ENSIGN COLLEGE OF PUBLIC HEALTH, KPONG,

EASTERN REGION, GHANA

COMMUNITY AND HEALTH WORKERS PERCEPTIONS ON A FEASIBILITY OF ESTABLISHING A FACILITY FOR NCD CONTROL IN THE MANYA KROBO TRADITIONAL AREA

by

Gideon Angmortey Ahuno

A Thesis submitted to the Department of Community Health in the Faculty of Public Health in partial fulfillment of the requirements for the degree

MASTER OF PUBLIC HEALTH

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DECLARATION

I hereby declare that except for reference to other people work, which I have dully cited, this project submitted to the school of Graduate Studies, Kwame Nkrumah University of Science and Technology, Kumasi is the result of my own investigation, and has not been presented for any other degree elsewhere.

Gideon Angmortey Ahuno (147100019) …….. ……

(Student) Signature Date

Certified by:

Dr Frank Baiden …… ……..

(Supervisor) Signature Date

Certified by:

Dr Christopher N. Tetteh …… ……..

(Dean) Signature Date

DEDICATION

This dissertation is dedicated to my wife, Nana Adwoa Gyamfua Ahuno, and to all the members of my family for their encouragement, patience, sacrifice, love, and support that made this educational achievement possible. I am eternally grateful. Your examples of selfless concern and care for others have helped me to develop this project, and I am very thankful to have each of you in my life!

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Many thanks to God for the traveling mercies, health, and strength granted me to complete this piece of work.

I render my sincerest thanks to my supervisor, Dr. Frank Baiden, firstly, for accepting to supervise my work when it became clear that my search for a supervisor had hit a snag; and secondly, for his mentorship, valuable comments and suggestions which have helped to shape the focus and content of this research.

I am again grateful to Dr. Stephen Manortey who assisted and served as my co-supervisor.

Nene Dr. Kwasi Kafele, Manya Krobo Youth Coordinating Council (MKYCC) of Canada and all potential resources in the Diasporas deserve special mention for providing the framework for this research and who may facilitate the building of the Multi-purpose health centre, the focus of this work.

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Finally, I truly appreciate the support from all the MPH pioneer students for this work..

ABBREVIATION/ACRONYMS

MKYCC: Manya Krobo Youth Coordinating Committee

CVDs: Cardiovascular Diseases

NCDs: Non-Communicable Diseases

CDs: Communicable Diseases

MKTA: Manya Krobo Traditional Area

LMKM: Lower Manya Krobo Municipality

UMK: Upper Manya Krobo

CHO: Community Health Officer

CHNs: Community Health Nurses

CHAG: Christian Health Association of Ghana

M/DDH: Municipal and District Director of Health

ABSTRACT

Introduction

The burden of non-communicable diseases is increasing in sub-Saharan Africa and in areas where HIV/AIDS has traditionally been high, the availability of antiretroviral drugs is leading to a chronicization of the disease, and this is adding to disease burden in a uniquely-demanding way. The Manya Krobo Traditional Area in the Eastern Region of Ghana is suffering this double burden.

Method

This was a qualitative study conducted among purposively-selected community members, opinion leaders and health workers. Data was collected through in-depth interviews and focus group discussions. Areas of inquiry included level of community and health system support, mode of financing, expected range of services, considerations for the sitting of the facility and the model of management of the facility. Interviews were tape-recorded, transcribed, and coded under the areas of inquiry, with concurrent identification of emergent themes. MAXQDA version 12 was used in the analysis.

Results

Twenty IDIs and six FGDs were conducted. There was strong expression of interest in the establishment of the facility with enthusiasm being greatest among community members. Health workers were however less enthusiastic. They raised issues about alternative use of the available resources, including the upgrading of existing facilities. Generally there was preference for a comprehensive health facility that although specializing in NCD prevention and care could

manage other health conditions. There were strong sentiments in favor of the incorporation of alternative medicine and faith-based approaches. Community members were skeptical about the quality of a government-ran facility. Health workers however saw this as a means to sustainability. Preference was for a facility whose operation will be managed by a faith-based organization. Majority of participants wanted the facility to operate a flexible mode of payment for services. Although there was acknowledgement that the Upper Manya Krobo area lacked health facility, the participant's preference of the site of the facility often appeared to be influenced by current residence.

Conclusion

Enthusiasm for the establishment of the facility is high but this should be weighed carefully as it is underpinned by conditions may be difficult to negotiate. The study has highlighted the differences in perceptions between community members, opinion leaders and health workers about the establishment and operation of the health facility. Concerns are raised about sustainability.

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CHAPTER ONE

INTRODUCTION

1.1 Background

The unprecedented increase in non-communicable diseases around the globe in the last few decades is a growing health problem and a challenge for all nations. In Ghana, lack of sufficient and appropriate health infrastructure, inadequate policy and planning infrastructure, limited access to health services, limited research and data tracking, as well as insufficient training supports among many other factors explains why the burden of non-communicable diseases significant impact population health in already poor healthcare delivery systems in the developing world. In Ghana once again just like in many countries, the focus is primarily on curative health (management of illness and diseases at health facilities), relegating preventive care, health promotion and rehabilitation in the background.

In the Manya Krobo Traditional Area, comprising of both the Lower Manya Krobo Municipal and Upper Manya Krobo District in the Eastern Region of Ghana, this reality is exacerbated by the higher rates of poverty, morbidity, and some disease-specific prevalence that are consistently higher than the national averages. This has many implications for the prevention and management of non-communicable disease and the promotion of healthy living within the Krobo traditional area.

The Manya Krobo Traditional Area has the highest rates of anemia (74%) and stunted growth (38%) among infants in Ghana, and community surveys show high prevalence rates of

hypertension and diabetes (LMKMHD 2012). The HIV prevalence in Manya Krobo is currently at 11.6% compared to a national average of 1.3%; and 65% of those infected are female (Addo 2015). The Ghana Health Services (GHS) lacks adequate financial and human resources to address all the numerous challenges it is faced with. These challenges are present in the Manya Krobo districts' health services. Specifically, the GHS has no fully developed health promotion/ disease prevention plan and limited clinical and research capacity in Manya Krobo.

Another important emerging issue in the area is maternal health, specifically unwanted pregnancies and lack of care among the youthful. In 2014, traditional leaders and senior health workers in hospitals brought to the attention of the Manya Krobo Youth Coordinating Committee (MKYCC) the growing number of deaths and serious injuries related to attempted illegal abortions. According the queen mothers this issue is escalating to alarming rates.

Abortions in health facilities in the locality are generally difficult to access due to cost, distance, stigma, among other factors so many young women opt for illegal abortions using various devices and concoctions. As a result, many have suffered irreparable damage to their reproductive systems that could make future pregnancies difficult or impossible (Banoeng-Yakubo 2015). In worst cases, some have either bled to death or have died instantly from toxicity.

Manya Krobo has significant human and cultural resources to assist with addressing many of these needs. There are several individuals, the Traditional Council and other identifiable social

groups who provide some informal care and support as well as act as vital cultural and social links between the natives and the health system. In particular, issues of advocacy for clients' rights, promoting access, and providing a bridge between traditional healers and hospital staff are important to note. Krobos are keen and active in demanding better care and service from the health system.

Given the existing assets and a growing belief that western expertise or professionals trained in the western medicine are better to manage health care, an **"Integrated Holistic Healthcare"** model could be viable in Manya Krobo. An integrated healthcare model would include prevention and management of non-communicable diseases, general health promotion, primary health care services and community development using both tradition and western medical health practitioners. Any successful model would need to work within the cultural and traditional context of the Krobo community.

The Krobos in the Diaspora have contributed immensely towards the development of the traditional area; they are helping in the construction of a Community Centre Complex which houses hostel facility, restaurant, conference rooms and in addition supporting with the upkeep of orphans under the care of the queen mothers among others. And recently they have proposed to support establish a multi-purpose health facility that focused on non-communicable diseases prevention and care within the traditional area.

1.2 Problem Statement

The Manya Krobo Traditional Area was reported in 2012 to have anemia (74%) and stunting (38%) among infants which is above the national average. Also, the same survey of the community showed that there is high prevalence rates of hypertension and diabetes (LMKMHD 2012). Comparing HIV prevalence of 11.6 in MKTA is currently to national average of 1.3% revealed that it is very high and 65% of those infected are female (Addo 2015). The Ghana Health Service (GHS) alone does not have the financial and human resources to intervene effectively. An estimated 86,200 NCD deaths occur each year in Ghana with 55.5% occurring in persons under age 70 years (MoH 2012). An estimated 50,000 NCD deaths occur in males and 36,000 deaths occur in females. The proportion of deaths occurring under 70 years is 69% among males and 59% among females. The age standardized NCD death rate is 817 per 100,000. In 2008, NCDs accounted for an estimated 34% deaths and 31% of disease burden in Ghana(Stuckler 2008). CVDs are the leading cause of NCDs deaths with an estimated 35,000 deaths or 15% of the total deaths. NCDs cause an estimated 2.32 million disability-adjusted life years (DALYs) representing 10,500 DALYs lost per 100,000 populations. Indicating a general rise in death through NCDs by 21.5% between 2008 and 2012 smacks of a serious public health problem for the Krobo area.

Due to the high prevalence of HIV/AIDS attention has been focused on it over the years and this has been at the expense of attention to other diseases. However the availability of antiretroviral drugs is making people with HIV/AIDS live longer and in the process are in need of special care that combines care for HIV/AIDS in old people likely to be suffering from NCDs at the same time.

