DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT

UNIVERSITY OF GHANA, LEGON

CHOICE OF HEALTHCARE SERVICES AND ITS INFLUENCING FACTORS IN THE SUNYANI MUNICIPALITY

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DECLARATION

This is to certify that this thesis is the result of my own work which was duly supervised, and has not been submitted anywhere for the award of another degree.

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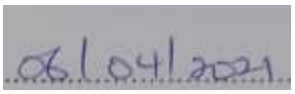

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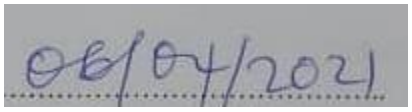

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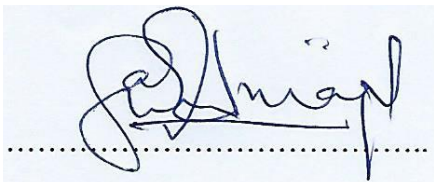

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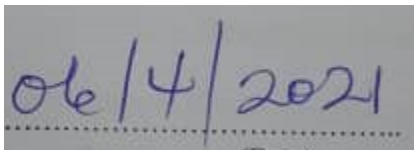

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ABSTRACT

Globally, there are a lot of healthcare services available for people to utilize. However, several factors affect the choice of healthcare leading to the non-usage of the right healthcare services. This study sought to assess the choice of healthcare services and its influencing factors in the Sunyani Municipality of Ghana. Adapting Kroeger's health behavioural model, the study specifically looked at the types of health care services used by different socio-economic groups; the factors influencing choice of health care services; and the barriers that affect choice of health care services. A mixed-method strategy was employed to distribute questionnaires to 430 respondents in four communities within the Sunyani municipality. Also, interviews and focus group discussions were organized with health professionals and community members, respectively. With the help of the SPSS software version 22, the quantitative data was analysed using tables, graphs and cross tabulations as well as a logistic regression model to predict factors that affect the choice of healthcare services for both adults and children. With the qualitative data the NVivo software was used to generate themes, and relevant quotes used to support the quantitative data. The study revealed that the choice of healthcare does not necessarily vary among different socio-economic groups when it comes to choosing healthcare for both adults and children. Although factors such as age, gender, education, income, type of settlement, travel time and distance influence choice of healthcare, these factors affect choice differently depending on the household members involved (children or adults) and the nature of illness (chronic or acute). The study also revealed that distance to a health facility, nature of transport services, waiting times, attitude of health professionals, inadequate medical equipment, cost of service, none acceptance of NHIS, and religious/cultural beliefs are some of the barriers that impede healthcare choice. It is recommended that there should be an untargeted approach by the Ghana Health Service in public education on the use of the right healthcare and the need to seek formal healthcare in all medical

conditions within the Sunyani Municipality. Additionally, government and other stakeholders should make conscious efforts at removing barriers that affect healthcare access and usage in the Sunyani Municipality.

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Also, I express my profound gratitude to my mum and my brothers for their words of encouragement, material and moral support and always believing in me. Without them, this study would have been impossible. I would also thank all graduate assistants and course mates who have contributed in one way or the other towards the completion of this thesis. May God bless and strengthen you all.

DEDICATION

This work is dedicated to my mother, Doris Appiah, my brothers, Kutin, Asamoah and Ampofo and my uncle Philip Appiah Mensah.

TABLE OF CONTENTS

DECLARATION i

ABSTRACT ii

ACKNOWLEDGEMENT iv

DEDICATION v

LIST OF FIGURES ix

LIST OF TABLES x

LIST OF ABBREVIATIONS xi

CHAPTER ONE: STUDY BACKGROUND 1

1.1 Introduction 1

1.2 Research Problem 3

1.3 Research Questions 6

1.4 Research Objectives 7

1.5 Hypotheses 7

1.6 Justification of the study 8

1.7 Organization of the study 8

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK 10

2.1 Introduction 10

2.2 Changing trends and patterns of health delivery in Ghana 10

2.3 Ghana's healthcare policy 14

2.4 Factors influencing the choice of health care services 17

2.4.1 Socio-economic factors that influence healthcare choices 17

2.4.2 Geographical factors 20

2.4.3 Healthcare provider characteristics and choice of healthcare 22

2.5 Theoretical Models 26

2.5.1 Health Belief Model 26

2.5.2 Kroeger's Health Behavioural Model 29
2.6 The study's Conceptual framework 32
2.7 Summary 33
CHAPTER THREE: STUDY AREA AND METHODOLOGY 35
3.1 Introduction 35
3.2 Study Area 35
3.2.1 Origin, Location and Size 35
3.2.2 Demographic characteristics 37
3.2.3 Social services 39
3.3 Methodology 41
3.3.1 Research Design 41
3.3.2 Research Strategy 41
3.3.3 Sources of Data 43
3.3.4 Sample Size determination 44
3.3.5 Sampling Technique 47
3.3.6 Data Analysis 49
3.4 Summary 55
CHAPTER FOUR: TYPES OF HEALTHCARE SERVICES AND FACTORS INFLUENCING CHOICE OF HEALTHCARE 56
4.1 Introduction 56
4.2 Demographic Characteristics of respondents 56
4.3 Mode of healthcare financing 59
4.4 Household morbidity 59
4.5 Socio-economic background and choice of healthcare services in the Sunyani Municipality 61
4.5.1 Adults' choice of healthcare services 62

4.5.2 Choice of healthcare services for children 68
4.6 Factors influencing the choice of health care service in the Sunyani Municipality 76
4.7 Barriers affecting the choice of health care services in the Sunyani municipality 88
4.8 Summary 92
CHAPTER FIVE: DISCUSSION 94
5.1 Introduction 94
5.2 Demographic characteristics, morbidity and healthcare financing in the Sunyani Municipality. 94
5.3 Socio-economic background and choice of healthcare services for children and adults 96
5.4 Factors that influence choice of healthcare 97
5.5 Barriers to healthcare usage and access 101
5.6 Summary 102
CHAPTER SIX: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS 103
6.1 Introduction 103
6.2 Summary of the main findings 103
6.3 Conclusions 104
6.4 Recommendations 105
REFERENCES 107
APPENDIX 1: QUESTIONNAIRE 117
APPENDIX 2: INTERVIEW/FOCUS GROUP DISCUSSION GUIDE FOR COMMUNITY MEMBERS 123
APPENDIX 3: INTERVIEW GUIDE FOR HEALTHCARE PROVIDERS 123

LIST OF FIGURES

Figure 2.1 The health belief model 28

Figure 2.2: Kroeger's Health Behavioural Model 31

Figure 2.3: A conceptual framework showing factors that affect healthcare choices 33

Figure 4.1 Household Morbidity Over the Past 12 Months 60

Figure 4.2 Diseases mostly suffered in households 61

Figure 4.3 Type of hospital visited 75

LIST OF TABLES

Table 3.1 Sample size of study communities..... 47

Table 3.2 Definition, measurement and a'priori signs of variables..... 53

Table 4.1 Demographic characteristics of respondents 57

Table 4.2 Mode of healthcare financing 59

Table 4.3 Healthcare services used by adults belonging to various socio-economic groups in the Sunyani Municipality..... 63

Table 4.4 Healthcare services used by children belonging to various socio-economic groups in the Sunyani Municipality..... 69

Table 4.5 Logistic regression model for healthcare choice for adults and children 77

Table 4.6 Communities and barriers to healthcare access 89

Table 4.7 Barriers to the usage of healthcare services..... 90

Table 4.8 Community and barriers to the usage of healthcare services..... 91

LIST OF ABBREVIATIONS

CBR	Crude Birth Rate
CDR	Crude Death Rate
CHPS	Community-based Health Planning and Services
FGD	Focus Group Discussion
GFR	General Fertility Rate
GP	General Practitioner
GSS	Ghana Statistical Service
HBM	Health Belief Model
LI	Legislative Instrument
NGO	Non-Governmental Organization
NHIS	National Health Insurance Scheme
PHC	Population and Housing Census
PHI	Public Health Insurance
SDG's	Sustainable Development Goals
SPSS	Statistical Package for Social Sciences
TFR	Total Fertility Rate

UN	United Nation
UNDP	United Nation Development Programme
USA	United States of America
WHO	World Health Organisation

CHAPTER ONE: STUDY BACKGROUND

1.1 Introduction

One major factor that affects the effective functioning of the human capital is health. Good health is essential in any society, and it is connected with economic development and wealth (WHO, 2010). Healthy people are more vibrant, energetic, and have a more positive outlook on life and development (Finlay, 2007). Healthier people have relatively higher returns to labour input and are more likely to invest in education, which plays a role in economic development (Marmot, 2005; Finlay, 2007). Therefore, there is a relationship between a healthy population and development.

The Sustainable Development Goal 3 aims at ensuring healthy lives and promoting wellbeing for all people of all ages (UN, 2015). These efforts go without neglect to the demand side of healthcare where much attention is also focused on the factors that influence people's healthcare choices. Giving patients choice has been linked to their satisfaction. Patient preferences are essential to good clinical care because the patient's cooperation and satisfaction reflect the degree to which medical intervention fulfils his or her choices, values, and needs (Zolkefli, 2017).

The notion of choice in healthcare services is a multi-dimensional concept, whose composition varies with numerous factors such as location, the facility being considered and the health and socio-economic status of the individual concerned (Comber, Brunsdon and Radburn, 2011). Previous research on public health choice and use has been in two distinct and usually non-overlapping areas. One tranche has considered the spatial dimensions related to geographic access (distances, travel times, catchments, etc) (Schuurman et al, 2006; Mclafferty and Grady, 2005; Hossain and Laditka, 2009; Shen and Hsia, 2005). Another body of research has examined health service choice by considering the socio-economic aspects related to cost, insurance provision etc, with data collected using opinion or attitude surveys (Yu, Huang and Kogan, 2008).

In the developed countries, health service demand is expected to be extremely high because of the existence of health insurance and many healthcare services. In the developing world context, underutilization is usually more of a concern and the lack of supply is considered as the main cause of under-utilization (Wellay et al., 2018). But even when health facilities are available utilization rate has been very low with factors related to financial cost of treatment, travelling cost and quality of services (Grossman, 1972). However, there have been improvements in healthcare access over the years although substantial proportions of populations still have limited access. People in these countries mostly suffer from a disproportionate burden of disease yet usually have less access to proper healthcare due to factors such as geographic accessibility, availability, financial accessibility, acceptability, or quality of care (Peters et al., 2008) which has effect on development.

Ghana is among a few low-income countries to make laws and earmark significant amounts of funding to establish universal health insurance coverage, offer enough primary benefits without cost-sharing, and start shifting to cover vulnerable populations such as the poor **(**Schieber et al, 2012**)**. Ghana transitioned its existing community-based health insurance plans to district mutual health insurance schemes, standardized the basic benefits package and administrative procedures, and has transitioned these schemes into local branches of the NHIS within five years, albeit not without problems **(**Schieber et al, 2012**)**.

The changes in healthcare financing among other things have contributed to the increase in access to proper healthcare services in Ghana. However, a lot of people still patronize unconventional and unapproved healthcare services. In Ghana, sociodemographic characteristics such as age, gender and health insurance status as well as selected modified constructs of the Health Belief Model such as Perceived Barriers to mainstream care, variously and collectively influence healthcare choices at government and private health facilities, self-medication with herbal and

pharmaceutical drugs, faith healing and care from traditional/herbal practitioners (Nuhu, 2018). Socio-economic class refers to a group of people with similar characteristics which may include social and economic standing, level of education, profession, and ethnic background or heritage (Tarver, 2020). On average the imprudent and bad choosers of healthcare will be living worse lives (Zolkefli, 2017). To the trained mainstream medical practitioner and public health observer, the concurrent use of pharmaceutical products and complementary and alternative medicines (CAM) of any type, significantly raises the potential for untoward, possibly fatal interactions, and should be a major public health priority (Nuhu, 2018).

