.5%). (Table 4.2..2). It is unfortunate that up to 1.6% of the people have no knowledge of the signs and symptoms of TB.

Table 4.2. 3 Knowledge that TB is Curable

TB IS CURABL	FREQUENC	PERCENTAGE
Yes	129	70.1
No	12	6.5
Don't know	43	23.4
Total	184	100

From table 4.2.3 majority of the respondents knew that TB was curable.

Table 4.2 .4: Knowledge that TB Treatment is Available and Free

AWARE	FREQUENCY	PERCENTAGE
Yes	94	51.6
No	90	48.9
Total	184	100

From table 4.2.4 it can be seen that almost half of the respondents (48.9%) were not aware that TB treatment is available and free.

BELIEFS, ATTITUDES AND PRACTICES**Table 4.3.1: Beliefs about Causes of TB**

BELIEFS	FREQUENCY	PERCENTAGE
Act of God	8	4.3
Witchcraft	18	9.8
Through food	16	8.7
Through air	48	20.1
Smoking	34	18.5
Closeness to fire	16	8.7
Through sex	9	4.9
Don't know	69	37.5

Whilst 37.5% could not mention any causes 4.3% believed that getting TB is an act of God and 9.8% also believed that it is caused by witch-craft. (Table. 4.3.1).

4.3 .2: Stigmatization of Diseases

STIGMATIZED DISEASE	FREQUENCY #	PERCENTAGE
HIV /AIDS	117	64.0
TB	60	33.0
Gonorrhoea	49	26.6
Leprosy	16	8.7
Buruli ulcer	4	2.2
Epilepsy	4	2.2
Boil on the vagina	2	1.1
Any STD	4	2.2
Scabies	2	1.1
Sexual impotence	12	6.5

TB ranked second (33.0%) after HIV/ AIDS (64.0%) on the respondents' scale of stigmatized diseases. (Table 4.3.2).

4.3.3 HEALTH SEEKING BEHAVIOUR

Table 4.3. 3: Where People Will Seek Treatment

PLACE	FREQUENCY	PERCENTAGE
Health Centre	136	73.9
Spiritual Church	23	12.5
Fetish Shrine	33	17.9
Pharmacy /Chemical Shop	8	4.3

From table 4.3.3 , it can be seen that respondents' choices of places where to obtain treatment other than the health centre constituted a total of 34.7%.

(Spiritual Church 12.5%, Fetish Shrine 17.9% and Pharmacy/ Chemical Shop 4.3%).

Majority (73.9%) Table 4.3.3 still use the health centre as their first choice for Medical attention.

4.3.4 USE OF ALTERNATIVE HEALTH FACILITIES RATHER THAN THE LOCAL HEALTH FACILITIES

Table 4.3. 4: Alternative Facilities Used by Respondents

PLACE	FREQUENCY	PERCENTAGE
Korle-Bu Teaching Hospital	81	44.0
37-Military Hospital	5	2.7
Ridge Hospital	2	1.1
Adabraka Polyclinic	3	1.6
Nsawam Government Hospital	5	2.7

From table 4.3. 4, at least 44.0% of respondents said they used Korle-Bu as an alternative to the district health facilities.

4.4 KEY FINDINGS OF FOCUS GROUP DISCUSSIONS

4.4.1 KNOWLEDGE OF SIGNS AND SYMPTOMS

Cough with or without bloodstains ranked highest among respondents, followed by weight loss. Other signs and symptoms mentioned were; chest pains; poor appetite and paleness.

4.4.2 PERCEPTION OF CAUSES

Majority of the respondents said that a person may get TB through the air however a few other responses featured prominently, including; smoke from fire wood; smoking cigarettes; an act of God; witchcraft chewing tiger-nuts and coughing whilst having sex.

4.4.3 KNOWLEDGE OF CURE

Majority of women knew that there was medicine/ vaccine normally given in combination with other medicines / vaccines to children. Almost half of the respondents did not know that TB treatment is available and free.

4.4.4 BELIEFS

The popular belief was that TB is severe, fatalistic and more rampant now than before.