1.3 Rationale for Study

Various support groups affiliated with the Manya Krobo Traditional Area have proposed support for the establishment of a multi-purpose health facility that focuses on the prevention and care of NCDs within the traditional area. This is based on the following observations about health within the area:

- The Chronic course of HIV/AIDS with the availability of antiretroviral drugs
- Increasing prevalence of hypertension
- High prevalence of anaemia in children
- High health facility-to-population ratio
- High health worker-to-population ratio

An important consideration in the establishment of a health facility is the assessment of perception of members of the community. Given the culture and traditions of the people in the Traditional Area (above), it is important to assess the perception of the following:

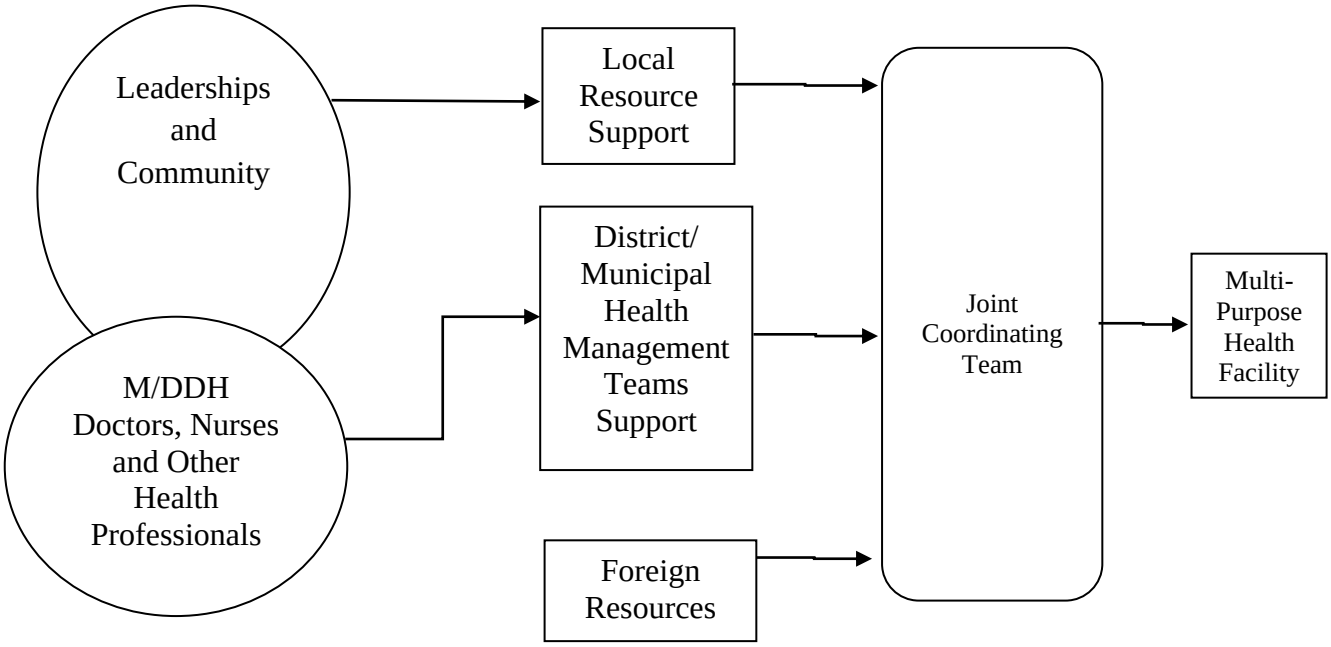
- Traditional authorities
- Religious leaders and other opinion leaders
- Men and men's groups
- Youth and youth groups
- Women and women’s group
- Educational authorities
- Political authorities

A major stakeholder in the establishment of the proposed multi-purpose facility is the Ghana Health Service (GHS). The GHS is the major agency of health in the country and it is likely to be called upon to provide the skilled staff required to man the facility once it is established. Accordingly it will be important to obtain the perception of key persons within the Service within the Traditional Area. This include

- Municipal and District Directors of Health
- Doctors, nurses and other health professionals

The multi-purpose intent for the facility imply that the perception of other key personalities within the Traditional Area be taken into consideration. The synthesis of ideas and opinions of these stakeholders will constitute a basis for community dialogue and engagement towards the establishment of the facility.

1.4 Conceptual Framework



1.5 Research Questions

How will community and health workers in the Manya Krobo Municipality perceive the establishment of the proposed Multi-purpose facility in the following respects?

- Health status of the community
- Availability of health services in the community: preventive, curative and rehabilitative
- Accessibility of these services to the members of the community
- Current gaps in the provision or access to services
- Acceptability of the proposed project (to the leadership and the population)

- Availability of resources (land, human) for the development of the project
- Who will benefit most and who needs it most
- What will make people patronize and how do we increase awareness about the facility
- Anticipated challenges setting up or running the project and how to overcome these challenges

1.6 General Objectives

To determine community and health worker perception of the establishment of a multi-purpose health facility for NCD prevention and care in the Manya Krobo Traditional Area

1.7 Specific Objectives

The specific objectives of the study are:

i. To assess the community and health worker perception of the
    a. Level of enthusiasm
    b. Mode of management
    c. Siting of the facility
    d. Mode of financing of services that will be rendered
    e. Range of services that the facility will offer
    f. Available local non-financial resources
    g. Local health system support for the establishment of the facility

ii. To compare the perceptions of community members, community leaders and health workers in the above

iii. To compare currently available resources as basis for deciding where the proposed facility should be sited

1.8.1 Study setting

1.8.1.1 The Manya Krobo Traditional Area

The study was conducted within the Manya Krobo Traditional Area (MKTA) comprising two political administrative districts: Lower Manya Krobo Municipality (LMK) and Upper Manya Krobo (UMK) District in the Eastern Region of Ghana. As shown in figure 1, the area lies between Longitudes 0.08^{o}E and 0.20^{o}W and Latitudes 6.05^{o}S and 6.30^{o}N with an area of approximately 1476 square kilometers. The climate in the area is semi-equatorial. It has two distinct seasons; the rainy and dry seasons. The rainfall has double maxima with mean annual rainfall ranging between 900mm to 1500 mm. Relative humidity is high during the wet season and low in the dry season. The diurnal range of temperature is 2^{o}C to 9^{o}C. The vegetation is semi-deciduous forest.

The MKTA is bordered to the north by the Afram Plains and Fanteakwa districts, to the south by the Dangme West and North Tongu districts, and Asuogyaman and Yilo Krobo districts to the east and west respectively. The area has major towns including Odumase-Krobo, Agomanya, Akuse, Kpong, Asesewa, Sekesua, Akateng and Otrokper. These area is under a paramountcy headed by a paramount chief in Odumase-Krobo, the traditional capital. The area is home to many major national infrastructure facilities such as the Kpong Hydro-electric dam, the 2nd largest hydro-electric project in Ghana, the Kpong Water Works which is the largest water purification plant in Ghana, forest reserves, military training facilities and two major food

markets in Agomanya and Asesewa which draw clientele from all over the country and beyond (Lower Manya Krobo Municipal Planning Office 2010).

The area has a population of 158,151 which is predominantly rural with subsistence agriculture as the main economic activity; 73% of the population are employed in the agriculture sector as farmers or traders in farm produce. Other people engage in livestock rearing (include poultry, sheep, goat, pigs, cattle and non-traditional animals such as grass cutters), fishing (especially among the sub-populations that live on the banks of the Volta River) or petty trading mainly in agricultural produce. Brewing of a local gin called Akpeteshie is quite common among small scale industrialists in the area and this gin is ingested as part of traditional rites (marriage, christening, etc.) and for recreational purposes.

The population is multi-ethnic but the over 90% of the people are Krobos. The Krobo language is spoken by over 95% of the inhabitants in the traditional area even though there are people of Akan, Ewe, and northern Ghana descent and some Hausa migrants from Nigeria residing in the MKTA. Majority of the population are Christians with Muslims, traditionalists and other religions also present (Nyarko 2010) (Alagbo 2014).

1.8.1.2: Political Administration of the Traditional Area

The MKTA paramountcy is headed by a paramount chief called the "Konor" in the local Krobo dialect. The "Konor" commands substantial respect from the people and the political administration of the area. The area comprises two political districts headed by a Municipal Chief Executive for the LMK and a District Chief Executive for the UMK. Each head has a team

of Assembly Members with a Presiding Member who lead, chair and facilitate the decision making process in the respective districts. There are two Members of Parliament representing the area in the national house of Parliament as part of the legislature of Ghana. For political administration, the districts are sub-divided into sub-districts which also consist of a number of communities in each.

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Figure 1: A map showing the location of the two districts in the Eastern Region of Ghana

1.8.1.3 Organization of Health Services

Municipal and District Health Management Teams (MHMT &DHMT) coordinate provision of health care to the people of LMK and UMK districts respectively. The HMTs are organized into directorates headed by the Director of Health Services. Each directorate has core members comprising environmental health officers, public health nurse, administrators, accountants, and medical officers in charge of the district hospitals. Like the rest of Ghana, health services at the district is organized in a three-level hierarchy; the district hospital (level C) at the top of the hierarchy followed by sub-district health centres (level B) with community clinics and community-based health planning services (CHPS) compounds at the base of the hierarchy (level A). Level A facilities provide basic reproductive and child health services including immunizations, antenatal and postnatal care services for pregnant, delivered women and their children. They also treat minor ailments including malaria. They are usually headed by a Community Health Officer (CHO) or Community Health Nurses (CHNs). Their services are primarily preventive and refer complicated cases to the level B facilities. The latter are also headed by a public health nurse or a medical assistant. They provide preventive and curative services and refer complicated cases to the district hospital which the referral facility of each district.

CHAPTER TWO

LITERATURE REVIEW

The review of literature relevant for this study focuses on studies that address the needs assessment for the establishment of a health centre.

Globalization is a process in which regions are becoming increasingly interconnected through the movement of people, goods, capital and ideas a process that has both beneficial and harmful implications for health. With rapidly increasing globalization and accompanying urbanization, trends towards unhealthy diets, obesity, sedentary lifestyles and unhealthy habits are resulting in increased worldwide burden of chronic NCDs (e.g. diabetes, cardiovascular and lung diseases, cancer and psychiatric disorders) and their associated risk factors (e.g. smoking, alcohol, hypertension and obesity), that includes developing countries (Maher & Sekajugo 2011).