The Sunyani Municipality located in the Bono Region, like many other areas in Ghana, has a pluralistic healthcare system with healthcare consumers resorting to care at public health facilities, private health facilities, self-medication with herbal drugs, self-medication with pharmaceutical drugs, care from traditional/herbal practitioners, and/or care from spiritual healers when they are ill. Although intervention options including the National Health Insurance scheme has helped to improve healthcare access to the mainstream healthcare service people still resort to unapproved healthcare services that could lead to serious health issues. It is against this backdrop that the study seeks to assess the choice of healthcare services and its influencing factors in the Sunyani Municipality to understand what informs people's choice of healthcare.

1.2 Research Problem

Ghana has made major strides in improving access to health services. There have been improvements in the provision of health facilities and also Community-based Health Planning and

services has been promoted as a strategy to support basic healthcare in communities (Escribano-Ferrer, 2016). The cash and carry system in the health service provision which was replaced with the NHIS that provides free maternal care among other services led to an increase in healthcare access and use in Ghana. Despite these measures, Ghana did not meet the Millennium Development Goals 4 and 5 and a lot still needs to be done to meet the current Sustainable Development Goal 3 which aims at ensuring healthy lives and promoting wellbeing for all people of all ages, especially in maternal and child health issues.

In Ghana, a combination of numerous unfavourable factors such as understaffing, inadequate structures and overcrowding, lack of health care commodities and shortage of basic equipment, and poor hygiene and sanitation, contribute to unsafe patient care leading to diminished health outcomes and harm (WHO, 2017). Several healthcare services exist which include hospitals, clinics, pharmacies or drug stores, traditional healers, self-medication, among others. In this regard, the promotion of patient choice has gained prominence to encourage competition among healthcare providers (Victoor et al, 2012). However, different reasons may inform patients' choice of healthcare service.

Studies such as Tenkorang (2016) identify healthcare provider characteristics as being a major factor in the choice of healthcare by people. Some of these healthcare characteristics include cost (see Uchendu et al, 2013; Boachie, 2015; etc.) and physical access as the major factor that influences the choice of healthcare services (Boachie, 2015). Buor (2002) concludes that the distribution of healthcare services influences its patronage by patients. Other studies have focused on patient characteristics as an issue that impacts the choice of healthcare. For instance, Obidiya et al (2011) conclude that religious and cultural factors contribute to low patronage of healthcare facilities. Also, Hart (2014) highlights the gender differences in choice of healthcare

It should be noted that the government makes efforts to improve healthcare facilities in the country and to large sections of the population. Regardless of the actual availability of healthcare resources, the choices that are made by households could have prompt or delayed care. It is important to know that whiles some researchers and organizations believe that making healthcare resources accessible and available is the key to improving health, not much research has explored the role of patient choice factors for why healthcare which may be available will still fail to improve the health of the population, especially when it comes to the Sunyani Municipality.

According to Victoor et al (2012), different patients make different choices in different situations. Therefore, some questions may arise when it comes to making these choices amongst households. For instance, are the same choices made for all household members who are sick or there are differences? To what extent are there differences in the choices of healthcare services made by household members, different households and even between communities? Looking at the healthcare choice literature and the factors that affect/influence them, identifying similarities or differences when it comes to choices made for different household members or different households with varying socio-economic characteristics has been least explored. This study, therefore, addresses this gap in the literature by considering among other things the healthcare choices made for children and adult household members and the factors that may affect these choices taking into consideration the inter household and community differences.

The Sunyani Municipality like other districts in Ghana has a number of healthcare facilities available for patients' use. The available healthcare facilities within the municipality enjoy patronage from diverse groups of people. Whilst some of these healthcare facilities may be approved, others may not meet requirements and their usage may be guarded against. However, hospitals and clinics within the district are more concentrated in particular areas within the district.

Understanding the decisions of patients on healthcare utilization is deemed critical in seeing to the healthcare needs of residents. There is not enough understanding in healthcare choices for children and adults when it comes to the socio-demographic factors that influence these choices especially in the Sunyani Municipality. Literature that seeks to highlight on healthcare choices between various socio-demographic groups; and between healthcare choices made by adults for themselves and those choices made for children is limited in the Sunyani Municipality. This will help identify the pertaining issues with regards to choice of healthcare services and give out the nuances when it comes to healthcare decisions within the municipality. There needs to be more understanding in the choices of healthcare services made by different socio-economic groups in the Sunyani Municipality. Also, the barriers that affect healthcare choice needs to be identified within the Sunyani municipality. It is therefore in this regard that the study seeks to assess the choice of healthcare services by patients for themselves and for their children and its influencing factors in the Sunyani Municipality.

1.3 Research Questions

The study pursued to find answers to the following questions;

1. Are different socio-economic groups using different types of healthcare services in the Sunyani Municipality?

2. Which factors influence the choice of healthcare for children and adults in the Sunyani Municipality?

3. Are there any barriers in choosing particular healthcare services in the Sunyani Municipality?

1.4 Research Objectives

The main research objective of this study is to assess factors that influence the choice of health care services in the Sunyani Municipality. The specific objectives will include the following:

1. To examine the health care choices for children and adults with different socio-economic backgrounds in the Sunyani Municipality.

2. To examine the socio-economic factors influencing the choice of health care services in the Sunyani Municipality.

3. To assess the barriers that affect the choice of health care services in the Sunyani Municipality.

1.5 Hypotheses

The following hypothesis will guide the conduct of the study.

1. H_O = There is no significant relationship between level of education and the choice of health care services.

   H_A = There is a significant relationship between level of education and the choice of health care services.

2. H_O = There is no significant relationship between the proximity of patients to a particular health care service and the choice of healthcare service.

   H_A = There is a relationship between the proximity of patients to particular healthcare service and the choice of healthcare.

1.6 Justification of the study

Having access to the right healthcare is a step in ensuring that people are protected from healthcare related avoidable harm. However, people still resort to unapproved and unhealthy healthcare services in Ghana even in the existence of proper healthcare options. Understanding the healthcare behaviour of the population will help in achieving two main objectives in the course of ensuring that proper health needs of the population are met and this study seeks to do that.

First of all, the study will contribute to the academic literature by providing further understanding concerning the choices of healthcare by patients. Understanding the socio-demographic, characteristics and distributional factors that affect healthcare decisions contributes to knowledge and will serve as a basis for further research. Secondly, the outcome of this study will help in policy formulation within the health sector that can be used by government agencies, ministries, NGOs among others to help formulate healthcare policies.

Specifically, this study will provide information to health care professionals at the various health services for operative policies to be made in the Sunyani Municipality and other areas that may exhibit similar characteristics.

1.7 Organization of the study

This study will be organized into five chapters. Chapter One provides the introduction of the study by focusing on specific sections including the study background, problem statement, research questions, the study objectives, hypothesis and justification. Chapter Two will provide an in-depth literature review related to the study, including theoretical models and the conceptual framework. Chapter Three will emphasize on the study area and research methodology that will be used to

achieve the study objectives. Chapter Four talks about the results of the study whiles Chapter Five provides the discussion. The final chapter, Chapter Six provides the summary, conclusions and recommendations of the study.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter consists of a review of literature on health delivery systems, changing trends and patterns of health service delivery and health policy. Other reviews also centred on factors influencing health access and utilization as well as empirical review of studies on choice of healthcare. Kroeger's health behavioural model is reviewed as an adapted reviews theoretical models and empirical literature that are related to the choice of healthcare services by patients. In this vein, two main theories which are the health belief model and Kroeger's health behavioural model are discussed. Literature on factors that affect the choice of healthcare services is discussed, challenges associated with healthcare choice, as well as a conceptual framework of the study.

2.2 Changing trends and patterns of health delivery in Ghana

Government, Mission hospitals and health centres formed Ghana's health system before independence. Only three hospitals which include Accra, Ridge and Korle-Bu were found in Accra, Ghana's colonial capital and the major purpose of these facilities was to serve colonial officials. Natives who had mental illness that required attention were catered for at the Accra Psychiatric Hospital which was built in 1906 (de-Graft Aikins, 2015). Between the years 1960 and 1966 when Nkrumah was president, thirty-five new health facilities were constructed across Ghana, and additional twelve health centres were built between 1969 and 1972 during Busia's era (Arhinful, 2003). The Ankaful hospital and Pantang hospital were established in 1965 and 1975 respectively. After independence, the health focus of Ghana during the first ten years can be described as infectious disease prevention and control. There were huge investments made into the capacity building of health professionals. These investments saw the establishment of a Medical School and nursing training school at the university of Ghana and pharmacy training school at the

Kwame Nkrumah University of Science and Technology in Kumasi in 1964. Aside from formal healthcare, strategies were also developed to role out traditional medical systems into formal healthcare in Ghana (Aikins and Koram, 2017).

There was stability in the development of health infrastructure during the period between 1970 and 1980 when there was a lot of political instability in Ghana (Agyei-Mensah and Aikins, 2010). In 1978, the Alma-Ata Declaration provided a benchmark by instituting the 'Health for All' action by year 2000. Ghana under the Ministry of Health became signatory to this agreement which led to the development of a ten-year development plan to set up and implement Primary Healthcare Services (PHC). Its implementation was however marred by the lack of resources (Aikins and Koram, 2017). After ten years, the PHC saw a boost through the establishment of the Bamako initiative by the UNICEF and WHO in 1987. African health ministers at a conference in Mali approved this initiative which had the objective of supporting and strengthening basic healthcare services in Africa with funding from donors and other means such as community financing. Although some countries within the sub-region such as Benin, Burkina Faso and Senegal saw some successes in the implementation of the program (Wiseman, 2005), Ghana abandoned the programme by 1990 due to resource and administrative constraints (Arhinful, 2003). Before these failed initiatives were established, researches were sanctioned to bring an improvement in community healthcare. Some of these programmes include the Damfa project (Ward, Neumann, and Pappoe, 1981) and a study on hypertension which was conducted in Accra (Pobee, 2006). The latter saw a further contribution into a protracted polarized epidemiological transition in Accra.

In the last two decades, there has been massive expansion in healthcare services, with major investments in the private and non-governmental sectors. In Ghana, the missions still remain the next highest in terms of the provision of healthcare aside from the government. The total number

of healthcare facilities owned by the various missions saw an upsurge to one hundred and twenty-eight in 2003, from a total of twenty-seven in 1960. This includes forty-nine hospitals scattered in the whole country (Arhinful, 2003). Other healthcare providers in Ghana currently include Muslim, private institutions and quasi-government organizations (Aikins and Koram, 2017).

Ghana has always had a pluralistic healthcare sector where the traditional medicine existed before the coming into being of biomedical facilities during the colonial era and has expanded numerically and symbolically over the decades. Healing based on faith which were mostly led by Islamic diviners and traditional shrine priests in the past is now a transnational system spearheaded by charismatic Pentecostal churches. Ayurvedic medicine, Chinese medicine, chiropractic and acupuncture, have also become a legitimate source of healthcare for Ghanaians (Kretchy, Owusu-Daaku, and Danquah, 2014; Yarney et al., 2013). Successive governments since independence have tried to integrate traditional medicine into Ghana's formal healthcare system. In this vein, the Ghana Psychic and Traditional Healers Association was formed in Ghana in 1961. Also, the Centre for Scientific Research into Plant Medicine (CSRPM) in Mampong Akuapim was formed in 1975 to lead the manufacture of safe and efficacious herbal medicines as well as the formation of the Traditional and Alternative Medicine Directorate by the Ministry of Health, as a unit to manage the Traditional Medicine sector. There was also the establishment of the Food and Drugs Board (now Food and Drugs Authority) in 1992 with the objective of testing and approving medicines such as herbal medicines and supplements. According to Aikins and Koram (2017), the move by government to integrate traditional medicine, faith-based healing and CAM has largely been a unsuccessful with policies developed over the years yet to be implemented.

There is a seeming lack of corporation between the various healthcare sectors which has led to major consequences on healthcare delivery among the populace. Although its regulations are

managed poorly, traditional medicine, faith-based healing and CAM provide major healthcare services among the length and breadth of Ghana with people with various demographic characteristics utilizing. However, these services in countless times have been fingered in the numerous avoidable health complications and deaths and contrary to general perceptions, the services rendered under these conditions can also be as expensive as the biomedical sector particularly when they are being used for a long time and in terminal conditions (Aikins and Koram, 2017).