4.4.5 STIGMATIZATION

Majority of the respondents indicated that the disease carries a stigma.

A small proportion, however said TB patients should be isolated or banished.

4.4.6 WHERE TO OBTAIN TREATMENT

It was revealed in the Focus Group Discussion that Health Centre; Hospital; Chemical Shop / Pharmacy; Faith healers; Fetish shrine. Majority use the Health Centres but the discussions also revealed that clinical shops/pharmacies, Faith healing and Fetish shrines are used alongside.

4.4.7 USE OF ALTERNATIVE HEALTH FACILITIES OUTSIDE THE DISTRICT

Most respondents said they used health facilities outside the district. They mentioned those facilities outside the district that they use as Korle-Bu; 37- Military Hospital; Ridge Hospital; Adabraka Polyclinic.

Reasons given for using these external health facilities included; the absence of specialists at the local health centres; attending such health facilities is prestigious; the local health centres normally give referrals to these hospitals so it is better to go there straight.

CHAPTER FIVE

5.0 DISCUSSION

It is evident that tuberculosis case-finding has been a problem since 1896 [Daniel 1998]. The difficulty of case-finding in the Ga district is just an extension of the global and national underestimation of the disease. For example, in 1995, 3.3 million cases were reported to the Global Tuberculosis Program of the World Health Organization (W H O) whereas, a more realistic figure should have been 8.8 million in Sub-Saharan Africa alone. [Infectious Diseases, 1998]. Whilst Ghana was estimated to have a prevalence of more than 100 per 100,000 between 1974 and 1993, the notification of cases to the W.H.O, within the same period was under 50,000 [Frimpong, 1997]. Barriers to tuberculosis case-finding as identified in literature include; infrastructural (health facilities, road network and transportation); economic (cost of TB treatment and 'lost' working days) deficits in the knowledge, attitudes and practices of people. It must be emphasized here, however, that in the Ga district these factors do not have any significant influence in TB case-finding because;

1. treatment of TB in the Ga district is free (courtesy, The National Tuberculosis Program, N.T.P);
2. cost due to 'lost' working days is not applicable in Ghana- people on sick-leave receive their full wages or salaries at the end of every month.;

3. health centres or health posts are so close to majority of the people that very little cost is involved in seeking diagnosis at the local health facilities;
4. though the roads are unpaved , they are motorable throughout the year;
5. transport to any part of the district is available at all times.

Considering the enumerated facts stated above it becomes even more important to explore the knowledge, attitudes and practices as barriers to TB case-finding in the Ga district.

5.1 DEMOGRAPHIC CHARACTERISTICS

Majority of respondents (32.5%) in the study population were between the ages of 25 and 34 years [Table 4.1.1] which is close to the result of a National TB Knowledge, Attitudes and Practices study finding in which the highest proportion of respondents was found to be between 26 and 30 years [QBR 1995].

It must however be noted that the number of respondents in the different age groups did not differ much from each other-an indication that all the ages within the target age groups were almost evenly represented in the study population.

Most respondents were self-employed (28.8 %) [Table 4.1.3] which is also consistent with the QBR report. Only a small proportion of them (7.7%) were unemployed suggesting a high employment rate in the district thus strengthening the fact that affordability is not a major factor in TB case-finding in the district. Respondents with Primary Education were found to be the

majority among the respondents, (56.5%) [Table 4.1.4]. Respondents with primary education plus those without formal education constituted 83.7 %.. This is a clear indication that the level of education of majority of the people in the Ga district is very low and will definitely affect their health seeking behavior which in turn will affect case finding in the district. Christians constituted 85.8% of all those interviewed [Table4.1.5]. This is very good for the district since Educational programs on TB can conveniently be carried out in the churches which in the long run will help improve case-finding in the district.