The health research agenda needs to be responsive to changing disease patterns. Rapidly increasing globalization is accompanied by an increased worldwide burden of chronic non-communicable diseases (NCDs), including in developing countries. Sub-Saharan Africa faces particular challenges in responding to health transition, i.e. a double burden of communicable and non-communicable diseases. Health transition represents an enormous challenge to Africa as the region with the least resources for an effective response. Previous epidemics, including HIV, have caught Africa but are resulting in an increased worldwide burden of chronic NCDs (e.g. diabetes, cardiovascular and lung diseases, and cancer) and their associated risk factors (e.g. smoking, alcohol, hypertension, and obesity). While all low-and middle-income regions face the challenge of NCDs as increasingly important health problems, the African region faces the

particular problem of an increasing burden of NCDs and of continuing high morbidity and mortality from communicable diseases. Uganda provides an illustrative example of a resource poor country in Africa in epidemiological transition. There is a continuing high burden of communicable diseases, with for example national estimates for 2007 of 5.4% HIV prevalence(Maher & Sekajugo 2011) and of tuberculosis incidence of 330/100,000 per year (WHO 2009).The importance of NCDs is increasingly recognized. The estimated national prevalence of diabetes was 98,000 in 2000 and is expected to rise to 328,000 by 2030.(Organization 2015). The prevalence of diabetes is particularly high in urban areas, with estimates suggesting that as many as 8% of the residents of the capital, Kampala, might have type 2 diabetes (Lasky 2002). The estimated number of deaths in 2004 due to cardiovascular disease in Uganda was around 34,000 of which about 10,000 were attributable to ischaemic heart disease and around 12,000 to cerebrovascular disease (Maher & Sekajugo 2011).

Additionally, it has been stated that in 2007, it was estimated that there were 246 million people living with diabetes mellitus, 6 million new cases and 3.5 million deaths, with 70% of these patients living in the developing world. In 2000, there were an estimated 972 million people with hypertension, 65% of whom lived in the developing world, with the number predicted to grow to 1.5 billion by 2025. Chronic obstructive pulmonary disease similarly affects large numbers of people with an estimated 300 million people with asthma and 61 million with chronic airflow obstruction, with three-quarters of the patients living in Asia and Africa. The World Health Organization predicts that NCD deaths will increase by 17% over the next decade, with the greatest increase in the African region (27%)(Maher & Sekajugo 2011).

In Africa the situation is not all that different: The current average annual growth of the urban population in sub-Saharan Africa is 4.5%. Urbanization in sub-Saharan Africa, as well as in other less-developed parts of the world, is strongly associated with increased levels of obesity, diabetes and cardiovascular disease. Sub-Saharan Africa therefore faces particular challenges. While all low and middle-income regions face the challenge of NCDs as increasingly important health problems, sub-Saharan Africa faces the unique double burden of increasing NCDs and of continuing high and even increasing morbidity and mortality from communicable diseases. In addition, the consequences of global climate change are likely to be most severe in developing countries, with the associated health risks increasing in vulnerable regions and poorly-resourced populations, even though these countries have contributed least to the problem. (Maher & Sekajugo 2011)

An increasing disease burden arises from interactions between communicable diseases and NCDs, e.g. between tuberculosis and poor nutritional status, diabetes and infection (with diabetes predisposing to infections which often exacerbate hyperglycaemia). Common NCDs arising from the current high burden of chronic communicable diseases in Africa include cervical cancer linked to human papilloma virus infection and hepatoma linked to hepatitis B virus infection. The burden of chronic NCDs is likely to be further uncovered as scaled-up programmes of antiretroviral treatment of HIV-infected people reduce mortality but increase morbidity related to chronic HIV infection and treatment. Increasing numbers of people in Africa are therefore at risk of possible metabolic side-effects resulting from life-long antiretroviral treatment, e.g. diabetes, lipodystrophy and dyslipidaemia. These overlaps between communicable diseases and NCDs

present opportunities for synergistic care, strengthening the case for an improved primary care response (Maher & Sekajugo 2011).

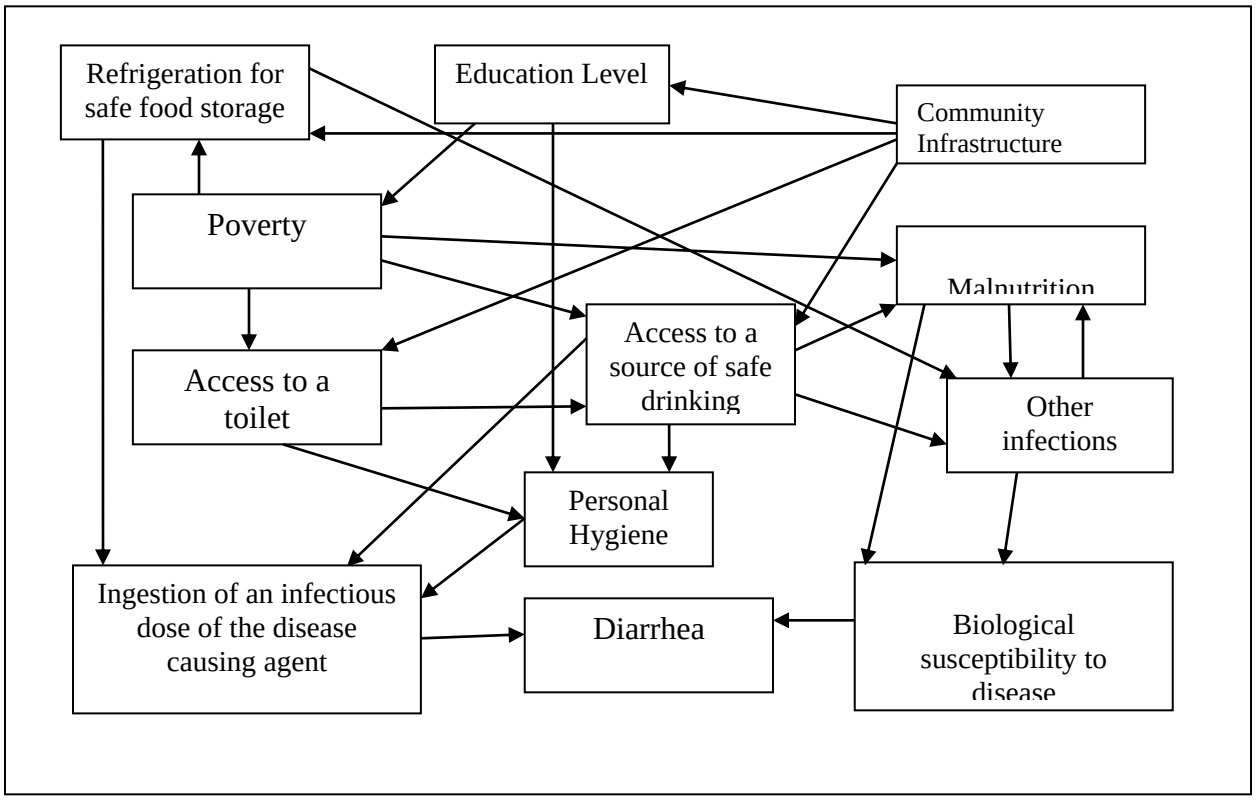
In Ghana: The current average annual growth is 2.35(Davidson 2015) and of the urban population in sub-Saharan Africa is 4.5%. Urbanization in sub-Saharan Africa, as well as in other less-developed parts of the world, is strongly associated with increased levels of obesity, diabetes and cardiovascular disease. Sub-Saharan Africa therefore faces particular challenges. While all low- and middle-income regions face the challenge of NCDs as increasingly important health problems, sub-Saharan Africa faces the unique double burden of increasing NCDs and of continuing high and even increasing morbidity and mortality from communicable diseases. In addition, the consequences of global climate change are likely to be most severe in developing countries, with the associated health risks increasing in vulnerable regions and poorly-resourced populations, even though these countries have contributed least to the problem. Populations with the lowest income and educational levels experience disproportionately high rates of diet-related health problems, and they often must choose food in an environment in which adequate personal, social, or community resources for healthful choices are lacking (Gracias 2013). Furthermore the state of nutrition for vulnerability group, such as low income, low education/literacy, advanced age, living alone, having mental health problems, and/or minority ethnicity among others, has been shown in the literature to be sub-optimal. Food insecurity, associated with poor health and depression in adults, is considered an outcome of social and economic issues such as lack of adequate education and living wages, lack of access to health care and health information, and unsafe living environments, such as dangerous neighborhoods and poor housing (Chilton & Rose 2009).

An increasing disease burden arises from interactions between communicable diseases and NCDs e.g. between tuberculosis and poor nutritional status, diabetes and infection (with diabetes predisposing to infections which often exacerbate hyperglycaemia). Common NCDs arising from the current high burden of chronic communicable diseases in Africa include cervical cancer linked to human papilloma virus infection and hepatoma linked to hepatitis B virus infection. The burden of chronic NCDs is likely to be further uncovered as scaled-up programmes of antiretroviral treatment of HIV-infected people reduce mortality but increase morbidity related to chronic HIV infection and treatment. Increasing numbers of people in Africa are therefore at risk of possible metabolic side-effects resulting from life-long antiretroviral treatment, e.g. diabetes, lipodystrophy and dyslipidaemia. These overlaps between communicable diseases and NCDs present opportunities for synergistic care, strengthening the case for an improved primary care response (De-Graft Aikins et al. 2012).

Prevention

A causal web can be used to display the relationships among the many different biological, behavioral, social, economic, political, and environmental exposures that might have a causal relationship with a particular health outcome. Causal webs indicate the immediate causes of disease and also show more distant causes. For example, Figure 3 shows the relationships between both direct and less direct causes of infectious diarrhea, which is usually acquired through the ingestion of fecal contaminated food or water.

Figure 3: Sample Caused Web for Infectious Diarrhea



When a complex set of characteristics contribute to causing disease, there are also multiple paths to a solution. Interrupting any of the pathways shown on a causal diagram may prevent the disease outcome for at least some members of a population. An intervention that removes any one of the arrows in Figure 3, whether by introducing electricity to a rural community to allow for refrigeration, teaching illiterate mothers to read, or bringing low-cost water filters to an urban slum, could be successful in preventing at least some cases of childhood diarrhea. Solutions to community and global health concerns often must address broad socioeconomic and environmental issues and not just household problems.

There are three levels of prevention (Table 1). When modifiable risk factors for a disease have been identified, the goal is primary prevention, preventing the disease from ever occurring. Primary prevention methods include immunizations, improved nutrition, adequate sleep, safety devices, health education, and any interventions that reduce susceptibility to infection, injury, or disease. The goal of secondary prevention is to diagnose disease at an early stage when it has not yet caused significant damage to the body and can be treated more easily. The aim of tertiary prevention is to reduce complications in those with symptomatic disease in order to prevent death or minimize disability.