During the colonial era, doctors, nurses and dispensers formed the main segments of the human healthcare work force. In the 1960s the pharmacy, medical and nursing schools were established to cater for capacity building in the delivery of care through the various healthcare professionals. Since this period, the has been a continuous increase in the category of healthcare professionals where additions are made in the supply of psychologists, physiotherapists, medical technicians, dieticians, community health workers, and healthcare assistants. Training of these professionals are provided by both the private and public institutions as well as NGOs (Aikins and Koram, 2017).

There have been considerable attempts formally to integrate the expanding allied health professionals into the Ghana Health Service. This notwithstanding, there are several groups that operate within the private sector who are not regulated adequately. The population of health workers in Ghana has seen an increase since 2006. The problem has however been the culture of parallel healthcare delivery which originated in the colonial era. With this culture, health officials in the public sector provide private healthcare services alongside their services in the public sector (Arhinful, 2003).

The combination of happenings in the global and local fronts have seen the triggering of massive additions in the healthcare delivery system of Ghana. For instance, in 2017, Ghana created six additional regions bringing the total number of regions in the country to 16. The creation of the new regions coupled with the corona virus pandemic has informed the development of massive infrastructure in the healthcare system in Ghana. There are plans to construct 88 district hospitals and 6 regional hospitals across Ghana (Ministry of Health, 2020).

2.3 Ghana's healthcare policy

There is some sort of link between health governance and health financing (Arhinful, 2003). After Ghana gained independence, the Nkrumah government implemented the free healthcare. However, the implementation of this policy together with many others such as education and social development brought in huge capital expenditure which brought economic difficulties on government (Arhinful, 2003). Fiscal initiatives were taken to address these challenges which further brought weaknesses in the public services. The imposition of import restrictions affected the health sector where importation of capital-intensive equipment were affected, essential drugs and supplies, which in turn affected the quality of health delivery (Arhinful, 2003).

According to Aikins and Koram (2017), during the period between 1972 and 1982 there were political turbulence in Ghana. After this period, successive governments had to appoint committees to with the mandate of reviewing health needs of Ghanaians and proposing pragmatic interventions and policies. In 1968, the National Liberation Council (NLC) government implemented a statutory dispensing fee. This was however abandoned due to a strong opposition and protests from the public. The Hospital Fee Act of 1971 was introduced by the Progress Party government to bring

about the nominal charges for drugs given to care for out patients. This cost was however considered too low to be able to cater for the full cost of hospital recovery bills. The hospital fees were maintained by the NRC/SMC government which were sanctioned by the government they succeeded. When Ghana was going through serious economic challenges in 1982, the PNDC emerged and during this period medicines and supplies were scarce coupled with challenges in the health workforce due to brain drain. The government in addition imposed more charges on imported health equipment and also increased hospital fees. Public sector healthcare became very expensive and deteriorated at the time.

Ghana adopted the Structural Adjustment Programme by the IMF and World Bank and therefore instituted health sector reforms. One of the reforms was to achieve the full cost recovery for drugs by imposing user fees in public hospitals. This was done using the Legislative Instrument 1313 which is known as the Hospital Law. During the initial stages of the law health facilities procured drugs for free from the CMS and the Ghana Medical Stores. Although the user fees created a revolving round of funding for drugs which also generated revenue for the health facilities, the system also had flaws some of which include the lack of monitoring of the of the funding streams. The system became vulnerable to abuse due to the lack of systematic information on the collection and use of the fees collected. There were illegal charging practices. In the year 1992, health facilities started paying for drugs acquired from the central and regional medical stores across the country. This change was to enable a more efficient way of managing drugs.

The period between the mid to late 1990s brought in major health reforms in Ghana (Aikins and Koram, 2017). In 1996, the Ghana Health Service was established to deliver health services across Ghana. The publication of the 1996 MOH report, Medium Term Health Strategy: towards Vision 2020, informed the development of the first five-year Programmes of Work in 1996, and two

subsequent cycles, 5YPOWII (2002) and 5YPOWIII (2005). In 1997, the government piloted a health insurance scheme in 5 districts in Ghana to test the feasibility of providing health insurance for the poor and rural communities. This programme had the objective of ending a double problem which had lasted for a period of forty years. These problems include: (1) to fund healthcare in ways that did not exclude the extreme poor and vulnerable in society and (2) to obtain additional resources to cover the shortfalls from exemptions.

After the NPP government came to power in 2001, they implemented a number of pro-poor policies through two Poverty Reduction Strategies (GPRS). One of such strategies was the extension of the district health insurance piloting to a full-blown national policy. In 2003 the NHIS was established with the aim to 'provide financial risk protection against healthcare services for all persons resident in Ghana' (NHIA, 2015: 1).

The sources of healthcare financing in Ghana have been generally the same. Since 2000, the percentage of GDP allocated to healthcare in Ghana has ranged between 3 percent and 5.4 percent. About 50 %of this budget comes from the government with the remainder coming from non-government sources which include donor funds, insurance and out of pocket payments. The proportion of payments made from out of pocket to private sources has increased in percentage terms from 63.6% in 2000 to 91.9% in 2013. In the past decade, the NHIS has grown to become a major contributor of health funding. However, by comparing Ghana to twelve other lower middle-income countries in Africa, Ghana's spending on health is low whiles the percentage of GDP spent on health is in the median range (WHO, 2016). As at 2017, Ghana's expenditure on health expressed as a percentage of GDP was 3.26% (World Bank, 2020).

Since 2008, Ghana has had two major policy reform documents; the Health Sector Medium Term Development Plan 1 (HSMTDPI) covering the period between 2010 and 2013 and HSMTDP II, covering 2014 to 2017. The HSMTDP II indicates that there are health financing challenges ahead (MOH, 2015). In this report it is observed that about 71% of healthcare funding is sourced from donors, whiles 29% comes from the government and the NHIA. Financial support from donors is expected to reduce in the short to medium term. The government therefore needs to increase its make investments in the health sector. The report provides fifteen approaches to address the health financing problems which includes 'increasing GOG revenue, reforming NHIS premiums and exemptions, improving strategic purchasing and prioritizing preventive/public healthcare service' (p. 23). Works that examine the impacts of NHIS on Ghana's health landscape, advocate the need for reforming NHIS to improve targeting and healthcare access, particularly for the extreme poor (Aryeetey et al., 2011, Witter and Garshong, 2009).

2.4 Factors influencing the choice of health care services

There are many factors that can predispose a population to choose one healthcare over the other. These may include socio-economic status of individuals, healthcare characteristics, policies and beliefs, risk behaviours of a population, and health status among others. This review looks at how these factors and several others play out in influencing choice of healthcare services.

2.4.1 Socio-economic factors that influence healthcare choices

Several studies have highlighted the relationship between demographic factors and choice of healthcare (Kroeger, 1983). These variables range between ages, income, level of education, occupation, gender, among others. Particular patient groups including those with high level of education and patients who are young (Exworthy and Peckham, 2010), patients with higher incomes (Kiiskinen et al 2010) and patients with no relationship with health personnel in a facility

(Robertson and Burge, 2011) make an active choice more often. The significance healthcare consumers attribute to choice of healthcare differ per the various patient groups. For instance, patients who are females, older, have low level of education, live far from health facilities, and those with unpleasant experience with hospitals in their vicinity tend to be more likely to have a free choice of hospital (Robertson and Burge, 2011). Also, low income earners are more likely to use public healthcare frequently and they are highly unlikely to change to private healthcare or to recommend private services (Meleddu et al., 2020).

Also, there are a lot of barriers to healthcare access associated with transportation. These barriers lead to the missing of appointments by patients, delays in the use of medication, and delays in healthcare provision. The effects of such conditions may be poor handling of chronic diseases leading to inefficient health outcomes. Barriers associated with transportation can therefore be considered as significant to access to healthcare, especially for patients who have low income levels (Syed et al., 2013).

Nunes et al. (2014) concludes that healthcare service use is similar among various socioeconomic groups but however indicated that not having access to healthcare and long waiting times to access healthcare are higher when it comes to people who have low economic status while waiting times are higher among high income earners. Inequalities are evident in the access to and quality of healthcare services (Nunes et al., 2014). Other studies have also indicated that making decisions on maternal health facilities are highly influenced by husbands, family members and other relations more than the women who bear children (Ganle et al., 2015). One of the shortfalls of improved maternal care is the impacts of some factors such as the lack of economic power of women, right to decision making, social power and gender inequality.

Also, according to Kyei-Nimakoh et al., (2017) the principal demand-side barriers to healthcare access include inadequate income in households, challenges with transportation, poor information services, stigmatization, and lack of knowledge on required healthcare services, among others. However, other studies have also shown that few patients actively choose their healthcare provider. For instance, according to Schwartz et al. (2005) only ten per cent of patients seriously considered an alternative to their local hospital when undergoing surgery. Generally, patients rely on their General Practitioner to choose for them (Dixon, Robertson and Bal, 2010; De Groot et al, 2011) or go to the nearest provider (Exworthy and Peckham, 2010). Furthermore, patients rely on their previous healthcare experiences when deciding where to receive care (Robertson and Burge, 2011). However, this seems to apply to Europe and the USA (Victoor et al, 2012). Some people do not consider choice to be very important (Fotaki et al, 2008). Consequently, these people are less likely to make an active choice. Even so, they find choosing a General Practitioner or hospital more important than choosing a hospital specialist (Anell et al, 1997).

Another reason for patients not to choose actively is that the degree of choice they experience or their ability to exercise their choice is limited. According to Fotaki (2010) pro-market policies instead of meeting the alleged needs of users are likely to promote a new type of highly volatile and fragile partnerships, and create a new subordinated user who has no choice but to 'choose' services they have little control over. Additionally, some studies found that some patient groups are more likely to be offered a choice of provider by their General Practitioner than other patient groups, e.g. Caucasians (Dixon et al, 2010), healthier patients and patients who need an operation or hospital admission (Robertson and Burge, 2011). However, this will not apply mostly in developing countries where majority of patients do not have specific General Practitioners that they consult.

2.4.2 Geographical factors

Bourdieu (1989) speaks of social space as a function of symbolic space other than talking of a the physical space. The social space normally looks at the interaction between people of different socio-economic backgrounds with differing lifestyles. There are different rewards for different agents due to the differences in locations with different cultural and economic resources. But it is also true in certain situations that the social space is synonymous to the geographical space. Lewis et al. (2018) drew on the social space and distinction concept to assess the relationship that exist between physical spaces and the choice of healthcare. Areas considered with high statuses are normally associated with better quality healthcare services compared to areas with low statuses. Where people reside influences the choice of healthcare they use and their perceptions about the places they reside. However, space is not the only factor as peoples choices are influenced by their ability to mobilize funds to pay for healthcare services (Lewis et al., 2018). Also, Esiyok et al., (2017) supports the idea of the impact of social space on healthcare choice by indicating that cultural distance as a form of social space has an impact on choice of destination for medical care after accounting for variables such as religious similarity, group of foreigners in a country, physical distance, GDP per capita and number of inbound tourists.

Research has also demonstrated the importance of where somebody resides and the social status attached to such places (Davidson et al., 2008), and has further proven that residents in disadvantaged areas are more aware of the contribution of place to health disparities than residents of affluent areas. Such research suggests that living in areas perceived or experienced as undesirable impacts on people's health actions (Popay et al., 2003), and feelings of exclusion (Stead et al., 2001). There are significant variations in urban and rural residents' destination choice

for medical trips and there are variations when it comes to within-state urban-rural differences in destination choice across states (Chakrabarti & Tatavarthy, 2019).

Developed countries have a different experience of choice as influenced by geography or place. According to Mohan et al. (2019), geographic accessibility to General Practitioner services does not in general explain differences in the utilisation of General Practitioner services in Ireland (Mohan et al., 2019). Highly accessible communities are more concentrated in the central urban areas and distributed near a healthcare service centre, and community healthcare center have the greatest accessibility among the three tiers of healthcare. Moreover, statistical analysis highlights that distinct polarized differentiation appears in the number of communities with low and high accessibility, and more than half of the communities have accessibility levels that are inappropriate for their population size (Ma et al., 2019).