5.2 AWARENESS (KNOWLEDGE OF TB)

Only 9.8% [Table 4.2.1] of respondents mentioned that TB was familiar to them. It ranked fourth among diseases familiar to the people in the district, after Malaria, (63%), Diarrhoea, (25%) and Buruli Ulcer, (11.4%). It is most surprising that TB even ranks lower than Buruli Ulcer, a disease that was reported in the Amansie West District only in 1992. This means that if TB were given priority by health as has been done in the case of Buruli Ulcer it would have been well known by now and case finding would have been higher than current figures.

Knowledge of signs and symptoms of a disease is crucial for seeking diagnosis.

Lack of, or poor knowledge of a disease is therefore a barrier to case finding with respect to that disease. In the Ga district apart from “cough with or without bloodstains” which was mentioned by 60.3% [Table 4.2.2], as a sign of TB , majority of the respondents either did not know any signs and symptoms or

mentioned signs and symptoms that do not apply to TB. Cost of treatment constitutes a major barrier to seeking diagnosis. In a study in Zambia it was found that 38% (77 out of 202) of respondents interviewed, blamed money shortages for delay in seeking diagnosis [Needham, 1998] so that if majority of the population knew that treatment was available and free then they would seek diagnosis and case-finding would improve.

Though a good number of respondents in this study (70.1%) knew that TB was curable, [Table 4.2.3] only 51.6% knew that treatment is available and free. This has serious implications for case-finding in the district.

5.3. CULTURAL BELIEFS, ATTITUDES AND PRACTICES

Only 20.1% said that TB was caused by breathing air from a TB patient [TABLE 4.3.1]. 76.6% either did not know the cause or gave wrong causes or sources. In-fact 4.3% said it was an “act of God” whilst 8.7% said it was contracted from smoking. In the FGD most women mentioned ‘chewing tiger-nuts’ and ‘womanizing’. A young female university student said “you can get TB if a man coughs whilst having sex with you”. One elderly woman with no formal education also said “TB is caused by smoke from fire-wood”. In a study conducted in Batswana, in Botswana, in southern Africa (Sten 1999), similar trends in beliefs, attitudes and practices with respect to TB were found among the people. In that study it was found that there is an apparent resemblance between traditional ideas of disease being caused by “pollution”

(breaking of taboo) and modern theories of spread via germs. Some people regarded TB as a 'Tswana disease' and this had implications for the health seeking behaviour of the 'Tswana' people. People who regarded TB as a 'Tswana disease' used modern medicine for symptom relief but traditional medicine to treat what they considered to be the cause of the disease. It was also found in the same study that 47% of patients visited or planned to visit a traditional or faith healer. Beliefs of the causation of TB such as have been indicated contribute significantly to low case-finding.

In the Focus Group Discussions, quite a good number of the women attributed the infection to the violation of a taboo which forbade coughing during sexual intercourse. Most of the women also said that TB is fatalistic and it was therefore unnecessary for patients to seek any diagnosis or treatment. They also believed that once a person contracts the disease that person will surely die from the disease. Such perceptions of the disease surely create barriers to case finding since, on the strength of their beliefs, they will not seek diagnosis when they are suffering from TB. The fear of stigmatization also ranked very high during the discussions, as a reason for not seeking diagnosis and treatment. Majority of the respondents mentioned fear of being ostracized by family or friends. Others also said that people hide for fear that they will lose their jobs or certain privileges in the community. A similar trend was found in a study conducted in Bombay, India (Nair, 1997). In the study it was found that almost equal numbers of male and female respondents stated "worry" as the cause of not seeking diagnosis. Men

worried about loss of wages and consequences of long absence from work while women were concerned about rejection by husbands, harassment by in-laws and the reduced chances of marriage (for single women). In Korea, in a study called “Analysis of case-finding process of TB” (Mori 1992), delay in seeking diagnosis was found to be longer in the rural areas and associated with the perception that the disease is not curable. Similar perceptions about the disease with respect to cure [Table 4.2.3] in the Ga District also account for the delay in seeking diagnosis and thus making case finding low.

Whilst a small proportion of the women said that people will go to the local health posts or health centres to seek treatment, majority of both the men and the women mentioned the use of traditional medicine and the services of traditional healers. Others also said they will go to hospital only after failing to treat themselves.