Given the three levels of prevention, there is almost always some intervention that could improve the health of those who are vulnerable to a particular disease or are already sick. Most public health campaigns focus on primary prevention, such as the promotion of hand washing, breastfeeding, mosquito net use, family planning methods, and immunizations. Some prevention work focuses on changing the health environment by spraying insecticides to kill the mosquitoes that spread infections, implementing clean delivery room practices to prevent infections of new mothers and newborns, and increasing access to improved sanitation facilities to prevent diarrhea. Other efforts focus on improving access to health care and health insurance, to essential medications and micronutrient supplements, and to healthy foods through community-building and policy changes.

These are in addition to secondary prevention activities such as screening promotions and tertiary prevention methods that treat existing diseases and disabilities.(Services. 2012) Global Health and Health Transitions.

Table 1: Levels of Prevention

Level	Also Called	Target Population	Goal	Examples
Primary Prevention	Prevention	People without disease	Prevent disease from occurring	• Giving vitamin A capsules to at-risk children to prevent blindness • Giving tetanus shots to pregnant women to prevent tetanus
Secondary Prevention	Early diagnosis	People with early, non symptomatic disease	Reduce the severity of disease and prevent disability and death	• Screening with mammography to detect cases of breast cancer in early stages. • Checking blood pressure routinely to detect early hypertension.
Tertiary Prevention	Treatment and rehabilitation	People with symptomatic disease	Reduce impairment and minimize suffering	• Detecting cases of acute respiratory infections in children early so they can be treated with antibiotics. • Checking for foot problems among diabetic persons so they do not develop into severe ulcers. • Providing physical therapy to people who have been injured in a vehicle accident in order to prevent long-term disability

CHAPTER THREE

METHODOLOGY

3.1 Study Design (Research Methods)

This was a qualitative (descriptive) study that was conducted between January 2016 and February 2016.

3.2 Target population

The proposed project will benefit all members of the communities in the two districts that from the MKTA as well as people from the adjoining districts. Opinion leaders and potential beneficiaries in the MKTA were therefore used as subjects for the study.

3.3 Sampling

Community entry: Initial community entry was conducted. This involved informal meetings with the traditional and political leadership of the MKTA to obtain clearance for the conduct of the interviews. These meetings were brief and involved provision of information on the proposed project to the leadership and to solicit their support for the conduct of the interviews. These contacts was also be used to make appointments with these leaders for later in-depth interviews.

In-depth interviews (IDIs) and focus group discussions (FGDs) were conducted with stakeholders and key informants within the traditional area. Respondents to the IDIs and FGDS individually consented to participate in the study.

Consent for Participation: A study consent form was served on the participants for the IDIs and the FGDs. The forms had an information section where the interviewer provided summary information on the reason for the study, explained that participation in the study might not provide direct benefits to the respondents but will help design the multi-purpose health centre

project to be beneficial to the entire community including themselves in the future. They were assured that there would be no harm in participating in the study. All respondents were also assured that the information they provided would be handled with utmost confidentiality. After interviews, responses were anonymized for the all the analyses and respondents could only be identified with unique study IDs. Consenting included agreement to have all the interviews recorded. Where respondents refused being recorded, this was not done. Respondents were also informed of their rights to withdraw from the study at any point, even after initial consent, at the start, during or at the end of the interviews and FGDs without prejudice to any health services they received from the health delivery system in the MKTA.

In-depth interviews (IDIs): A maximum of 20 IDIs were conducted with key informants from the MKTA although sampling was by saturation where interviews were conducted with respondents until no new information was available. If saturation was not reached, a total of 20 IDIs were conducted, 10 from LMK and 10 from the UMK districts to reflect a fair distribution of the districts (although LMK bigger and larger population slightly than UMK) and geographical proximity to the proposed facility (would be headquartered in the LMK district). These key informants were purposively selected to reflect representativeness of the area (MCE, DCE, DDHS, Educational Directors, Medical Superintendents, Nurses, Midwives, Traditional leaders, Women, Men, and Religious/Opinion Leaders). An interview guide was developed for the purpose of the IDIs.

The summary of the key themes covered in the guide are shown in Box 1 below.

Box 1. Thematic areas to be covered in the In-depth Interviews and Focus Group Discussions
• Perception of the status of health of the community • Availability of health services in the community: preventive, curative and rehabilitative • Accessibility of these services to the members of the community • Current gaps in the provision or access to services • Acceptability of the proposed project (to the leadership and the population) • Availability of resources (land, human) for the development of the project • Who would benefit most and who needs it most • What would make people patronize and how do we increase awareness about the facility • Anticipated challenges setting up or running the project and how to overcome these challenges • Challenges in access to the facility (geographical and financial) • Other issues.

Focus group discussions (FGDs): Six FGDs were conducted with members of the community in MKTA (three in the LMK municipality and three in the UMK District) to explore overarching issues that might emerge from the IDIs. It is envisaged that, some issues that might emerge from the IDI responses could lend themselves better to community level consensus and perceptions rather than individual opinions. Some of these issues were to be explored during the FGDs. In order to allow respondents to contribute freely during the FGDs without fear of intimidation, respondents were stratified to form homogeneous groups after selection. Each FGD therefore comprised between 5 to 8 respondents stratified into all women's group, all men's group and the

youth. As explained in the previous section, each respondent individually consented to participate in the FGDs.

3.4 Pre-testing

All interview guides for the IDIs and FGDs were pretested among respondents within the study area who had similar characteristics to the target respondents but who were not be part of the actual study. Three IDIs were conducted for the pretest and the responses helped to assess and refine the validity of the guides and to ensure that the duration of each IDI was between 45-90 minutes and duration of FGDs was up to 120 minutes.

3.5 Data Handling

Interviewers obtained notes during all IDIs and FGDs. These notes included non-verbal body languages and other nuances that provided contextual interpretation for the responses from the study. The notes were also included information on the exact location of the interview; appearance of the respondents; timing, interruptions; intrusions during the interview; and the cordiality maintained between participants during FGDs. All notes were translated into English and transcribed in Microsoft Word on the day of the interview to ensure a detailed recollection of the interviews. These transcripts were augmented by information from the digital recording. Direct quotations were reported in the voice of the respondent or paraphrased and reported in the voice of the interviewer.

3.6 Data Analysis

All IDIs and FGDs transcribed into Microsoft Word and entered into MAXQDA version 12 software for analysis. The qualitative data and the audio was added to give a complete picture of this needs assessment.

3.7 Data Analyzed

All the transcribed scripts was entered into data analyses software for analyses (MAXQDA and Excel spreadsheet). The analyses adopted a hybrid approach starting with a framework of key thematic areas. Emerging themes were added as they were encountered during the analysis. Some analyses were therefore out during data collection to identify emerging themes for exploration during subsequent interviews. Responses were coded to pre-defined thematic areas. The analysis involved multiple reading of the scripts for full comprehension including contextual notes taken and added during the transcription, analysis of trends, relations and their contextual interpretations. Inter-relationships between themes was also be explored.

3.8 Ethical Considerations

Ethical clearance and approval for this study was be obtained from the Committee on Human Research Publications and Ethics of Ensign College of Public Health, and the Ethical Review Committee of the Ghana Health Service. In addition, as explained in previous section, each respondent consented for participation in the study.

3.9 Limitations of Study

The sample size is small and includes respondents who were purposively selected. The FGD samples is not representative enough. However, the in-depth interview allowed respondents to provide deep and insightful responses. Notwithstanding, any attempt at generalization or transfer of the findings ought to be informed by caution. The use of the focus group discussion also made vocal participants overshadow less vocal ones in terms of their

responses although care was taken to minimize that. Clearly, some participants were seen to be trying to respond to almost all questions and issues.

Secondly, translating FGD question guides from English language to Dangme had its own limitations. It was possible that some responses may not have been given their ‘accurate’ rendition in the English language.

CHAPTER FOUR

RESULTS

4.1 Background Information of Respondents

Six focus group discussions were held involving a total of forty-six (46) respondents. These were conducted in groups of between six (6) to ten (10) respondents. Respondents comprise twenty-four (24) males and twenty-two (22) females. Twenty (20) In-depth Interviews (IDIs) were conducted; ten (10) within the Upper Manya Krobo and ten (10) within the Lower Manya Krobo areas respectively.

Table 2 below depicts details of this:

Table 2: In-Depth Interviews and Focus Group Discussions

	In-Depth Interviews	Focus Group Discussion
Number of participants	20	46
Gender		
Male	9	24
Female	11	22
Average age of participants	57	34
Site of data collection		
Lower Manya Krobo	10	23
Upper Manya Krobo	10	23
Highest education level of participants		
None		6
primary/junior high level		20
secondary/tertiary education	20	20
Occupation of participants		
Government-employed	17	2
Formal, self-employed		9
Informal, self-employed	3	25
Unemployed/Student		10

4.2 Community Perception

Respondents in the focus group discussions and in-depth interviews were unanimous in admitting that the health status of the community was very low because disease prevalence in the area was very high. They displayed a clear understanding that there is a paradigm shift from communicable or infectious diseases to non-communicable or chronic diseases. They admitted further that all who appeared to be healthy without knowing their health status were just living by the "Grace of God" or attributed it to some other factor outside the scope of this study. This was typically put by a respondent as follows:

> *"The Health status of the community is not all that good because most people especially the aged are diabetic and hypertensive. Most people in their forties face a lot of health challenges and I really do not understand whether it is about the food we consume in this community. You can see people who appear healthy, who you interact with then the following day what you hear is that the person is dead"**. (FGD-35years old mother).***

4.2.1 Level of Enthusiasm

All the community/leadership participants were all unanimous that the proposed multi-purpose health centre would be highly acceptable to the leadership of the community and the entire populace of the study area. They were highly enthusiastic about the facility. This was typically set forth as follows:

> *"The multi-purpose health facility is 100% welcome in the community"**(IDI-53year old Opinion Leader, Chief and Educationist).***

*"The health centres are not many hence so many people crowd at the hospital resulting in long queues and unnecessary delays, sometimes resulting in preventable deaths"**(FGD-33 year old Hairdresser)***

4.2.2 Mode of Management of the Facility

Most Respondents in the focused group discussions were of the view that the facility should be supervised by a church, in the hope that the leadership of the church would take proper oversight responsibility for its effective management. This is typically expressed as;

*"…for the facility to be well managed it should be operated by a church" (**FGD-47yr old Hairdresser).***

Some Respondents also expressed concern that for the project to be community owned, the entire leadership, especially District and Municipal Chief Executives, Traditional leaders, Directors of Education, Opinion leaders, Assembly men/women and Religious leaders should be represented in the leadership that will provide overall supervision to the facility's management. In other words they were proposing some form of a Board with wide representation from key leaders in the study area.