Guimarães et al. (2019) argue that Proximity and remoteness may be a factor that combines with other factors such as walking safety, public transport services, personal security issues, and quality of healthcare services to influence an individual's choice of healthcare. in the study it was revealed that beyond factors such as location and distance a range of inter-related, multidimensional factors shapes the accessibility of the poor to healthcare. Even under severe financial and time constraints, people may travel longer to access facilities perceived as adequate to respond to their health needs. Narratives suggest a strong effect of healthcare inadequacies, such as the poor quality of the patient-provider relationship and the long times needed to receive medical care, on mobility strategies (Guimarães et al., 2019).

According to Fortney et al., (2011) improvements in digital access could drastically diminish the geographical, temporal, and cultural access problems faced by many patients. Conversely, a

growing digital divide could create greater access disparities for some populations. As the paradigm of healthcare delivery evolves towards greater reliance on non-encounter-based digital communications between patients and their care teams, it is critical that our theoretical conceptualization of access undergoes a concurrent paradigm shift to make it more relevant for the digital age. The traditional conceptualizations and indicators of access are not well adapted to measure access to health services that are delivered digitally outside the context of face-to-face encounters with providers (Fortney et al., 2011). For instance, the Covid-19 pandemic has given rise to the use of digital care in Ghana as some patients are self-isolated and monitored through video and phone calls.

2.4.3 Healthcare provider characteristics and choice of healthcare

Patients use some quality indicators to decide on healthcare providers because they are rational beings as anybody else (Victoor et al, 2012). These quality indicators are normally linked to past experience and the level of health literacy. The indictors used in assessing quality are measurable and grouped based on three major themes which include the structure, process and outcomes.

Structure is generally linked to the organization of the healthcare facility and looks at the human and infrastructural capacity of the service providers to be able to provide good quality healthcare for consumers. In measuring this, a lot of different items are included such as the socio-demographic characteristics of the health workers at the medical facility; treatment cost; how available the providers are; how accessible providers are; the experience and quality levels of staff; and the population and types of the staff at the facility (WHO, 2018). When it comes to the indicators that are used to measure process, it deals mainly with the delivery of healthcare process by assessing the level to which clients are given specific services by the providers that fall in line with the specific recommendations given under certain healthcare guidelines (Morris and Bailey,

2014). These indicators that determine quality help the healthcare providers to examine the appropriateness and how recommendable the care received by clients are. These are normally captured with indicators including the communication and interpersonal relationship of caregivers; information availability at the healthcare centre; sustainability of treatment; waiting times by clients at the facility; and the quality of treatment offered. With respect to outcome, the indicators used normally measure the impacts of the treatment offered by the healthcare facility which may be captured by the level of satisfaction of clients or patients with respect to the treatment received or the rate of mortality at the health facility. Therefore, health facilities with higher mortality rates are associated with lower impacts compared with facilities that record lower mortality rates (Tenkorang, 2016).

A number of studies conducted in Africa and elsewhere have confirmed the workability of using these indicators to determine patients' choice of healthcare services. According to Uchendu et al. (2013) in a study conducted in Nigeria, it was concluded that shorter waiting times, cost of treatment, the ease with getting care and satisfaction with the service received influence the decisions for patients to choose to visit a public or private healthcare service.

In a similar situation, patients in Ghana express more satisfaction when they visit a private health facility for healthcare compared with when patients visit a public health facility (Nketiah-Amponsah and Hiemenz, 2009). In a study that was conducted in three African countries which include Ghana, Tanzania and Kenya and targeted the poor as respondents it was observed that patients associated the choice between private and public healthcare with waiting times and confidentiality as the two most important factors. This was particular associated with respondents in Kenya and Tanzania but not Ghana (Agha and Keating, 2009). Also, the level of relationship with health workers, the level of convenience of visit, how available family planning services are,

and the level of perception of patients with regards to how clean the facility is all play a role in choosing a private healthcare facility over a public healthcare service. In order to improve services, it is very relevant to monitor and evaluate the level of satisfaction of clients by using the indicators of quality (Nketiah-Amponsah and Hiemenz, 2009).

Indicators that measure the structure and processes of healthcare delivery determine the choice of healthcare by patients (Tenkorang, 2016). Based on the perception of illness by females and males, women are more likely to either report or visit the health facility more compared to men (Harris et al, 2011; Bertakis et al, 2000). According to Kyei-Nimako et al. (2017), the most important barriers to the supply side of healthcare are cost of service, physical distance to health facility, waiting times in securing care, inadequate knowledge and skills of professionals, poor referral services and inadequate interpersonal relationships between clients and caregivers.

In African settings including Ghana, women are generally in charge of the health of the health of the family and this may be true that women might visit the hospital frequently to see to the healthcare needs of family children most importantly children. According to Tenkorang (2016), although women visit the hospital more compared to men, their low income levels due to their poor integration into the labour market might limit their ability to meet the cost of healthcare.

The comparatively low income levels of women might explain the low patronage of women at private health facilities compared to men. A lot of private health facilities accept the NHIS subscribers. However, challenges with the NHIS such as delays in paying insurance claims and capitation has led to challenges with access to private facilities (Blanchet et al, 2012). The high access rates, especially among women, associated with public health facilities can be linked, undoubtedly, to the coming in of the NHIS which removed the cost barrier associated with access

(Barimah and Mensah, 2013). This is not surprising therefore, considering the fact that women in Ghana who have health insurance; especially the NHIS, are more likely to visit a public hospital compared to a private hospital thus Ghanaians rely more on public health facilities compared to private facilities (Mensah et al, 2014).

Although there has been an increase in access to public health facilities over the years, there is a non-commensurate increase in the number of health facilities including health facilities and personnel which results in increased waiting times and overcrowding in government health facilities (Amporfu, 2011). In Ghana, the waiting time at public health facilities is two times compared to private health facilities for the same type of ailment treatment (Basu et al, 2012). Long queues are associated with many government healthcare facilities in Ghana which is seen as a sign of inefficient health delivery (Afrane and Appah, 2014). However, in a culture where there is a general preference for morning visits to hospitals and clinics, it will be difficult to ascribe long waiting queues to poor healthcare delivery in Ghana.

Private hospitals are characterized with shorter waiting times and giving more attention to healthcare users in Ghana (Amporfu, 2011). Apart from the waiting times, structural factors such as the state of healthcare facilities and access to healthcare facilities are associated to the use of private health service over public health service (Awoke et al., 2017). The state of public health facilities has been compared to death traps due to inefficiencies in terms of structure and administrative services at health facilities, putting users at risk of high mortality (Mensah et al., 2014). However, the healthcare system in Ghana continues to see improvements over the years with year investments into the healthcare sector. This situation can therefore not be said to be accurate in the current state of Ghana.

In Ghana, private health facilities are very common in terms of usage compared to private facilities. This is not because public facilities are better in terms of healthcare delivery but because they are cheaper in terms of cost (Tenkorang, 2016). It is therefore understandable that the wealthy and educated in Ghana prefer to visit private facilities more compared to government facilities due to the quality of service offered there (Duku, 2018).

2.5 Theoretical Models

Public health programs and initiatives are based on an understanding of health behaviours and the context in which they occur. Therefore, interventions to improve health behaviour can be best designed with an understanding of relevant theories of behaviour change and the ability to use them to produce the desired results. Theories by themselves help in the simplification of problems and provide leeway to providing solutions that are targeted. This brings the study to two major models that guide it.

2.5.1 Health Belief Model

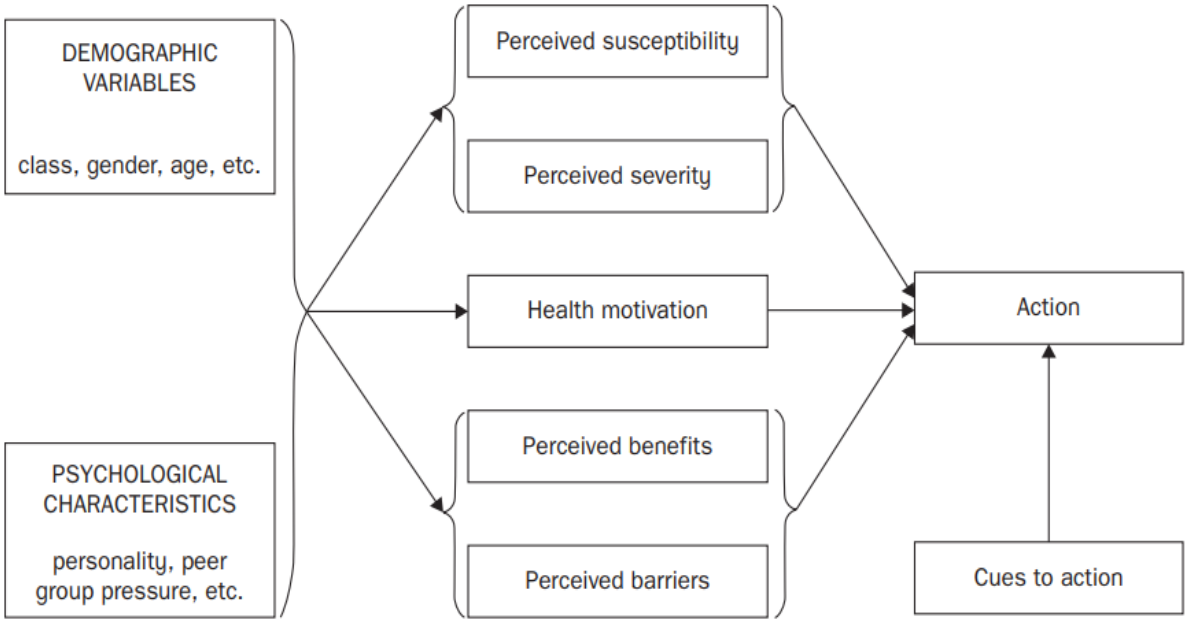
The health belief model is a psychological model that was first developed in the 1950s by researchers in the United States of America, with the motive of enhancing the effectiveness of health education programmes (Hochbaum, 1958). The health belief model is based on two main aspects of peoples' representations of health and health behaviour which are perceptions of threat and the evaluation of behaviour. With threat perception, it is interpreted as two key beliefs. These are perceived susceptibility to illness, and anticipated severity of the consequences of the illness. Behavioural evaluation is also made up of two distinct sets of beliefs; those concerning the benefits or efficacy of a recommended health behaviour and those concerning the costs of, or barriers to enacting the behaviour. The HBM views health behaviour change as based on a rational appraisal of the balance between the barriers to and benefits of action (Blackwell, 1992). According to this

model, the perceived seriousness of, and susceptibility to, a disease influence individual's perceived threat of disease. Similarly, perceived benefits and perceived barriers influence perceptions of the effectiveness of health behaviour.

In turn, demographic and socio-psychological variables influence both perceived susceptibility and perceived seriousness, and the perceived benefits and perceived barriers to action (Redding et al, 2000). Demographic characteristics such as socio-economic status, gender, ethnicity, and age were known to be associated with preventive health-related behaviour patterns (i.e. patterns of behaviour predictive of differences in morbidity and mortality) as well as differential use of health services (Rosenstock, 1974). Perceived threat is influenced by cues to action, which can be internal (e.g. symptom perception) or external (e.g. health communication) (Rosenstock, 1974).

In Fig 2.1, the framework of the health belief model is illustrated with its various components. It can be observed that, two major factors which are demographic and psychological characteristics of an individual come together to influence an individual’s perception of a disease or illness and the benefits of a solution and the various barriers to such solution. All these, together, inform the action taken by the individual to solve a particular health challenge.

Figure 2.1 The health belief model



Source: Abraham and Sheeran (2015)

There are a lot of limitations that have been identified by scholars with regards to the HBM. According to LaMorte (2018: 1) the HBM does not account for a person's attitudes, beliefs, or other individual determinants that dictate a person's acceptance of health behaviour. The model does not take into account behaviours that are habitual and thus may inform the decision-making process to accept a recommended action (e.g. smoking) and it also does not take into account behaviours that are performed for non-health related reasons such as social acceptability (LaMorte, 2018).