This kind of attitude is a recipe for low case finding. The study in the Ga district also revealed that there is the tendency for people to use health facilities like Korle-Bu, the 37-Military Hospital and the Ridge Hospitals in preference to the local health facilities [Tables 4.3.3 and 4.3.4]. This tendency veers people away from seeking diagnosis in the district thereby contributing to low case-finding in the district.

TB ranked second, (33.0%) after HIV/AIDS (64.0%) [Table 4.3.2.] amongst the diseases respondents considered shameful to have. The fact that TB ranked second to HIV/AIDS, a disease reported in the world not too long ago (Koch discovered TB as far back as 1882) emphasizes the fact that TB has been the top most disease of embarrassment and shame over a long period. The effect of this is that people have shied and are still shying away from seeking diagnosis when they had or have TB and this is a contributing factor to low case finding.

5.4 CONCLUSION

The results of the study show deficiencies in the knowledge and perceptions of the people of the Ga district with respect to TB and that indicate that Educational efforts directed at improving the knowledge of the people in the Ga district, with emphasis on the signs and symptoms , re-orientation of perceptions and knowledge of the availability of free treatment are needed if TB case-finding in the district is to improve. Churches were identified as good places to start such educational programs.

5.5 RECOMMENDATIONS

1. There will be the need for the DHMT to undertake a major Information Education and communication (IEC) campaign in order to create awareness and reduce the myths and misconceptions people have about TB in the general population.
2. For permanent educational purposes special educational material should be provided for the Ministry of Education so that all pupils who go through the formal educational system are given some information on the disease.
3. It may be necessary to consider another baseline study to investigate TB service providers' attitudes and behaviour towards their patients.
4. There will be the need for program managers to emphasize on inter-personal communication since the educational level of most people in the district is low and most people do not speak or read English.
5. People should be made aware that TB treatment is the same in every health facility in the country and the drugs are the same and available in all health facilities at all times.

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SERIAL NO.....

QUESTIONNAIRE

TO DETERMINE BARRIERS TO TUBERCULOSIS (TB) CASE FINDING IN

(PLEASE CIRCLE THE ANSWER / RESPONSE.)

A. DEMOGRAPHIC CHARACTERISTICS.

1.Age *15-24*.....
25-34.....
35-44.....
45-54.....

2..Sex *Male*... (1)

3.Occupation *Self-employed*
Civil-servant
Farmer.....
Fisherman.....
Other (specify).....

4.Highest Educational qualification
Nil.....
Primary.....
Secondary.....

—

6. Ethnicity

- Ga*.....(1)
- Akan*..... (2)
- Ewe*.....(3)
- Nothern*.....(4)
- Other (specify)*..... (5).

B. TUBERCULOSIS AWARENESS

7. Name diseases that are familiar to you... *Diarrhoea*..... (1).. /..... *Malaria*... (2).. /..... *Measles*.. (3)..
TB..... (4).. /..... *Other (specify)*.....(5).. /.....
8. A person who looks thin, sometimes coughs blood and complains of chest pains
 may be suffering from a disease called.....*Diarrhoea*..... (1).. /..... *Malaria*.....(2).. /..... *Measles*..... (3)..
TB.....(4).. / ... *Other (specify)* ... (5).. /.....
9. Have you ever heard of a disease called TB?.....*Yes*.... (1).. /..... *No*..... (2).. /
 (If answer is No, go to quest. 27.)
10. What is TB called in your dialect?.....
11. What are the signs and symptoms of TB ?*Cough with or without bloodstains*..... (1)/
Chest pains..... (2).. / *Weight loss*..... (3).. / ... *Poor appetite*... (4).. / ... *Other (specify)*.....
12. Can TB spread from one person to another ?*Yes*.. (1).. /..... *No*.. (2).. /
 (If answer is No go to quest. 14)
13. How is TB spread ? . *Through talking to a TB patient* ..(1).. /..... *Sharing a room with a TB patient* ... (2).. /
Through sharing cups, plates and cutlery.. (3).. /..... *Don't know* ..(4).. /.. *Other (specify)*.....(5).. /.....
14. Is TB curable?.....*Yes*..... (1).. / *No*.. (2).. /..... *Don't know*.. (3)
15. Is there any medicine (vaccine) that can protect people from TB?
Yes.. (1) . /..... *No* (2).. /..... *Don't know*.. (3).. /
 (If answer is No, go to quest. 17.)
16. What age category of people are normally given TB vaccine?
Children.. (1).. /..... *Adults*.. (2).. /..... *Don't know* ..(3)..