*"The Multi-purpose health facility should be managed by a committee comprising representatives drawn from the traditional leaders, directors of health and education, the medical superintendents, the religious leaders, GPRTU, the MCE and DCE and religious/ opinion leaders in the community. They should all be involved "**(FGD-44 years old Driver).***

All the respondents expressed concern that the facility should not be handed over to government; instead it should be operated as non-governmental organization.

*“The facility should not be run by government but should be run as a non-governmental organization” (**FGD-47yr old Hairdresser).***

4.2.3 Siting of facility

Respondents were divided on this issue. Almost all those from the Upper Manya Krobo area held the view that the facility should be sited in the UMK area. Only a few from the Lower Manya Krobo however asserted that the facility should be sited mid-way between the UMK and LMK area. Views expressed by some Respondents were as follows:

*"the facility should be sited at the Upper Manya Krobo area because the health challenges are more pronounce and the only district hospital that serves the place is under-resourced hence more cases are referred to other facilities and when people go to hospital they spend virtually the whole day before they are attended to and return home." **(FGD-55 years old Driver).***

*"It should be sited at "Obopah"(mid-way town) so that it will be accessible to both Lower and Upper Manya residents"**(IDI-61 years old Public Official).***

4.2.4 Mode of Financing of Services

All respondents reported that access to comprehensive, quality health care services was important for the achievement of health equity and for improving the quality of a healthy lives for everyone. They admittedly however that it depended on the ability of patients to afford the services obtained. Therefore some Respondents were of the view that to gain easy access to healthcare, everybody without exception should be made to register with National Health Insurance Scheme summarized in the responses below:

*"The services are accessible but poverty is a hindrance"**(FGD-32 year old Teacher).***

*"Education has to be given to the community in order to sensitize them about the NHIS concept in healthcare delivery so that patients can use it in the facility"**(IDI-54 year old Director of Education).***

Some Respondents also held the view that the NHIS was failing to deliver as expected and therefore not a reliable means to finance the services at this facility. This was expressed as follows:

*"One could talk about the NHIS where large percentage presumably about 95% patronize the system. There are challenges however, all over the country in terms of returns in the acquisition of drugs from various drug outfits. Payment of arrears over one year has made it difficult to accumulate resources to provide health care in the area. As a result of inadequate resources the hospital finds it difficult to meet the drug requirements of the patients. Prescriptions are given to patients to go to the pharmacy shops to buy. Most of the patients are not able to buy because they are not financially resourced"**(IDI-58 years old Educationist).***

Other respondents expressed the view that those patients registered with NHIS were not given quality drugs expressed by the comment below:

*"Those with NHIS are given generic medicines but those without NHIS are well treated, given prescriptions for more effective drugs"**(FGD-35 year old Seamstress).***

*"Concerning the NHIS, it could be observed that it is not properly organized because patients are made to pay for the drugs even though they possess health insurance cards. And those who are given drugs are supplied with those of less quality than those sold at dispensing pharmacies"**(IDI-53year old Opinion Leader, Chief and Educationist).***

Others hold the opposing position that drug administration at hospitals were done to accommodate all people from different backgrounds but that did not mean that the drugs were inferior as claimed by some Respondents:

> *"All these clinics and hospitals are open to the public; with NHIS certificate, accessibility is no longer a problem, it's affordable. Certain drugs are given out if you show your registration card. Drugs are identified and categorized to fit into the poverty range in Ghana. If you are affluent they can prescribe a higher price of medicine for you. That does not mean the efficacy of the medicine on the NHIS is poor"**(IDI-61 year old Public Official).***

A number of Respondents reported that the facility in this study should be registered, so that NHIS could be used to access health care and other services which are not covered by the NHIS such services should be paid out of pocket, however at a moderate cost. This was typically put as follows:

> *"The facility should be properly registered so that patients could access health care delivery through the use of NHIS with respect of treatments that are hooked to the NHIS. However for other services that are not accredited with NHIS, patients could pay out of pocket but the cost should be moderate."**(IDIs-52 years old Traditional Leader).***

Almost all who took part in the study reported that a major problem could be how the facility could be accessed. On this, three main issues were raised to solicit views:

> "Q*: In your opinion what will you recommend by way of payment to access the facility?*
> *R: "The anticipated challenges in running the project are the maintenance culture of the community. In order to overcome these challenges a token fee should be charged for*

*maintenance and sustenance of the project"**(IDI-53year old Opinion Leader, Chief and Educationist).”***

*R: "The National Health Insurance Scheme (NHIS) should be accredited to the facility so that people can use it for accessing the health facility"**(IDI-58 years old Educationist).”***

Few Respondents suggested that the facility should run its own insurance system where all in the community would be made to register with and pay monthly premiums. In that way anyone who wanted to access health care in the facility would be given quality care and all the drugs provided.

*"... the facility should avoid generic medicine hence it should have its own insurance which should be used to access their services. There should be the registration of all the populace who want to use the facility and a card should be issued to them which should be used for monthly premium, so that treatment and medicine giving should be free"**(FGD-33 year old Internal Decorator).***

On the issue of sustainability of the project, some Respondents suggested that there should be internally generated funds to be used to maintain the facility. This was justified by arguments that other facilities which were not accessible through the NHIS but provided excellent services were running effectively to the extent that if one did not have an appointment, one could not gain access because of high patronage:

*"Its sustainability, must be funded by Internally Generated Funds (IGF) since it’s not state owned. So it will depend on how they will fashion the Internally Generated Funds"**(IDI-61 year old Public Official).***

4.2.5 Range of Services at the Facility

All Respondents expressed diverse but serious concerns about range of services that they wanted provided at the facility. Some opined that alternative medicine practice should be integrated with orthodox medicine at the facility. This was to give room for those who had preference for herbal medicine to orthodox medicines to benefit as well. This view was expressed as follows:

> *"There are some who go for herbal treatment and if it does not work before they resort to seeking medication at the hospital. This can stopped if herbal medication is incorporated in the facility's care delivery system"* ***(IDI-55 years Traditional Leader).***

Some participants recommended the inclusion of chaplaincy services within the facility to address the spiritual needs of the people. This was also expressed as follows:

> *"A case in point was a pregnant woman who was sent to a Pastor and I happened to be around. Based on information I received, I made a great effort to save the woman. There are a lot of Churches in these areas that have taken upon themselves the duty to administer healing to people. It is dangerous because some of these Pastors have no medical experience to enable them overcome these medical challenges. To curb this challenge if a chaplain is attached to health centres/hospitals they will be encourage to go for treatment at health centres and hospitals"* ***(IDI-56 years old Educationist).***

All the respondents were unanimous in stating that the facility should be focused on the treatment of NCDs with focus on health promotion/disease prevention components supported by state of the art gym and rehabilitation centre. They further asserted that the facility should have modern and well equipped diagnostic support services such laboratory and X-ray facilities to make it a one stop-shop for obtaining health care and a separate clinic for CDs as well:

"The Health status of the community is not all that good because most people especially the aged are diabetic and hypertensive. Most people in their forties face a lot of health challenges and I really do not understand whether it is about the food we consume in this community. You can see people who appear healthy, whom you interact with then the following day what you hear the person is dead therefore this facility should have a unit focused on such diseases" ***(FGD-35 years old mother).***

"I do not know of any place where one can go to exercise to keep fit. I heard on radio that if we exercise regularly we will not be prone to hypertension and diabetics hence it will be a laudable idea if the facility can incorporate a modern equipment for exercising and rehabilitation" ***(FGD-33 years old Hairdresser).***

"There were times when one attended hospital for treatment and the experts requested for some laboratory tests but the hospital did not have the equipment for those tests. As a result one had to go to another facility, some very far to get it done before treatment can commence. Therefore if the facility could have a modern laboratory well equipped, it would help in quick and fast care" ***(IDI-55 years old Traditional Leader).***

"When persons with hypertension and diabetics attend hospital for their routine check-ups, they spend long hours and so if the facility will have a separate unit for such diseases it will help" ***(FGD-30year single)***.

Almost all respondents expressed concern that to stop or reduce maternal mortality to the barest minimum they would want a maternity clinic and maternity home where expectant mothers from hard to reach areas could be housed for a week or two before delivery in the facility.

"Concerning our pregnant women who have been dying during child birth, if the facility can have a section that will provide special care for them and possibly a home with beds where they can be housed for a week or two before delivery, particularly for the women from difficult or hard to reach areas" ***(IDI-53year old Opinion Leader, Chief and Educationist).***

4.2.6 Available Local Non-Financial Resources

Almost all Respondents held the position that the Traditional Authorities could release land for the project and the District or Municipal Assembly could help with preparing the necessary documentation on such lands. This was typically put as follows:

> *"Lands are within the power of the chiefs so they can assist in acquiring land for the facility and the documentation could be done with the support of the district or municipal Assemblies"**(IDI-64 year old Opinion Leader).***

Some of the participants asserted that the chiefs could help to get the land but these must be purchased since lands in the Krobo area were for individuals and families: This was expressed thus:

> *"Availability of land is a problem because we don't have stool lands like the Ashanti Kingdom where all lands are centralized to the paramount chief. Here, lands are owned individually. We have to look for land to buy or unless some group of chiefs or individuals donate their lands. Traditional leaders can help in identifying some areas and the people called before Konor (paramount chief) for negotiation"**(IDI-61 year old Public Official).***

Most Respondents indicated their willingness to support building the facility by providing labour. They pledged to organize their various communities to support with labour during the construction of the facility. This was expressed as follows:

> *"The communities will be willing to mobilize their members to provide free labour for the building of the facility"**(IDI- 55 years old Traditional Leader)***.