Also, The HBM is “reductionistic” because it leaves out emotion as well as social and other environmental influences such as culture. It is a “rational exchange” model in that it argues that individuals systematically list and weigh the barriers and benefits of a behaviour. This ignores evidence from behavioural economics that people often don’t do the mental work necessary to list

and weigh all the possible outcomes of a decision. Instead, they make decisions based on mental rules of thumb and short cuts most of the time (Houghbaum et al., N.D.).

According to Taylor et al (2007), the HBM has not been lucidly specified and practically, there is inadequacy in its usage for such purposes. In addition, although the HBM may be used to obtain information to promote interventions that changes health behaviours and beliefs, applying the HBM cannot provide the best decisions in determining how to structure those interventions.

The worth of the 'perceived threat' element serving as a primary indicator of behavioural drive in the HBM has been critiqued so has the phenomenological positioning of its design (Taylor et al, 2007). Nonetheless, the application of elements like perceived barriers and demographic and socio-economic identifiers as normally used in the HBM may be taken indirectly to assume the rationality of people where their conscious perceptions are driven by it. This suggests that people's health behaviours may be understood as being under control volitionally, other than largely determined by a mixture of incidental reality and individuals' habits, emotions, and reactions to the external world (Taylor et al, 2007).

2.5.2 Kroeger's Health Behavioural Model

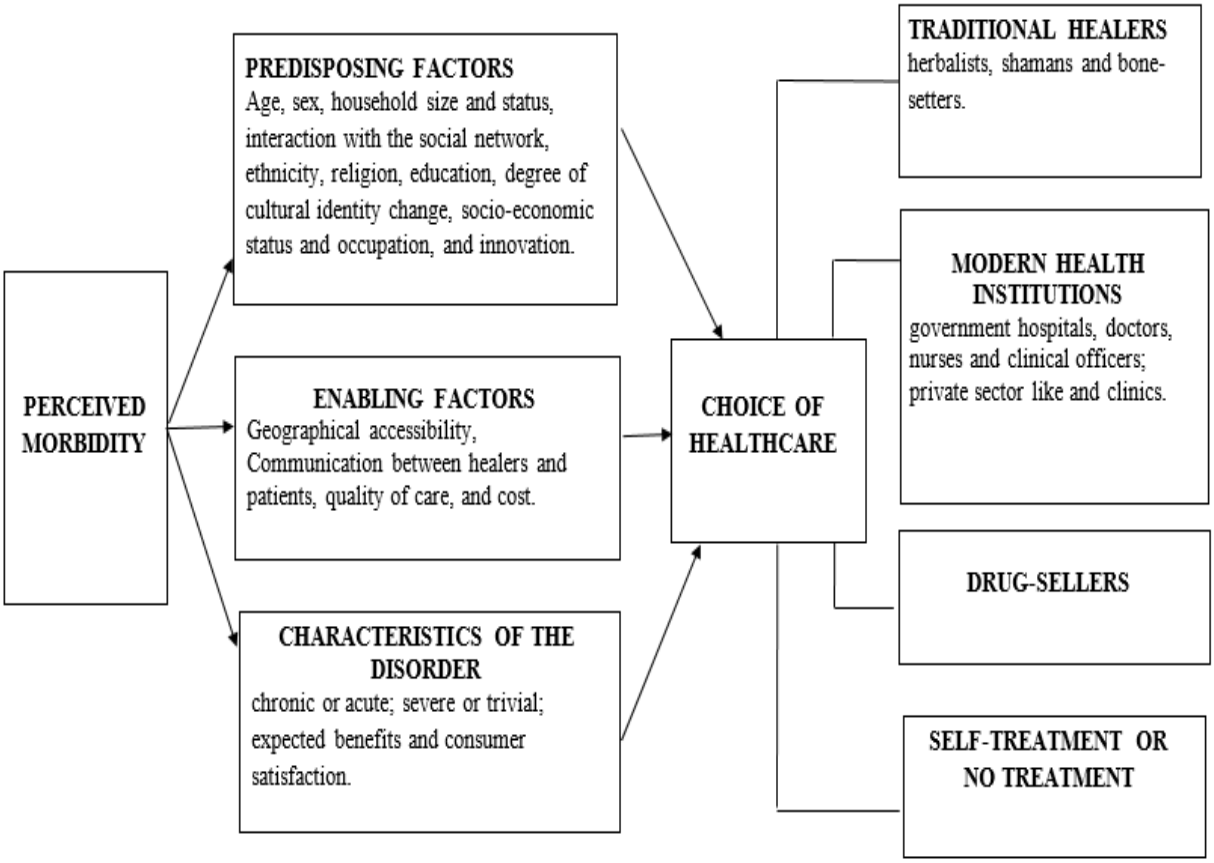
Kroeger on the basis of a literature review in the utilization of healthcare came up with a model in explaining healthcare utilization behaviour for both developed and developing countries. Kroeger identifies some variables that influence the use of healthcare which he puts in three broad categories. These include predisposing factors, enabling factors and health services system factors (Kroeger, 1983). With predisposing factors, mention is made of age; sex; household size and

status; interaction with the social network; ethnicity; religion; education; degree of cultural identity change, socio-economic status and occupation; and innovation.

However, Kroeger makes a distinction between the developed and developing countries with respect to these factors. In transitional societies of the developing world the network of interacting explanatory variables for the use of health services seems to be more complex than in industrial countries (Kroeger, 1983). Additional factors such as the continuing process of cultural change which includes the change of illness concepts and health behaviour are operating. There exists a wider range of health services both in quality and quantity as well as in socio-economic conditions (such as family size, income, social networks).

The enabling factors look at the supply side of healthcare and how that influences healthcare behaviour. Here, Kroeger makes mention of physical access, interaction among healers and patients, healthcare quality, and cost. With the third factor i.e. the characteristics of the disorder, Kroeger looks at how the condition of illness – chronic or acute; severe or trivial; the expected benefits and consumer satisfaction – play a role in a person's healthcare behaviour. Moreover, Kroeger (1983) posits that the explanatory variables affect healthcare choice and decides the direction of healthcare service utilization. The health care services include the use of traditional healers, modern health facilities, bone-setters and shamans; private health providers; and no treatment or self-treatment. A lot of studies that are conducted in developing countries site self-medication as a common practice amongst women when it comes to acute diseases suffered by them and their children (Majaj et al., 2013). He categorized these health care resources into independent variables.

Figure 2.2: Kroeger's Health Behavioural Model



Source: Kroeger, 1983

The model has been critiqued because it fails to define clearly the role of healthcare policy. Certain health policies impact negatively and positively on the pattern of use of health services. Buor (2004) for example, identifies the change in the pattern of use of health services before and after the implementation of the NHIS in Ghana. Blanchet et al (2012) supports this finding in his study on the effect of NHIS on health care utilization in Ghana.

2.6 The study's Conceptual framework

This work adapted the Kroeger's Health Behavioural model to assess the factors that influence choice of healthcare services in the Sunyani Municipality. The approach of Kroeger provides the most holistic framework for examining, analysing and interpreting factors and determinants of health-seeking behaviours and health services utilization in developing countries and also helps in understanding the inter-relationship of various factors and drivers of health-seeking behaviours from all angles (Shaikh et al., 2008).

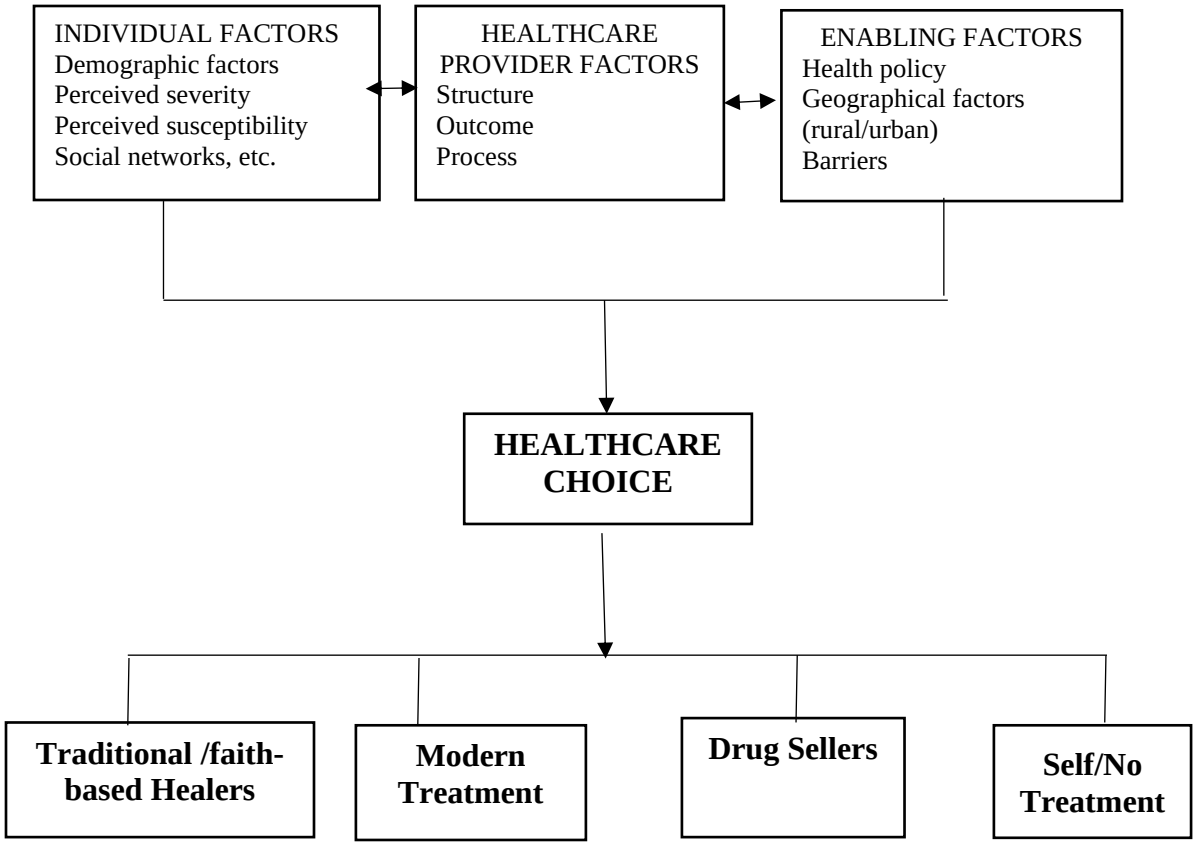
However, an important therapy that Kroeger does not account for is faith healing. Faith healing is an important and increasing phenomenon in SSA and it should therefore be taken into account when dealing with studies on health seeking behaviour in sub-Saharan Africa (Tomison, 2013). Therefore, spiritual healing was introduced in the adapted model as one of the dependent variables. Also, the model is given a spatial factor by introducing the rural-urban dichotomy and how it influences healthcare choice.

Looking at the three objectives of the study the model fits perfectly into each of the models. For instance, objective one examines the health care choices for children and adults with different socio-economic backgrounds in the Sunyani Municipality. This objective is situated in the context of how individual factors such as demographics influence choices in the household depending on the nature of the illness.

Objective two of the study sought to examine the factors that influence the choice of health care services in the Sunyani Municipality. The study used a binary logistic regression model in determining the factors that influence choice of healthcare services. This is well within the context of Koreger's HBM as a lot of factors are combined in predicting healthcare choices in the study.

The last objective of the study also looks at the barriers that influence healthcare choices which the model depicts lucidly. Figure 2.3 provides a summary of the conceptual framework highlighting the various independent variables and how they influence healthcare choices.

Figure 2.3: A conceptual framework showing factors that affect healthcare choices



Source: Adapted from Kroeger, 1983.

2.7 Summary

This chapter focused on the review of relevant literature associated with the study. The review focused on the changing trends and patterns of health delivery in and Ghana's healthcare policies. Also, factors that influence the choice of healthcare services were discussed before theoretical

models such as the health belief model and the health behavioural models were reviewed. The chapter ends with a discussion of the study's conceptual framework.

CHAPTER THREE: STUDY AREA AND METHODOLOGY

3.1 Introduction

This chapter is in two parts. The first part talks about the study area where issues such as the socio-demographic characteristics, the physical features and healthcare among others in the Sunyani Municipality are discussed. The second section talks about the methods used in achieving the study objectives. These include the research design and strategy, the sample size, sampling technique, and the kind of data analysis that was employed in arriving at the study objectives.