17. Is TB treatment available in the health center here ?

Yes.. (1).. / No.. (2).. / Don't know.. (3)...

18. What treatment is given free at the health centre?

Cholera.. (1).. / TB.. (2).. / Buruli ulcer.. (3).. / Leprosy.. (4).. /

Other (specify).. (5).. /

C. BEHAVIOUR CULTURAL BELIEFS AND PRACTICES

19. How do people get TB ?

It is an act of God.. (1).. / It is caused by witchcraft ..(2).. / It is spread by droplets from sufferers.. (3)..

Don't know..(4).. / Other (specify)..(5).. /

20. How do people behave towards persons close to them who have TB ?

They avoid any bodily contact ..(1).. / Keep their distance.. (2).. / Will be sympathetic towards them ..(3)..

Don't know .. (4).. / Other(specify) ..(5).. /

21. In this community, are people prevented from mixing with others if they have TB ?

Yes ..(1).. / No.. (2).. / Don't know .. (3).. /

22. Where is the best place to obtain TB treatment ?.....

The health centre .. (1).. / At the spiritual church.. (2).. / At the Fetish shrine ..(3).. /

At the pharmacy .. (4).. / Other (specify)..(5).. /

23. Do people here always go to the Health Centre for treatment when they are ill?

Yes ..(1).. / No.. (2).. / Don't know..(3).. /

(If No go to quest. 26)

24. Which hospitals do they sometimes go to?

Korle-Bu ..(1).. / 37-Military Hospital.. (2).. / Ridge Hospital.. (3).. / Adabraka Poly

Other (specify)..(5).. /

25. Why do they sometimes choose to go to these hospitals?

.....

26. Mention any disease (s) that people are ashamed of, try to hide and may not report at the hospital ?.

..H.I.V./A.I.D.S..(1).. / Gonorrhoea..(2).. / TB..(3).. /

Leprosy..(4.)..... / Other(specify)...(5).. /

THANK YOU VERY MUCH.

Appendix 2:**FOCUS GROUP DISCUSSION****KAP AS BARRIERS TO TB CASE-FINDING IN THE GA DISTRICT.*****INTERVIEW GUIDE*****1.KNOWLEDGE OF TB**

- What diseases are familiar to you ?
- What are the signs a TB patients will show ?
- Is TB curable / is there any medicine/ vaccine against TB?
- What do you call TB in your dialect?
- How much does TB treatment cost?.

2. BELIEFS AND ATTITUDES

- What causes TB / How do people get TB?.
- Is TB a severe disease / how serious is it?.
- Can a person die from TB? (Is it fatal or not?).
- Should people suffering from TB be allowed to mix with other people?
- What disease are people here normally ashamed of ?
- For what reasons will a person hide TB from employers, friends, family and hospital?