4.2.7 Local Health System Support for the Establishment of the Facility

All Respondents from the community/leaders agree that this concern can be effectively addressed by the service providers in the local area. This was expressed as follows:

> *"Regarding the health system support for the facility, the service providers will be in the best position to address that question"**(IDI-61 year old Public Official).***

4.3 Health Workers Perception

4.3.1 Level of Enthusiasm

Most Respondents welcome the idea of establishing a new facility in the traditional area noting that the new facility would augment existing. Together, it was agreed they would assist to ease the workload pressure on the hospitals/health centres:

> *"...a new facility in the traditional area will go a long way to help the populace because the numbers that show up to access health care are so many hence by the time the day is done for one (health worker) is so exhausted. Therefore a new facility will reduce their work load"**(IDI-53 years old Nurse)***

Other Respondents expressed the view that a new facility is not the best option because the resources meant for the new facility could be use to upgrade the old existing district hospital into a modern one to attract more doctors and health workers to serve the populace. This was stated as follows:

> *"...once it is coming to the community, it has to be accepted by the people. But why not use those resources to upgrade the district hospital into a standard one"**(IDI-58 year old Med Supt).***

4.3.2 Mode of Management

On this, Respondents expressed two main concerns. Firstly, views were expressed that if the facility was handed over to government, the Ghana Health Service (GHS) would provide oversight role and would staff the facility and they would be paid by government. The other view was that if it would be a community-owned facility, the community itself would have to constitute its own committee drawn from the key stakeholders for effective supervisory role. These were expressed in the statements below:

> *"... Ownership, who is owning it? Is it a private person, the government or it will be handed over to the Ghana Health Service because that will determine where the staff is going to come from"**(IDI-52 year old Public Health Professional).***

> *"There is ... Public Private Partnership (P.P.P). where Government collaborates with all the private proprietors… if this project will follow that structure then it must be worked out through the Municipal Director of Health Services to be presented at the regional level to the Regional Director"**(IDI-52 year old Public Health Professional).***

> *"There should be full participation of the community in the project. The community should therefore demonstrate a high sense of commitment and unity towards working together to implement this programme. I suggest the Traditional leaders, directors of health and education, the medical superintendents, the religious leaders, GPRTU, the MCE and DCE and opinion leaders in the community should be involved"**(IDI-54 year old Medical Superintendent).***

4.3.3 Siting of the Facility

Respondents from the Upper Manya Krobo District were of the opinion that the facility should be sited at the UMKD due to limited and under-resourced facilities in that area. This was indicated as follows:

> *"The UMKD has very serious health challenges coupled with bad road network making it very difficult for health workers to administer proper health care. Based on this the new facility for the MKTA should be sited at the UMKD"**(IDI-52 year old Public Health Professional).***

4.3.4 Mode of Financing of Services

All Respondents were of the view that to gain access to healthcare, everybody without exception should be made to register with the National Health Insurance Scheme. This was typically express as follows:

> *"Education has to be given to the community in order to sensitize them about the NHIS concept in healthcare delivery"**(IDI-54 year old Medical Superintendent).***

> *"... in terms of financial accessibility, the facility should be registered with NHIS so that the patients accessing health care from the facility can use Health Insurance"**(IDI-52 year old Public Health Professional).***

4.3.5 Range of Services to be offered

Respondents expressed diverse opinions on the range of services. These ranged from a unit for NCDs (screening for early detection and treatment) comprising disease prevention/health promotion (a gym for exercising), rehabilitation centre (physiotherapy), maternal care, nutrition unit thus:

*"... Other diseases like non-communicable diseases are of growing concern to us because when you take hypertension and its related complications, the strokes, the heart failures and others are on the increase and if the facility will have a unit devoted to NCDs it will help. In that case they can provide screening for populace for early detection and treatment "**(IDI-52 year old health professional).***

All respondents expressed interest that a rehabilitation unit should be included in the facility as indicated in a comment made below:

*"... we do not have any rehabilitation centre ...in the Lower Manya Municipality therefore it will be necessary to include them in the new facility"**(IDI-52 year old Public Health Professional).***

*"On the issue of rehabilitation, there may be a deficit after curing the patient and there is no physiotherapy department to assist and therefore a rehabilitation unit is important component which must be included"**(IDI-54 year old Medical Superintendent).***

Most respondents suggested the inclusion of a state of the art gymnasium to keep people fit. This was expressed thus:

*"...people do not take exercise seriously and this affects their health status. It will therefore be helpful if a state of the art gym is included in the facility"**(IDI-56 year old health professional)***

Some Respondents reported that due to the high maternal mortality rates in the area, a maternity clinic should be incorporated into the facility as follows:

*"There have been improvement in maternal health with regards to the maternal deaths. Last year (2015) there were fifteen (15) maternal deaths per district but of this only three (3) were institutional maternal deaths. The facilities do not have maternity waiting home where expectant mothers from far and hard to reach places can be housed for a week or two before delivery therefore such a unit should be included in the facility"**(IDI-52 years female public health professional).***

All Respondents indicated that a nutrition unit should be included in the facility. This assertion was expressed below:

> *"with respect to children under five (5) and above, there is high prevalence of malnutrition and stunting in the Lower Manya Krobo Municipality Therefore if the facility could have a nutrition centre in the LMKM it will help reduce this incidence"**(IDI-52 years old health professional)***.

Again most Respondents reported that because of the high prevalence and the increasing incidence of HIV/AIDS, the facility should devote a unit to provide care and support for persons living with HIV/AIDS and other communicable diseases. This comment summarizes the suggestion:

> *"There is high prevalence of sickle cell anemia, HIV and TB. However, HIV and TB are linked. In my opinion the high incidence of HIV will require collaborative effort in providing care and support for them and also for other opportunistic infections therefore there should separate CD clinic in the facility to attend to such needs"* ***(IDI-56 years old male Medical Superintendent) .***

4.3.6 Available Local Non-Financial Resources

All Respondents reported from both the interviews and the focus group discussions that the traditional authorities could be consulted to provide land for the facility. This was expressed in the statement below:

> *"Lands are within the power of the chiefs so they can facilitate acquisition of land the project while the district or municipal assemblies help with the documentation"**(IDI-58 year old Medical Superintendent).***

Some respondents also stated that the community will be willing to provide free labour for the construction of the facility. This assertion was perhaps based on their support in the construction of a similar public facility, the nutrition centre at Asesewa. A comment posted below was made to that effect:

> *"There will be the full participation of the community in the project. The community will demonstrate a high sense of commitment and unity towards working together to implement this programme. They previously supported in the building of the nutrition centre"* ***(IDI-54 year old Medical Superintendent)***

4.3.7 Health System Support

Respondents reported that they supported the establishment of the facility and gave assurance to support its management and operation. There was a strong indication that they would bring all the necessary expertise to bear in the running of the facility as follows:

> *"Since the facility will be set up in the MKTA where we are currently working and support they will need in terms of expertise input we will be willing to provide. If the facility has a rehabilitation centre it save us the trouble of always referring people to other facilities outside of the traditional area for physiotherapy. Again if the centre has a well equipped laboratory all referred cases due to inadequate laboratory for diagnosis before treatment will be curb"****(IDI-58 years old Med Supt)***

4.4 Comparing the Perceptions of Community Members, community leaders and Health Workers

The analysis under this section compared the perceptions of both the community and the health workers.

Criteria	Community members	Community leaders	Health workers
Level of Enthusiasm	High	High	Moderate
Mode of Management	Non-governmental	Non-governmental, preferably faith-based with a committee-based board	Government
Site of facility	Currently district of residence	Currently district of residence	Upper Manya Krobo
Mode of Financing	Multiple: Out of pocket, NHIS and alternative community-based health insurance	Multiple: Out of pocket, NHIS and alternative community-based health insurance	NHIS
Range of Services	Multipurpose: Preventive (screening and sports) and curative	Multipurpose: Preventive and curative plus chaplaincy and alternative medicine	Multipurpose: Preventive and curative
Mentioned available local non-financial resources	Communal labor and job opportunity for community members	Communal labor and land from traditional authorities	Land from traditional authorities
Local Health System Support	Mix of GHS and non-GHS staff	Mix of GHS and non-GHS staff	GHS-Staff

Figure 4: Comparison of the perceptions of community members, opinion leaders and health workers

4.5 Current distribution of health resources

Table 1 shows the distribution of orthodox health facilities in the area. In the MKTA, there are three public hospitals (Akuse, Atua, and Asesewa), one Member hospital of the Christian Health Association of Ghana (CHAG) one (l) at Agomanya for the Catholic Mission, eight health centres and nineteen community clinics and CHPS compounds. The private sector is less developed except for two private clinics, maternity homes and pharmacies and chemical sellers. A network of community health volunteers supports health service delivery through community mobilization for outreach clinics, immunization days and for other health activities.

Table 3. Health Facilities in the District

FACILITY TYPE	LOWER MANYA KROBO DISTRICT				UPPER MANYA KROBO DISTRICT			
	PUBLIC	PRIVATE/ CHAG	FACILITY/ POP	TOTAL	PUBLIC	PRIVATE/ CHAG	FACILITY/ POP	TOTAL
HOSPITAL	2	1	1:29,749	3	1	-	1:68,905	1
HEAL CENTRES	4		1:22,311	4	4	-	1:17,226	4
CHPS ZONES	9		1:9,916	9	7	-	1:9,844	7
COMM. CLINICS	1	2	1:29,749	3	-	-		-
MATERNITY HOMES		1	1:89,246	1	-	2	1:34,453	2
TOTAL	**16**	**4**		**20**	**12**	**2**		**14**

SOURCE: *(Lower Manya Krobo Municipal and Upper Manya Krobo District Assemblies)*

Non-orthodox practitioners are also prevalent with a branch of the Ghana psychic and traditional healers' association in the area. They provide a range of services and tend to be highly patronized for many conditions including bone-setting, reparation of fractured bones and treatment of mental illnesses. There are also trained and untrained traditional birth attendants providing delivery services in the district (Nyarko 2010)(Alagbo 2014).

Table 4. Distribution of Health Human Resource in Health Facilities

HEALTH PROFESSIONALS	LMK MUNICIPAL	HEALTH PROF/POP	UMK DISTRICT	HEALTH PROF/POP	TOTAL
DOCTORS	6	1:14,874	2	1:34,453	8
MEDICAL ASSISTANTS	4	1:22,312	6	1:11,484	10
MIDWIVES PRACTICING	16	1:5,578	19	1:3,627	35
MIDWIVES NON PRACTICING	18	1:4,958	-		18
NURSES	168	1:531	39	1:1,767	207
OTHERS	184	1:485	124	1:555	308
TOTAL	396		190		582

SOURCE: (Lower Manya Krobo Municipal and Upper Manya Krobo District Assemblies)

Based on the above table the Doctors, Nurses, Midwives to the population in the Lower Manya Krobo Municipality is 1: 460 whereas the Upper Manya Krobo District is 1:1044 however, the World Bank minimum threshold of 23 doctors, nurses and midwives per 10 000 population (in the ratio of 1:435)(World Health Organization 2010).