3.2 Study Area

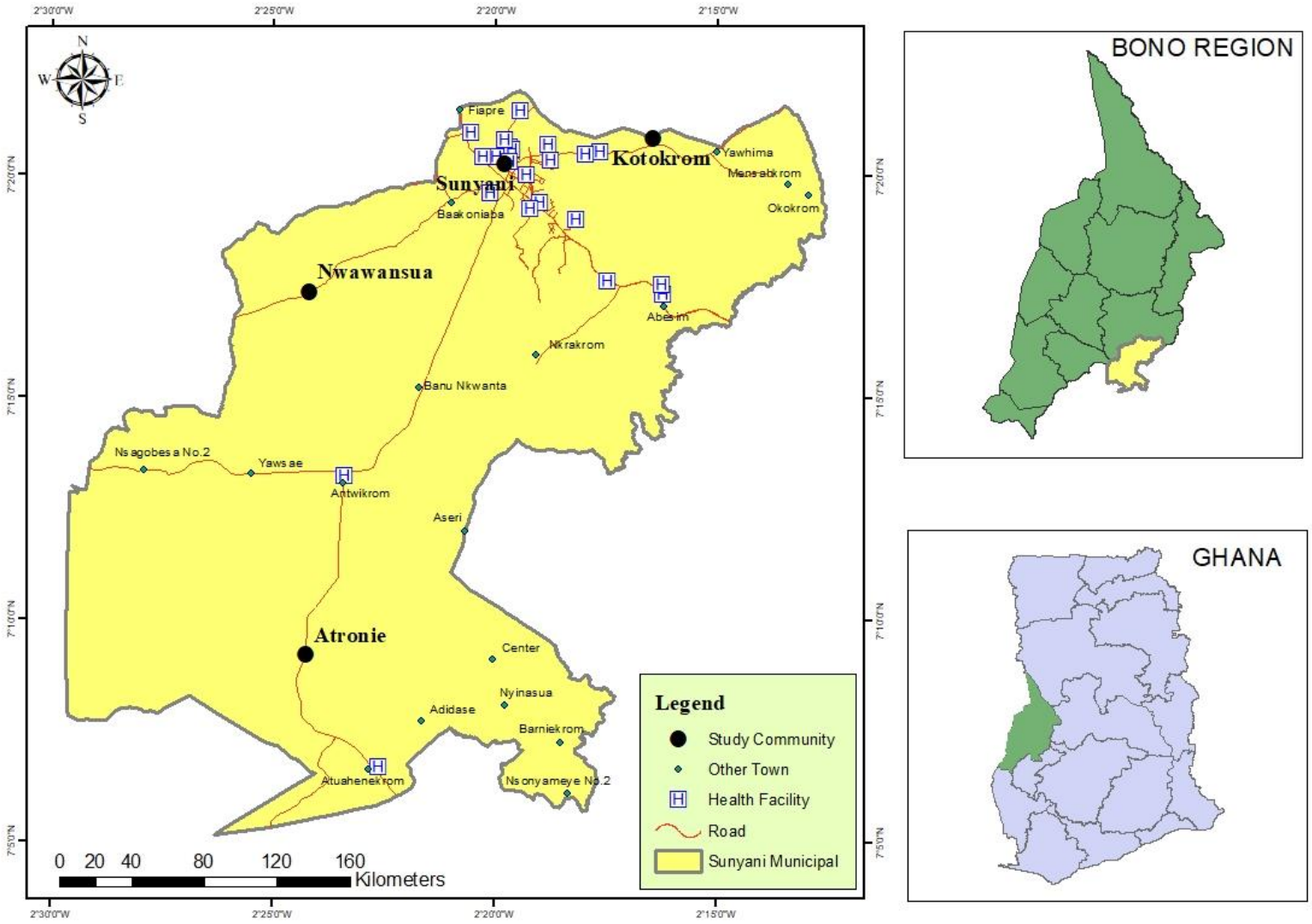
3.2.1 Origin, Location and Size

The Sunyani Municipal is in Bono region and forms part of the 27 districts in the region. The Municipality was established in 1987 by a legislative instrument (LI) 1473 when Ghana adopted the district assembly concept. The Sunyani Municipal Assembly comprises of three area councils which include the Sunyani Urban council, Abesim Town council and Atronie area council. In the year 2007, another district (Sunyani West District) was carved out of the Sunyani Municipal to form a separate district (GSS, 2014).

In terms of location, the Sunyani Municipality lies between Latitudes 7^0 20'N and 7^0 05'N and Longitudes 2^0 30'W and 2^0 10'W. The Sunyani Municipal shares boundaries with four other districts which are Sunyani West in the Northern part, Dormaa East district in the west, Asutifi District in the south, and Tano North district in the eastern part (GSS, 2014).

In terms of land size, the Sunyani Municipal covers a total land area of 506.7 Km^2 (GSS, 2014). Figure 3.1 shows the study area map of the Sunyani Municipal showing the study communities, other communities and health facilities in the municipal.

Figure 3. 1: Study Area Map



Source: Author, 2019

3.2.2 Demographic characteristics

3.2.2.1 Population size, growth and density

The Sunyani Municipality had a population of 101,145 in the 2000 Census. This increased to 123,224 in the 2010 Population and Housing Census, made up of 61,610 males and 61,614 females with a growth rate of 2.3 percent (Sunyani Municipal Assembly, 2019). Currently (thus in 2019), the population is projected to be 147,982 made up of males 72,728 and 75,254 females with a growth rate of 2.4 percent (Sunyani Municipal Assembly, 2019). In terms of settlement the Sunyani Municipal is predominantly urban with every eight out of ten people living in an urban area (GSS, 2014).

The population density of the Sunyani Municipal is 122 persons per square kilometre (Sunyani Municipal Assembly, 2010 cited in Amponsah, 2011). This figure is higher than both the Brong Ahafo regional population density (45.9/km^2) and the national population density (76/km^2) thus the municipality is densely populated.

3.2.2.2 Age and sex distribution

The Sunyani Municipal is made up of 61,610 males and 61,614 females constituting 49.9% males and 50.1% females (GSS, 2014). Although the population shows an almost equal representation between males and females, a higher number of males are however documented for the population below 10 years as the sex ratios of 106.6 and 108.8 depict for age groups (0-4) and (5-9) respectively. Similarly, a lot more males are recorded for the age groups 20-24 (107.7) and 25-29 (101.5) (GSS, 2014).

The age structure indicates an almost equal proportion of the population between ages 5 and 19, especially for the male population. As indicated earlier, the size of the population in age 20-24 for both males and females may be a reflection of the tertiary student populations in the Municipality. However, the population for both male and female decreases as the ages increases from (30-69). Not much difference is observed for the male and female population after age 75 (GSS, 2014).

In terms of the dependency ratio, in the Sunyani Municipal, the total dependency ratio is 54. However, there is variation between the dependency ratios in the rural and urban areas. The dependency ratio in rural centres is higher than the urban centres. In the rural areas, the dependency ratio is 75.9 whilst in the urban areas, it is 76 (GSS, 2014).

3.2.2.3 Household size and structure

The average household size in the Municipality is 3.9. The Municipality has a population of 1110,743. Out of this number, 38% are children, whilst spouses are made up of 10.3%. Nuclear households constitute 25.8% of the total number of households in the Municipality. There is a total of 228,431 households in the municipality (GSS, 2014).

3.2.2.4 Fertility and mortality

The Total Fertility Rate (TFR), General Fertility Rate (GFR) and Crude Birth Rate (CBR) for women aged 15-49 years in the municipality are respectively 2.61 births per woman, 73.1 births per 1000 women and almost 22 live births per every 1,000 population. These are lower than the regional averages of TFR (3.58), GFR (105.9) and CBR (26.3) (GSS, 2014).

A total of 455 deaths were recorded in the 12 months preceding the 2010 Population and Housing Census Night. The CDR for the Municipality is 3.69 indicating a lower figure compared to the regional figure of 6.14. About eight per cent (7.9%) of the total death recorded in the municipal is due to accidents, or violence, or homicide or suicide while 92.1 %is due to all other causes (GSS, 2014).

3.2.2.5 Economic characteristics

About 62 %of the total population 15 years and older are economically active while 38 %are economically not active in the Sunyani Municipality. Of the economically active population, employed and unemployed persons form 93.2 %and 6.8 %respectively (GSS, 2014).

In the Sunyani Municipality, almost 28.1% of those 15 years and above who are employed are engaged in sales and service work. This is followed by the skilled agricultural, forestry and fishery workers. The major industry that employs majority of 15 year olds and above is the agriculture, forestry and fishing (26.4%). The Manufacturing industry accounts for 8.4 %and engages 9.1 %males and 7.7 %of the working population. The construction industry contributes 4.4 %to the Municipality. About 3 out of 4 persons 15 years and older in the Municipality are engaged in the private informal sector, 14.3 %in public (government) and 10.5 %in private formal (GSS, 2014).

3.2.3 Social services

3.2.3.1 Health

There is a three-tier service healthcare delivery system in the municipality which begins from the community clinic, through the Municipal and the regional level. The Municipality has an annual fertility rate of 2.6 (Sunyani Municipal Annual Report, 2014) and a Crude Birth Rate (CBR) of 2.1 per 1000 population (GSS, 2014). When it comes to healthcare delivery, there is a regional hospital in the municipality, which takes care of the inhabitants in the municipality and serves additionally as a referral centre for the Brong Ahafo region. In all, there are three (3) health centres, one (1) mission hospital, two (2) private hospitals, three (3) Quasi clinics; Police Clinic, Prisons Clinic and thirteen (13) private Clinics, five (5) school clinics and three (3) maternity homes in the municipality. This makes a total of thirty-four (34) health facilities in the municipality. Eighteen (18) out of these facilities provide antenatal and post-natal services for the municipality. With respect to family planning services 21 out of the total of 34 health facilities in the municipality offer family planning services (Sunyani Municipal Annual Report, 2014).

According to the 2010 PHC, out of the 83,765 children ever born in the municipality 74,655 of those children survived for the female population of 12 years and older in the municipality. The

municipality has a CDR of 3.7 deaths in every 1,000 population (GSS, 2014) indicating a lower mortality in the municipality compared with the regional rate. Males appear to have a slightly higher rate than females in the population below the age of 20 (GSS, 2014). After age 29, mortality increases, and remains stable relatively for males from age 40 through 60 years. A sharp increase in the mortality rates are recorded for males from age 60 whereas females experience the sharp increase from age 65 (GSS, 2014). About eight percent (7.9%) of the total death recorded in the municipal is due to accidents, or violence, or homicide or suicide while 92.1 percent are due to all other causes. This figure is slightly lower than the regional average of (8.7%). However, 92.1 percent of deaths which occurred by all other causes is higher than the regional average of 91.3 percent (GSS, 2014).

3.2.3.2 Education

There is a total of 111 basic schools, 50 junior high schools, 5 senior high and vocational and two tertiary all under the public sector in the Sunyani Municipality. On the other hand, the private sector has 117 basic schools, 37 junior high school and 4 senior high schools. Both the public and the private sector add up to three hundred and twenty-four (324) educational facilities in the municipality (GSS, 2014). Increase at the educational level has been constant in the municipality for the last four years in both the public and the private sectors.

In terms of the literacy rate in the district, of all those who are 11 years and above, 81,118 representing 85.9 percent are literate and 13,417 representing 14.1 percent are non-literate and 72.3% can read and write both English and Ghanaian languages. Of the population aged 3 years and older, 53,269 is currently attending school whiles 46,559 have attended school in the past (GSS, 2014).