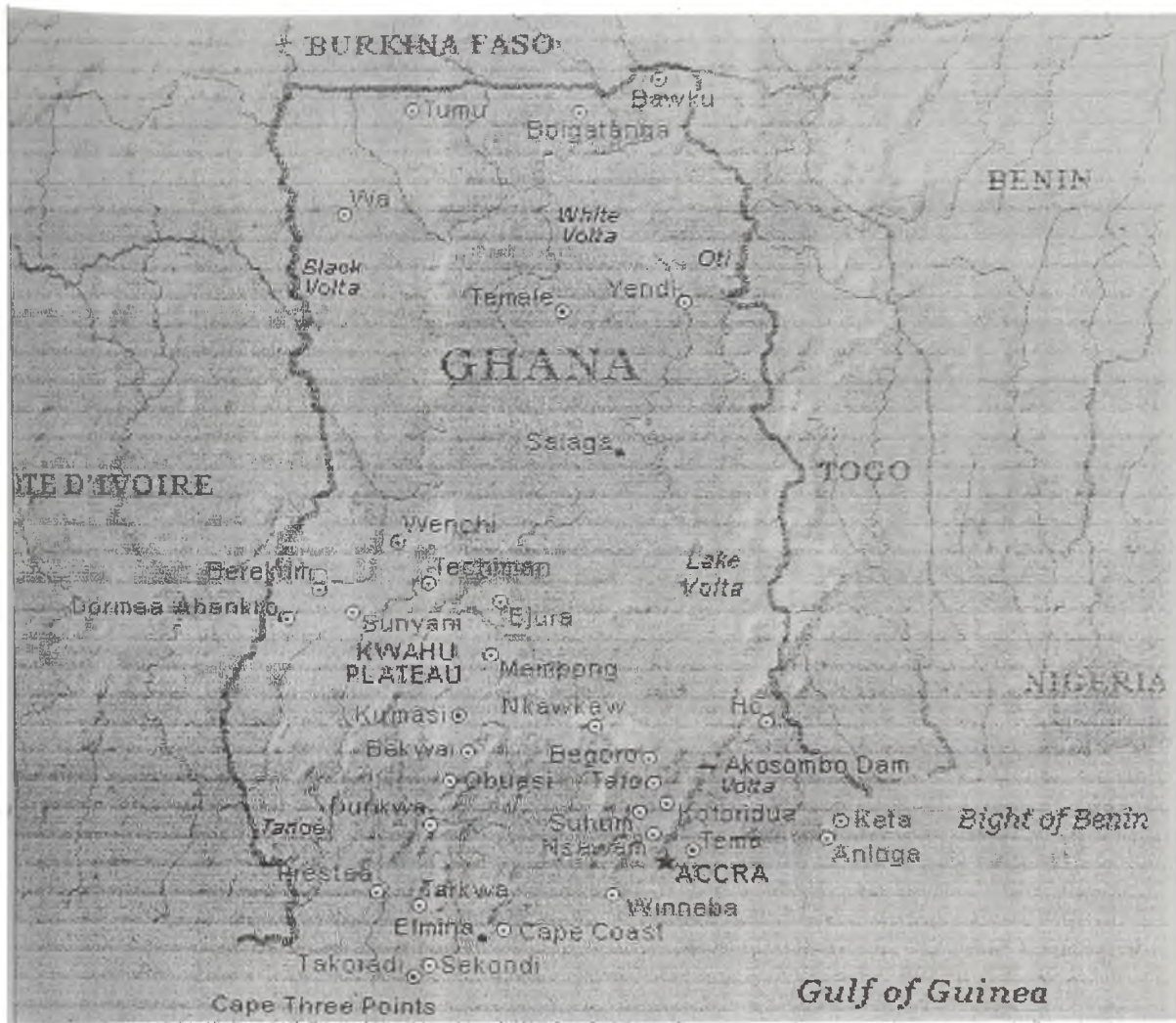
3. HEALTH SEEKING BEHAVIOUR

- Where should people with TB go for treatment ?
- Do people here sometimes go to hospitals outside this district for treatment?
- Mention some of the hospitals people here sometimes go to.
- For what reasons do people go to these hospitals?.