CHAPTER FIVE

DISCUSSION

5.1 Discussion

5.1.1 Level of Enthusiasm for the Establishment of a Multi-Purpose Health Facility for NCD prevention and care in the Manya Krobo traditional area

In this study we have found that the level of enthusiasm in respondents' (community/leaders and health workers/authority) perception of the establishment of a Multi-Purpose Health Facility for NCD prevention and care in the Manya Krobo traditional area is generally high. In fact this is higher in the community/leaders than the health workers/leaders. This may be due to the fact that Respondents see the additional facility with focus on NCDs as a relevant to the health needs of the people as regards early attention, thereby reducing time spent seeking medical care at health centres. These findings are consistent with an article on enthusiasm (France 2016). Indeed this is the most natural way of generating enthusiasm in a population. Doing things that we are passionate about is a great way to motivate oneself. It has also however been found that health workers/authority wish the resources for the building of a new facility be used in upgrading the existing current district hospitals. The suggestion by the health workers/authority is similar to the argument of Katiyar, 2011 that (Express Healthcare Journal) it costs less in renovating a hospital than building a new one. So, a feasibility assessment is important before taking a decision on which option is best as regards building a new facility or renovating and refurbishing an existing one.

5.1.2 Mode of Management of the Facility

The study reveals that community members who participated in the study opted for the facility to be managed as a non-governmental organization. This position is not shared by health workers who want government involvement even if there will be NGO involvement in its management. These findings are in line with WHO working document for the management of District health facilities (World Health Organization Regional Publications Western Pacific Series 1998)(Ministry of Health 2007). The practical reason for the facility to be handed over to government, as the study reveals is to facilitate provision of resources, particularly skilled human resource required for effective running of the facility. The study further shows that the community/leaders prefer the facility to be non-governmental and preferably run by a church. This assertion may have come from their belief that faith based facilities are better managed than some government facilities. In the study some participants from the community and health workers also opts for a committee comprising of all the stakeholders drawn from the political, education, health, traditional, religious, and opinion leaders, NGOs and union groups to provide management supervision. This finding is similar to a policy document for decentralised health facilities in South Africa (Tanser 2006).

5.1.3 Siting of the Facility

The study has shown that Respondents prefer that the facility should be sited at the Upper Manya Krobo District. This conclusion may have been influenced by many factors including the fact that there is only one hospital in the UMKD which is under resourced with no children's ward serving a population of sixty-eight thousand nine hundred and five (68,905). Another reason is

that it is a new district and as such a new facility will accelerate development and further increase accessibility of the facility to the populace. This finding is similar to a study carried out in South Africa (Tanser 2006). Again there is enough non-financial resources for siting the facility like continuous water supply, electricity supply (to be hooked to the national grid), land and possibly free labour availability. Notwithstanding, the study reveals that a few Respondents want the facility sited mid-way between the UMKD and the LMKM so that it can serve both areas and serve both districts equally.

5.1.4 Mode of Financing of Services that will be rendered

Participants in the study prefer that the facility should be accessed by the use of the NHIS. This is the opinion of health workers/authorities and some community/leaders. It is easy to understand the position of the health workers because they may have experiences with some patients who access health care from existing facilities and absconded without paying for their services. Challenges like this are no more as a result of the introduction of the NCHS. This finding is similar to the purpose for the introduction of NHIS(National Health Insurance Scheme 2016) and also a study done in Iran (Mosadeghrad 2014). Community/leaders are however opt for different payment mechanisms namely: paying for services through out-of-pocket cash payments, or through internally generated funds, or through creation of the facility's own insurance. This finding is most probably based on the premise that those who pay out of pocket and facility's insurance are given more effective drugs than the low cost and perceived less effective generic ones. This finding is in agreement with a similar study in United State of America(Andrews 2015).

5.1.5 Range of Services that the Facility will Offer

The study pinpoints a range of services Respondents want to be provided in the facility. The health workers and authorities are more technical and scientific in their expectation and therefore recommend these services:

- NCD clinic (including disease prevention and health promotion components):

The study reveals that all participants would prefer a separate clinic for NCDs. This finding is in accordance with what pertains in Delhi India (Rajya 2015) where the central government has established clinics for non-communicable diseases (NCDs) in 152 districts and cardiac care units in 65 districts of the country as part of a special programme.

- Screening for NCDs (hypertension, cancers) for early detection and treatment:

Participants prefer a team of workers linked with the facility who will be devoted to screening for NCDs for early treatment. This finding is in cognizance with a WHO sponsored study on screening (Strong et al. 2005) Screening people for serious diseases is receiving increasing attention as studies demonstrate the potential benefits of early detection and early intervention in preventing morbidity and mortality.

- Gymnasium for exercising and rehabilitation centre (physiotherapy):

The study reveals that having a gymnasium for exercising to improve health status is a prerequisite to health living and helps to curd the incidence of NCDs. This confirms a similar policy document by the South Australia Government (Government of South Australia 2015) The human body generally responds well to physical exercise. Substantial improvements may be anticipated in heart and lung function, muscular strength and endurance, flexibility and one's ability to respond to stimuli for most resident and helps to repair damages and reduce impairment

and minimize suffering from all sorts of ailments. This may have informed this position by Respondents.

- Maternal clinic and maternal home:

The study again concludes that Respondents expect the facility to have a maternal clinic and provide a home for expectant mothers. Similarly, it is expected that a maternal home where expectant mothers from hard to reach could be housed for a week or two before delivery so that they will be offered vital information on proper care for themselves and their expectant babies. This expectation is similar to what pertains in the USA (Outcomes-Driven Experiece and Innovative, 2016) Guiding expectant mothers, especially those that are first time mothers, can help to reduce medical and emotional complications and increase healthy outcomes for mother and child.

- Nutritional rehabilitation for LMKM:

The study also shows the need for incorporation of a nutrition rehabilitation centre in the facility. This, it has revealed, will provide support for the children with stunting and aneamia conditions in the LMKMA which reported high prevalence of these conditions among children specially five years and below. The concern is in accordance with UNICEF recommendations(Hannon 2011)

- Separate clinic for CDs:

Participants in the study stress the need for a separate clinic for CDs. This finding is important because of the high prevalence and incidence of HIV and related opportunistic diseases in the study area. These have become challenging conditions for health facilities to manage. This request is in line with California Division of CDs Control(California Departmrnt of Public Health 2016) The Division of Communicable Disease Control (DCDC) works to promptly

identify, prevent and control infectious diseases that pose a threat to public health, including emerging and re-emerging infectious diseases, vaccine-preventable agents, bacterial toxins, bioterrorism, and pandemics (e.g. avian influenza in humans).

Respondents from the community/leaders adds two services to the range of services they would prefer included in the facility. These are:

- Chaplaincy section to attend to the spiritual needs of the people.

The study shows that the people in the study area are very religious and would not opt to access health care delivery at the health centres and hospital without first seeking help from prayer camps. Respondents therefore consider it expedient to add a chaplaincy unit to attend to the spiritual needs of the sick residents. This finding is similar a study conducted at the USA (Chaplaincy Centre 2016)

- Alternative medicine (use of herbal medicine)

The habit of seeking herbal treatment has been an old concept among residents of the study area. It is therefore consistent with the finding that Respondents expect to add such a treatment within the healthcare delivery at the facility. With this approach, the hitherto uncontrolled herbal health care sector so it would be regulated by health workers. The finding is seen in a similar study in the USA (Ananth 2016). It is no surprise that the demand for complementary and alternative therapy has been booming in the United States over the last few decades.

5.1.6 Available Local Non-Financial Resources

The study clearly shows that there is consensus that among community/leaders and the health workers/authorities that traditional leaders (Paramount Chief and other Chiefs) should lead in acquiring land for the facility and should also mobilize the community members to provide free

labour. This approach is in agreement with finding in community support in building community health centres in the USA (Shea 2012).

5.1.7 Local Health System Support for the Establishment of the Facility

The study also shows that local health experts will support the establishment of the facility. They are willing to serve the populace in that new additional facility to augment the existing ones. This will certainly go a long way to reduce the work load on the facilities in the UMKD and LMKM. These findings are similar to those of other studies done in USA and Africa(Duke 2004)(Mathauer & Imhoff 2006).

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Generally, there is a strong reception to the idea of establishing a facility for NCDs in the Manya Krobo Traditional Area from the respondents (community members/leaders and health workers/authorities) from residents who participated in the study from LMKM and UMKD. There are however some issues with respect to the facility and if not addressed will lead to low cooperation and perhaps sabotaging the efforts of this new facility.

This section seeks to address the major issues raised including: participants' level of enthusiasm; mode of management of the facility; siting of the facility; mode of financing services that will be rendered; range of services that the facility will offer; availability of local non-financial resources for establishing the facility; and the local health systems' support for the establishment of the facility.

Firstly is obvious from the findings that all the respondents are enthusiastic about the project and this is higher among the community members/leaders than in some health workers/authorities. Notwithstanding, concerns remain as to whether the resources should be used to upgrade the existing Municipal or District Hospital. This needs to be given a second thought.

Secondly, based on the findings that the community/leaders and health workers want the facility to be managed differently; that is one group prefer it managed as an NGO with stakeholders comprising of MCE/DCE, Directors of Health and Education, Traditional Leaders, Religious & Opinion Leaders and GPRTU with other Respondents holding divergent views that it should be

managed with the involvement of the GHS, and yet another group holding a preference for it to be run by a religious mission there is need for further consultation and consensus on this matter. In fact these options must be weighed carefully towards implementation.

Thirdly, there is enough evidence from the findings that the facility be sited at the UMKD. The only exception to this will be if the services to be offered will not be fully utilized by the populace then the second option raised about siting it at a place mid-way may be a better option to consider.