3.3 Methodology

3.3.1 Research Design

The study employed a cross-sectional research design to achieve its objectives. A cross-sectional design makes it possible for the collection of data on more than one case within a single point in time in connection of two or more variables (Bryman, 2012). With cross-sectional design, the researcher does not interfere or manipulate its study environment (Morse, 1991). Employing cross-sectional design provides the possibility of examining relationships between variables and makes finer distinctions between cases. Also, a cross-sectional design makes it possible for a systematic and standardized method for gauging variations (Bryman, 2012). This study entails assessing factors that influence the choice of health care services in the Sunyani Municipality and therefore the cross-sectional design provided an opportunity for finding relationships between some of these factors and healthcare choices. However, the cross-sectional design also has some disadvantages which might have presented some limitations in one way or the other. According to Rivers (N.D.), cross-sectional design cannot be used to analyse behaviour over a certain range of time and does not help determine the cause and effect of a phenomenon. However, it is assumed that not much in terms of healthcare policy and other conditions that could affect healthcare choice will change within the study area which will influence the present factors people associate with healthcare their choices. Therefore, collecting the same data over different periods will amount to the repetition of results. Therefore, adopting the cross-sectional research design was considered appropriate looking at its advantages.

3.3.2 Research Strategy

The study used a mixed-method strategy where both qualitative and quantitative methods of data collection were used. The problems that social scientists address is very complex and the use of

either qualitative or quantitative method to address this complexity is inadequate thus using both at the same time gives an elaborate comprehension of research problems (Creswell, 2009). According to Bryman (2012), a mixed-method strategy allows the various strengths in the qualitative and quantitative methods to be capitalized upon while the weaknesses are somewhat offset. The positive paradigm is associated with quantitative research which aligns with the idea that research is purposely conducted to identify the general patterns of behaviour. Conversely, the interpretive paradigm is aligned with the qualitative research which is based on the assumption that social reality is multifaceted consequently the aim of social research is to explain people's subjective behaviours (Bryman, 2001).

Some arguments have been made to favour each of these two approaches; The quantitative approach, which deals with the use of statistical techniques for analyzing quantifiable data, is useful for generalizations and predictions. It is also used for the specification of models and to establish correlations between different variables (Castro, Kellison, Boyd, & Kopak, 2010). In spite of the strengths, the quantitative approach is not very good for explaining behaviours and perceptions (Brannen, 1992). Also, measurements in quantitative research tend to remove findings in context of the real-world (Moghaddam, Walker, & Harre, 2003).

On the other hand, qualitative research approaches including in-depth interviews, focus group discussions, and participant observations, are very good when it comes to the generation of detailed data on the perceptions, experiences, beliefs, emotions and behaviours of respondents (Teye, 2012). According to Quinn (1980), the strategy in qualitative research is to allow important dimensions to emerge from an analysis of the cases under study without supposing in advance what those dimensions will be. Despite these strengths, qualitative research methods have been

criticized for being too subjective. They are also inappropriate for generalizations and predictions (Plano Clark, Huddleston, Churchill, Green, & Garrett, 2008).

In supporting the combination of quantitative and qualitative methods, Sharan (2002) argues that, since there are multiple constructions and interpretations of reality, mixed methods offer a tool for understanding complex problems. Since social reality is multifaceted, mixed methods designs provide an effective means of explaining the complexity of human behaviour (Teye, 2012).

3.3.3 Sources of Data

Data for the study was obtained from two main sources which are the primary and the secondary data sources. The primary data was obtained through household surveys, Focus Group Discussions and In-depth interviews. According to DeFranzo (2012), surveys are useful in describing the characteristics of a large population. This ensures a more accurate sample to gather targeted results in which to draw conclusions and make important decisions. The survey obtained information from respondents on demographic characteristics, health-seeking behaviour of the households concerning children and adults, factors influencing healthcare choices, and the barriers that affect choice.

Two FGDs were conducted in each study community which include Atronie, Nwawansua, Kotokrom and Sunayni, with women and men groups separately with each group having a maximum of 10 and a minimum of six participants. In all, eight FGDs were conducted for the study. Focus group discussion is frequently used as a qualitative approach to gain an in-depth understanding of social issues (Nyumba et al, 2018). Therefore, in order for this study to gain insights into the healthcare services used and the reasons for using those services by the various communities and households, the FGD approach was adopted.

Also, the in-depth interviews involved healthcare officials in the health facilities such as hospitals, clinics, pharmacies, and health centres as interviewees. In all, eight healthcare officials were interviewed for the study. These healthcare officials were drawn from each of the study communities. The officials interviewed consisted of four pharmacy managers and four health administrators. Two interviews with health officials were therefore conducted in each community. The six respondents were selected for the interview because it was assumed that they will provide a adequate representation in terms of the situation in each community. According to Boyce and Neale (2006), in-depth interviews provide much more detailed information than what is available through other data collection methods, such as surveys. The views of the healthcare officials interviewed were sought to understand the type of people that seek healthcare, the challenges faced in healthcare delivery, and the reasons patients choose their facilities.

The secondary data for the study was obtained from a wide range of sources. These consist of peer review journal articles, internet sources, the print media, public documents, books, among others. The information sought from these sources bothered on a range of issues such as health statistics locally and globally, healthcare policies, the literature on factors that influence healthcare choice and access, methodologies, among several others as contained in the study.

3.3.4 Sample Size determination

The unit of analysis for the questionnaire survey was the household. In this vein, the total number of households in the Sunyani Municipality was the sample population which is based on data from the 2010 population and housing census. The total number of households in the municipality is 28,431. The Krejcie and Morgan (1970) formula for calculating sample size was then used to calculate the sample size. The Krejcie and Morgan formula is advantageous because the sample size formula has been established according to the pre-determined target or accessible population

and with this method, the researcher has full control of sample size by changing the t-value based on the population size (Kotrlik and Haggins, 2001).

However, Krejcie and Morgan (1970) formula also has some shortfalls. The formula takes into consideration one-sample case which is the general case for the survey research. On the other hand, experience has shown that when such a survey is conducted, the researcher not only uses the data to estimate these parameters but also compares the responses between two or more subclassifications of respondents. For example, differences between male and female respondents are investigated as well as differences between white and non-white respondents, rural, suburban and urban respondents, etc. If the researcher plans to use the results of the survey to make such comparisons, the enclosed tables are not appropriate for determining the sample sizes necessary for effect sizes for differences between these subclassifications of respondents (Hinkle, Oliver and Hinkle, 1985; Kotrlik and Haggins, 2001).

However, other methods suggested by Cochran (1977) and Cohen (1988) will be difficult in this study considering the research design and the financial constraints of this study. The Cochran (1977) formula assumes the researcher needs to accept an error item of 5% margin error for categorical data and 3% margin error for continuous data. Also, the Cohen (1988) formula is varied according to the statistical analysis methods and the formula is generally appropriate for experimental research. Given the mixed method nature of this study, it will be difficult to calculate different sample sizes for each category of respondents such as age groups or education levels as suggested by Cochran (1977) or use different error margins to calculate different sample sizes for separate statistical tests that will be conducted in the study. The study, therefore, relied on the Krejcie and Morgan (1970) formula given its simple nature and applicability for mixed-method

study such as this. Below is an illustration of how the formula was applied in arriving at the sample size for the study.

In analyzing the data, the unit of analysis is the household level. Therefore, the total number of households in the municipality was used as the sample population but not the total population in the municipality. The study sought to identify among other things the household dynamics when it comes to healthcare choices other than separate individual choices.

$$S = \frac{X^2 NP(1-P)}{d^2(N-1)+X^2P(P-1)}$$

Where:

S = Required Sample Size

X^2= confidence level (which is 3.841)

N = Population Size (Total number of households which is 228,431)

P = Population proportion (assumed to be 0.50 since this would be the highest sample)

d= Degree of accuracy expressed as a proportion (0.05).

the sample size is therefore calculated as

$$S = \frac{3.841 * 228431 * 0.5(1-0.5)}{0.05^2(228431-1)+3.841*0.5(0.5-1)}$$

S = 385

The sample size for the study is therefore 385 households.

Proportional sampling was used in calculating the sample sizes of the individual communities selected for the study. However, due to the relatively higher proportion of the total households in Sunyani, the other three communities selected for the study had very small samples as shown in Table 3.1. Such smaller samples cannot be used to draw any statistical inference. Therefore, additional samples of 15 each were added to these three communities bringing the total sample size to 430. In all, four communities were selected for the survey. The details for selecting the four communities are contained in Section 3.3.5.

Table 3.1 Sample size of study communities

Community	Number of households	Sample size
Sunyani	17613	356
Atronie	812	31
Kotokrom	476	25
Nwawansua	152	18
Total	19053	430

3.3.5 Sampling Technique

The sampling procedures used in getting the respondents was a multi-staged sampling technique. This involved two criteria; the first was the selection of the study communities, and the second criterium was the selection of the respondents. With the selection of the study communities, considerations were given to rural and urban communities, and the distribution of hospital facilities. The Sunyani Municipal was stratified into two with one area having a higher concentration of health facilities and the other area having a lower concentration of health facilities (see Figure 3.1). All rural communities and urban communities were grouped separately in each of the stratified areas. A simple random sampling method was then used in selecting one rural and

one urban community each in the higher health facility concentration zone and same in the lower health facility concentration zone respectively. This was done by writing the names of the communities on pieces of paper and putting them into different boxes according to the groups they fall in and handpicking randomly from the boxes. Simple random sampling is advantageous because there is almost no opportunity for human bias in the selection process (Bryman, 2012). In all, four communities were selected for the survey – two rural and two urban communities. The rural communities selected are Nwawansua and Kotokrom whiles the urban communities selected are Sunyani and Atronie. Sunyani and Kotokrom have high concentration of health facilities whiles Atronie and Nwawansua had lower concentration of health facilities as shown in Figure 3.1.

The second criteria involved the selection of the respondents for the survey. The systematic sampling technique was used. The total number of households in each community was divided by the sample size in each community to get the sample fraction. The first house was then selected purposively after which every next house was selected using the sample respective sample fractions of the communities (i.e. Sunyani = 49, Atronie = 26, Kotokrom = 19 and Nwawansua = 8). However, it should be emphasized that in some of the areas the improper arrangement of the houses made it impossible to go strictly according to the sample fraction in identifying the houses. In such cases, the researcher applied meaningful distance in selecting the next household. Household heads were targeted as respondents for the survey but in instances where they were not around, their spouses or any adult household member above the age of 20 years was surveyed. However, the selection of health administrators for the in-depth interviews was based on purposive sampling technique. In all, four health administrators were targeted from four health facilities in the municipality and one official at the municipal health directorate. However, in two instances, the administrators were busy and delegated senior enrolled nurses for the interviews. These

officials were selected because it was assumed that they are in constant touch with patients all the time thus possess more knowledge in the issues under study. With the selection of the participants of the FGDs, help was obtained from the community assembly members in organising adult males and females who are above the age of 20 years. In all, two FGDs were conducted in each of the four study communities with one group consisting of males only and the other group consisting of females only. The groupings were done because the cultural settings in some of the communities made it unfavourable for females to express themselves freely in the presence of males. Participants were selected based on willingness to participate and each group consisted of an average of 8 respondents. The discussions centred mostly around healthcare choices, reasons for choices and the barriers that inhibit healthcare access.

3.3.6 Data Analysis

The data was analysed based on the objectives of the study. Objective one which focuses on the types of healthcare services used by different socio-economic groups was analysed quantitatively with the help of the SPSS software version 22. The questionnaire was coded and entered into the SPSS software. Frequencies were generated and represented on graphs with respect to the types of healthcare services used. Cross-tabulations and chi-square tests were generated to find the relationship between socio-economic groups and the types of healthcare services used. This helped in verifying the first hypothesis. The interviews and FGDs were transcribed into word documents and with the help of NVivo software, themes were generated on the reasons why different socio-economic groups use particular healthcare services and the challenges they face in making healthcare choices in order to get information to back the quantitative results.

Objective two that considers factors influencing the choice of healthcare services was also analysed both quantitatively and qualitatively. A logistic regression analysis was performed to identify the factors that influence choice of healthcare services with the method explained below.

Logistic regression

Binary logistic regression analysis extends the techniques of multiple regression analysis to research situations in which the outcome variable is binary. Since the dependent variable employed in this research is binary, the logistic regression was employed. Because the dependent variable (Y), which is whether the form of illness is treated through the formal or informal means, is a binary outcome, it is coded as Y=1 if the kind or form of illness is treated by a formal means and Y=0 if the kind or form of illness is treated through an informal means.