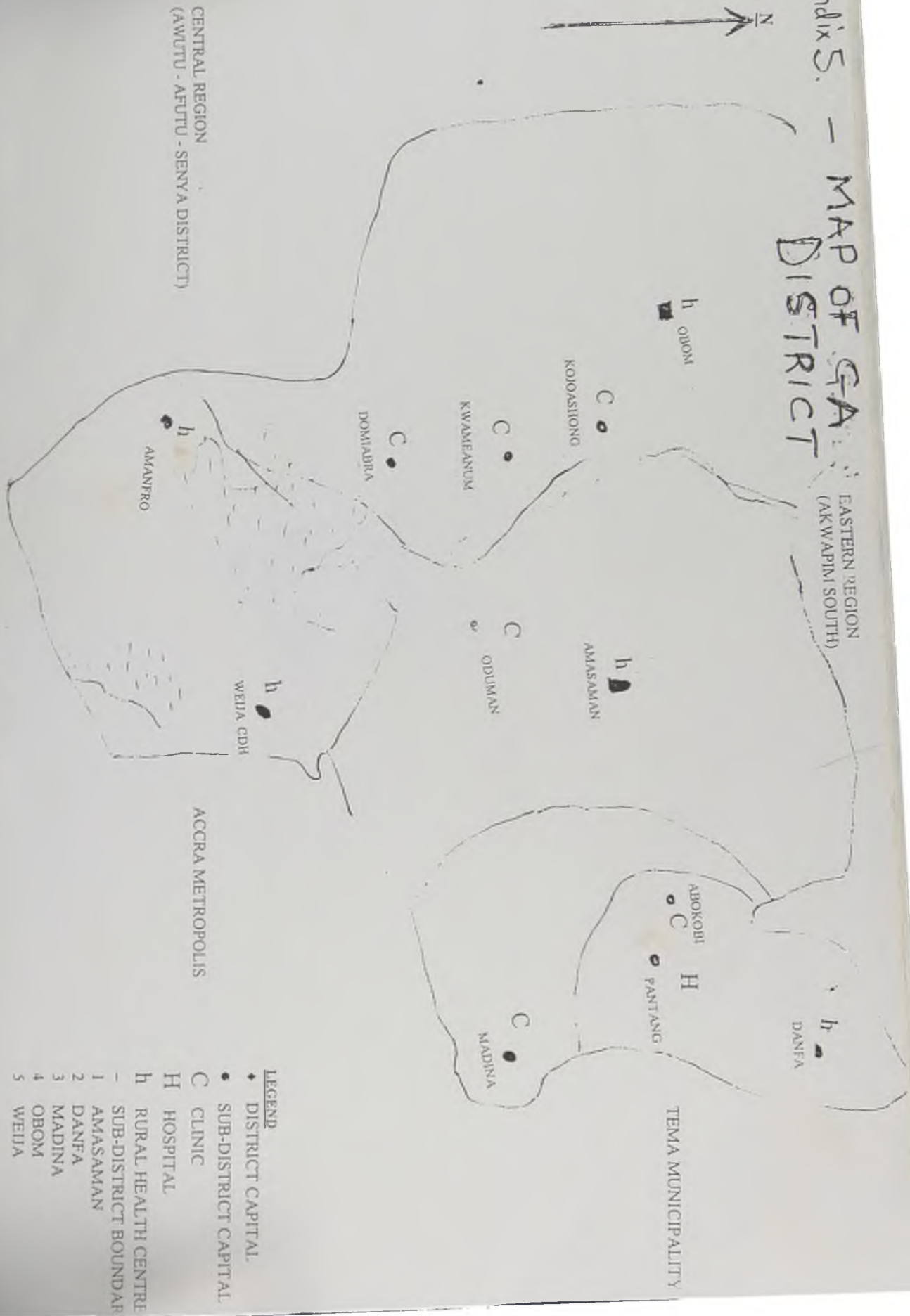
THANK YOU ALL FOR YOUR CO-OPERATION.

APPENDIX 3

MAP OF GHANA.



Appendix S. - MAP OF GA DISTRICT



APPENDIX S. MAP OF GA DISTRICT.

- LEGEND**
- DISTRICT CAPITAL
 - SUB-DISTRICT CAPITAL
 - C CLINIC
 - H HOSPITAL
 - h RURAL HEALTH CENTRE
 - SUB-DISTRICT BOUNDARY
 - 1 AMASAMAN
 - 2 DANFA
 - 3 MADINA
 - 4 OBOM
 - 5 WEIJA