Fourthly, the study reveals preference for the use of NHIS for paying for services and out of pocket cash payment for services not accredited under the NHIS. The study also reveals another option of the facility creating its insurance but this may not be feasible to start with. In view of the complexities involved in establishing such a local scheme. The high poverty rates will also have to be assessed vis-à-vis proposals on premium payments for such a scheme which will need a study.

Fifthly, the findings unveil the expected range of services that the facility will offer:

- A separate NCD clinic (including disease prevention and health promotion components).
- Screening for NCDs (hypertension, cancers) for early detection and treatment.

Screening people for serious diseases has the potential benefits of early detection and early intervention in preventing morbidity and mortality.

- Gymnasium for exercising and rehabilitation centre (physiotherapy)

This will help improve the health status and it is a prerequisite to healthy living to prevent incidence of NCDs.

- Maternal clinic and maternal home

A maternal clinic and a maternal home for expectant mothers from hard to reach areas will assist expectant mothers, who are first timers, to reduce complications and increase healthy outcomes.

- Nutritional rehabilitation for LMKM

A nutrition rehabilitation centre to correct stunting and aneamia in the LMKMA, a high prevalence condition among children under five years will be useful.

- Separate clinic for CDs

A separate clinics for CDs due to its high prevalence and incidence of HIV and related opportunistic diseases.

- Chaplaincy unit to attend to the spiritual needs of the people.

The people are very religious so chaplaincy services must incorporated to provide 24 hour services.

- Alternative medicine (use of herbal medicine)

Herbal treatment, will be better monitored and controlled to supplement health care provision for those who prefer it to orthodox medicine.

6.2 Recommendations

Based on the conclusions above, the main finding the Researcher arrives at is that all the respondents are enthusiastic about establishing a facility for NCD control in the Manya Krobo Traditional Area. As a result all community/leaders and health workers/authorities will give the necessary support needed. Hence, it is recommended that the Manya Krobo Youth Coordinating Council should discuss with all potential partners and allies to rally resources for the establishment of the Multi-purpose Health Centre. This will help in no small way to improve the health status of the community and reduce the incidence of CDs and NCDs.

The issues raised also give rise to the desire to have the facility tailored to certain concerns that have to be addressed. These are:

1. The facility should have separate clinics for NCDs.
2. The facility should have separate clinics for CDs.
3. Community based workers should be trained to provide screening (for hypertension, cancer etc.) services to communities in the area.
4. There is need to consider establishing the facility with a state of the art gymnasium and rehabilitation centre.
5. A maternity clinic and maternity home where expectant mothers from hard to reach areas can be housed for a week or two before delivery. This will also provide an opportunity for education on the care of their children and themselves.
6. The facility should have a nutrition unit charged with providing nutritional care necessary for optimal health outcomes targeted at anaemia and stunted growth in children.

7. The facility should integrate alternative medicine practice. This is to give room for those who prefer herbal medicines to orthodox medicines to benefit as well.

8. A chaplaincy unit should be added to the facility to address the spiritual needs of the people.

9. It is also recommended that the facility should be NHIS accredited which will give access to all card holders.

10. The facility should be sited at UMKD but this option must be considered after the necessary consultations and consensus building has happened.

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LIST OF APPENDIX

Study title: Community and Health Workers Perceptions on a Feasibility of Establishing a Facility for NCD Control in the MKTA: Participant Information Sheet & Consent Form

Part 1. Participant Information

Introduction

I am from the Ensign College of Public Health. I am conducting a study that involves research to assess the community and health workers perceptions on a feasibility of establishing a facility for NCD Control in the MKTA. This participant information leaflet explains the research study you are being asked to join. Please take all the time you need to read it carefully. You may ask questions about anything you do not understand at any time. You are a volunteer. You can choose not to take part and if you join, you may quit at any time. There will be no penalty if you decide to quit the study.

Why you are being asked to participate

You are being asked to take part in this study because you live in Manya Krobo Traditional Area of Ghana. Specifically, I am interested in talking to heads of institutions, political, educational health professionals opinion leaders NGOs, men group, women group youth group who are homogeneous in many ways between the ages of 18 to 80 years old.

Procedures

If you agree to be part of the study, a trained project staff will ask you a series of survey questions alone for approximately 60-90 minutes. Your responses will be recorded on paper, audio recorder and later entered into a computer database by study staff. The questions will only begin after you have agreed to be in the study and have signed the consent form. As a participant, if you agree to participate in this study, data from your responses may be used as part of health needs assessment for the establishment of multi-purpose health centre in the Manya Krobo Traditional Area.

Risk and Benefits

I anticipate minimal or no risk to you beyond the inconvenience of your time. There is no direct benefit to you for being in the study; however, study outcomes may lead to the establishment of multi-purpose health centre which will benefit all others including you.

Confidentiality

All data will be de-identified and will be kept private. Your identifiable data such as name or date of birth will not be used in documents, reports, or publications related to this research. All survey forms and

consent forms shall be kept in locked file cabinets. When typing your survey responses into the computer, all data will be entered without any information that will make it possible for your identity to be known. The information you provide will be kept strictly confidential and will be available only to persons related to the study (investigator, study staff and other professionals who may be evaluating the study).

I will not record your name on any of the study documents. The information you provide in this survey will be known only by me and the research team. Your responses will not be shown to other participants or community members. The original paper survey forms will be destroyed once data entry is complete.

Voluntariness and Withdrawal

Your participation in the study is completely voluntary and you reserve the right not to participate, even after you have taken part, to withdraw. This is your right and the decision you take will not be disclosed to anyone. It will not affect the care that will be offered to you at the health facility now or in future. If you join the study, you can change your mind later. You can choose not to take part and you can quit at any time. There will be no negative consequences if you choose not to participate in the study. Please note however, that some of the information that may have been obtained from you without identifiers, before you chose to withdraw, may be used in analysis reports and publications.

Cost/Compensation

Your participation in this study will not lead to you incurring any monetary cost during or after the study.

Who to contact

This study has been approved by the Institutional Ethics Committee of Ensign College of Public Health. If you have any concern about the conduct of this study, your welfare or your rights as a research participant or if you wish to ask questions, or need further explanations later, you may contact Gideon Ahuno (0244 433820) of Ensign College of Public Health. You may also contact the chairman of the Institutional Ethics Committee of the Ensign College of Public Health at (0207249180).

Do you have any questions?

Part 2. CONSENT DECLARATION

"I have read the information given above, or the information above has been read to me. I have been given a chance to ask questions concerning this study; questions have been answered to my satisfaction. I now voluntarily agree to participate in this study knowing that I have the right to withdraw at any time without affecting future health care services"

Name of **participant** _____

Signature of **Participant** _____

Date / /2016

Left thumbprint of participant

Name of **witness** _____

Signature of **witness** _____

Date / /2016

Name of **investigator** _____

Signature of **investigator** _____

Date / /2016

Community and Health Workers Perceptions on a Feasibility of Establishing a Facility for NCD Control in the MKTA IDI and FGD Guide

1. Introduction

Data will be collected from the Manya Krobo Traditional Area (Upper Manya Krobo District and Lower Manya Krobo Municipality) Community and Health Workers Perceptions on a Feasibility of Establishing a Facility for NCD Control. It will involve interviewing a purposive sample of twelve (12) in the study area and will conduct six (6). These key informants will be purposively selected to reflect representativeness of the area (MCE, DCE, DDHS, Educational Directors, Medical Superintendents, NGOs, Opinion Leaders) and six (6) FGDs two all women, two all men, and two all youth.

District/Municipal: _____ **Community: _____**

Compound number: __ __ __ __ __ __ __/

Date of interview: __ __ /__ __ /__ __ **Interviewer code: _____**

Time start: ____ ____ : ___ ___ __m **Time end: _____**

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2. Respondents characteristics:

- **Name:** (This should be the first name only)
- **Respondents ID number:**
- **Age:**
- **Sex:**
- **Occupation:**
- **Ethnicity:**
- **Education:**
- **Number in community:** (specify number of Males & Female colleagues)
- **Socio-economic status:** *(Record your opinion of whether the household is poor, average, or wealthy compared to others in the study area. You may also want to record your reasons for thinking this).*

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3. Interviewer comments:

- *Record where (what place) you actually did the interview (eg their house, under a tree, in the yard).*
- *What the respondent physically looked like or dressed like.*

- *How their mood was during the interview (eg. did they get bored, tired, look worried sometimes or all the time).*
- *Any other information such as interruptions that will help understand the context of the interview*

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4. *Perception of the status of health of the community*

Purpose for questions: This is to obtain information on prevalence of diseases in the study area

5. *Availability of health services in the community: preventive, curative and rehabilitative*

Purpose for questions: This is to obtain information on availability of health services in the community: preventive, curative and rehabilitative in the study area

Probe for the following if not mentioned spontaneously

- *Preventive services such as vaccination*
- *Curative services in the community*
- *Rehabilitation services in the community*

---

6. Accessibility of these services to the members of the community

Purpose for questions: This is to obtain information on how these health services are accessible to the members of the community

Probe for the following if not mentioned spontaneously

- *geographical accessibility*
- *financial accessibility*

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7. Current gaps in the provision or access to services

Purpose for questions: This is to obtain information on current gaps in the provision or access to healthcare delivery

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8. Availability of resources (land, human) for the development of the project

Purpose for questions: This is to inquire information on the availability of resources such land and human

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9. Acceptability of the proposed project (to the leadership and the population)

Purpose for questions: This is to obtain information as to whether the proposed project will be acceptable to the leadership and the populace.

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10. Who will benefit most and who needs it most?

Purpose for questions: This is to obtain information on those who will benefit most from the project and also about those who will need it most.

---

11. What will make people patronize and how do we increase awareness about the facility

Purpose for questions: This is to obtain information on what will make people patronize the facility and how to increase awareness about the facility.

---

12. Anticipated challenges setting up or running the project and how to overcome these challenges

Purpose for questions: This is to obtain information on anticipated challenges in setting up and running the project and how to overcome these challenges

Probe for the following if not mentioned:

- *What could be the anticipated challenges in setting up*
- *What could be the anticipated challenges in running the*
- *How to overcome those challenges*

---

13. Challenges in access to the facility (geographical and financial)

Purpose for questions: This is to obtain information on challenges in accessing the facility

Probe for the following if not mentioned:

- *geographically*
- *financially*