Logistic regression employs binomial probability theory in which there are only two values to predict which probability (p) is 1 rather than 0 which implies the event belongs to one group rather than the other. Logistic regression forms a best fitting equation or function using the maximum likelihood method, which maximizes the probability of classifying the observed data into the appropriate category given the regression coefficients.

Estimation technique

Using the determinants of the treatment form of illness variables (acute illness adults, acute illness children, chronic illness adults, and chronic illness children) to explain the basic ideas underlying the logit model, we specify Y = FI=1 to mean that treatment form of illness is by formal means,

while Y = FI = 0 if treatment form of illness is through informal means. Using the detailed exposition of the logit model in Gujarati (2004), we proceed by stating the (cumulative) logistic distribution function as follows.

$$P_i = E(Y = 1 \mid X_i) = \frac{1}{1+e^{-(\beta_1+\beta_2 X_i)}} \quad (1)$$

$$P_i = \frac{1}{1+e^{-z}} = \frac{e^z}{1+e^z} \quad (2)$$

Where;

P_i is the probability of having health insurance

$Z_i = \beta_1 + \beta_2 X_i$

$X_i = X_1, X_2, X_3, \ldots, X_n$ denotes the explanatory variables.

It can be verified that as Z_i ranges from $-\infty$ to $+\infty$, P_i ranges between 0 and 1 and that Pi is nonlinearly related to Z_i (that is X_i). But it seems that in satisfying these requirements, an estimation problem has been created because P_i is non-linear not only in X but also in the β's. This means that the familiar Ordinary Least Square method (OLS) approach will not be feasible in estimating the parameters. Nonetheless, this problem is more obvious than actual because (1) can be linearized and depicted as:

If P_i, the probability of using the formal means of treating illness, is given by (2), then $(1 - P_i)$, the probability of not using formal means of treating illness, is:

$$1 - P_i = \frac{1}{1+e^z} \quad (3)$$

Therefore, we can write

$$\frac{P_i}{1 - P_i} = \frac{1 + e^z}{1 + e^{-z}} = e^z \qquad (4)$$

Looking at equation (4), $P_i/(1 - P_i)$ is simply the odds ratio in favor of using formal means in treating illness. That is the ratio of the probability that the respondents will use formal means of treating ailment to the probability that the respondents will use an informal means in treating their ailment. Taking the natural log of (4) gives (5):

$$L_i = \text{In}\left(\frac{P_i}{1-P_i}\right) = Z_i = \beta_1 + \beta_2 X_i \qquad (5)$$

L which is the log of the odds ratio is not only linear in X but also (from the viewpoint of estimation) linear in the parameters. L is called the logit, and hence the name logit model for models like (5).

Empirical model specification

$$P_r(FI_i = 1|X_i) = \beta_0 + \beta_1 sex + \beta_2 age + \beta_3 age\_sq + \beta_4 ledu + \beta_5 inc + \beta_6 trt + \beta_7 hf + \beta_8 hins + \beta_9 loc + \varepsilon_i$$

Where;

FI = Formal means of treating illness; β_0 = a constant; $\beta_1 - \beta_8$ = are vectors of coefficient; sex=Sex; age = Age; age_sq= Age squared; ledu = Level of education; inc=Income; trt= Travel time; hf=Health facility; loc= Location; hins=Health insurance; ε = error term capture all the factors that may influence the demand for insurance but have been omitted. In Table 3.2, summary of the definitions, measurement and a'priori signs of the variables are provided.

Table 3.2 Definition, measurement and a'priori signs of variables

Variables	Definition of the variable	A priori sign
Dependent variable	This is measured by four binary variables; Acute illness adults and children, and Chronic illness adults and children. This captures the form of treatment to illness received by respondents. All four variables are coded 1= for a formal treatment to ailment and 0=for an informal treatment to an ailment. Formal means of treating ailment requires the use of hospitals, clinics, and polyclinics while informal means is through the use of traditional methods, treatment at home, and religious grounds.	Indeterminate
Sex	A dummy variable that captures the sex of the respondent. It was coded 1=Male and 0=Female.	Indeterminate
Age	A continuous variable that captures the age of the respondent. The squared of the age was included to assess the possibility of quasi-linear between the age and the use of formal illness medium.	Positive
Level of education	A dummy variable that captures the educational level of the respondents. It was put into two categories and was coded 1=formal education and 0 = Non-formal education.	Indeterminate

Variables	Definition of the variable	A priori sign
Income	A continuous variable that captures the income level of all individuals.	Positive
Travel time	A dummy variable that captures travel time respondents use in assessing formal and informal services. It was put into 2 categories with code 1=30 minutes and more, and 0=30 minutes and less.	Indeterminate
Health facility	A dummy variable that captures the nearest health facility attended by respondents. This was coded 1= 5km and more, and 0=less than 5km.	Indeterminate
Location	This is a dummy variable that captures the respondents' location. It was coded as 1= Urban; 0=Rural.	Indeterminate
Health insurance	This is a binary variable capturing whether the respondents have registered for health insurance with codes 1=Yes and 0=No.	Indeterminate

Source: Author's construct (2020)

Qualitative data was also used by providing quotes in some instances to back the quantitative data.

Objective three looked at the barriers associated with the choice of healthcare services. The analysis was done quantitatively by running frequencies, and crosstabs on the barriers selected by the respondents looking at the high and low concentration of health facility differentials and the rural urban dichotomy. Also, the barriers that explain choice were presented in tables according to the results. Issues that came up from the interviews related to barriers were also incorporated in the analysis.

3.4 Summary

This chapter was in two parts; a discussion of the study area and the methodology. With respect to the study area the Sunyani Municipality was discussed in relation to its origin, location and size; the demographic characteristics and social services within the municipality. With respect to the methodology the research design and strategy, the sources of data, sampling techniques and the data analysis were discussed.

CHAPTER FOUR: TYPES OF HEALTHCARE SERVICES AND FACTORS INFLUENCING CHOICE OF HEALTHCARE

4.1 Introduction

This chapter provides the results of the study. After this introduction results are presented basically on the demographic characteristics of respondents, mode of healthcare financing among respondents and household morbidity. Results are also presented on choice of healthcare by different socio-economic groups, the factors that influence choice of healthcare services and the barriers to the choice of healthcare, representing the study's objectives. The chapter ends with a summary of key issues discussed.

4.2 Demographic Characteristics of respondents

Table 4.1 shows the distribution of respondents according to their socio-demographic characteristics. These include gender, age, religion, marital status and level of education. Others are household size, occupation and income. Majority of the respondents in all the study communities were females with the exception of Atronie where majority were males (51.6%). In total, about 60% of the 430 respondents were females.

Majority of the respondents surveyed were 30 years and above whiles those less than 20 years formed the least category of respondents for the study. The average age of the respondents sampled is 40 years.

There were more Christians than any other religious group from the study sample with the Christians forming as much as 88% of the 430 respondents. Also, Muslims were about 11% whiles the remaining belonged to the African Traditional Religion (ATR). It is only in Atronie and Kotokrom where there were respondents who belonged to the ATR.

Table 4.1 Demographic characteristics of respondents

	Sunyani		Atronie		Nwawansua		Kotokrom		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Gender										
Male	143	40.2	16	51.6	4	22.2	8	32.0	171	39.8
Female	213	59.8	15	48.4	14	77.8	17	68.0	259	60.2
Age										
Below 20	0	0	0	0	1	5.6	1	4.0	2	0.5
20 – 30	86	24.2	6	19.4	2	11.1	8	32.0	102	23.7
31 – 40	137	38.5	9	29.0	5	27.8	7	28.0	158	36.7
41 – 50	84	23.6	5	16.1	8	44.4	4	16.0	101	23.5
51 – 60	35	9.8	5	16.1	0	0.0	2	8.0	42	9.8
Above 60	14	3.9	6	19.4	2	11.1	3	12.0	25	5.8
Religion										
Christian	316	88.8	25	80.6	18	100.0	19	76.0	378	87.9
Muslim	40	11.2	5	16.1	0	0.0	5	20.0	50	11.6
Traditionalist	0	0.00	1	3.2	0	0.0	1	4.0	2	0.5
Marital status										
Single	80	22.5	3	9.7	4	22.2	6	24.0	93	21.6
Married	214	60.1	20	64.5	11	61.1	19	76.0	264	61.4
Divorced	30	8.4	2	6.5	0	0.0	0	0.0	32	7.4
Widowed	26	7.3	5	16.1	3	16.7	0	0.0	34	7.9
Cohabiting	0	0.00	1	3.2	0	0.0	0	0.0	1	0.2
Separated	6	1.7	0	0.00	0	0.0	0	0.0	6	1.4
Level of education										
No formal education	6	1.7	9	29.0	7	38.9	2	8.0	24	5.6
Primary	11	3.1	4	12.9	2	11.1	0	0.00	17	4.0
JHS/JSS/middle school	96	27.0	7	22.6	4	22.2	3	12.0	110	25.6
Vocational/technical	10	2.8	1	3.2	0	0.0	1	4.0	12	2.8
SSS/SHS	34	9.6	0	0.0	3	16.7	3	12.0	40	9.3
Tertiary	199	55.9	10	32.3	2	11.1	16	64.0	227	52.8
Household size										
Below 3	22	6.2	0	0.00	1	5.6	1	4.0	24	5.6
3-6	181	50.8	18	58.1	9	50.0	13	52.0	221	51.4
7-10	151	42.4	9	29.0	6	33.3	10	40.0	176	40.9
Above 10	2	0.6	4	12.9	2	11.1	1	4.0	9	2.1
Primary occupation										
Farmers	10	3.0	14	46.7	9	56.3	1	5.3	34	8.4
Drivers	6	1.8	1	3.3	2	12.5	1	5.3	10	2.5
Civil servants	189	55.9	8	26.7	1	6.2	11	57.9	209	51.9
Artisans	23	6.8	1	3.3	1	6.2	0	0	25	6.2
Traders	96	28.4	6	20.0	3	18.8	6	31.6	111	27.5
Others	14	4.1	0	0.00	0	0.00	0	0.0	14	3.5
Income										
Below 500	120	34.9	17	65.4	13	81.2	8	42.1	158	39.0
500 – 1000	98	28.5	4	15.4	1	6.2	3	15.8	106	26.2
1001 – 1500	46	13.4	2	7.7	1	6.2	2	10.5	51	12.6
1501 – 2000	67	19.5	3	11.5	1	6.2	6	31.6	77	19.0
Above 2000	13	3.8	0	3.0	0	0.0	0	0.0	13	3.2

Source: Fieldwork, 2019.

Also, about 60% of the respondents were married whiles about 21% were single. The least group of respondents were cohabiting. It is only in Sunyani that there were respondents (1.7%) who indicated that they are separated.

More than 90% of the 430 respondents selected have received some form of formal education. The largest group of respondents have tertiary education (53%) followed by those with JHS/JSS/Middle school education (25%). Majority of the respondents from the urban communities have had tertiary (54%) education whiles with those in the rural communities 42% have obtained tertiary education.

Majority of the respondents (51%) belong to a household with a size of 3-6 people followed by those who belong to a household with a size of 7-10 who made up 41%. The least group of respondents belonged to a household with more than 10 people.

Concerning occupation, majority of the respondents sampled were civil servants (52%) followed by traders who formed 27 per cent. The least category of respondents belonged to other occupation such as pensioners, students, unemployed, among others. It can be observed however that in Sunyani and Kotokrom – the communities with higher concentration of health facilities, majority of the respondents were civil servants.

Only a few of the respondents (3.2%) had their average monthly income to be above GHC 2000. However, majority of the respondents had their income above GHC 500.00. Atronie and Nwawansua had majority of the respondents earning below GHC 500. The average income of all the respondents is GHC 955.00.

4.3 Mode of healthcare financing

The study looked at the healthcare financing options adopted by the respondents and their household members. The results, as shown in Table 4.2, indicate that majority of the respondents totalling 275 and representing 64.3% used NHIS and out of pocket as their primary mode of healthcare financing. The next most used healthcare financing mode is NHIS only, which accounted for about 24% of the respondents. The least used healthcare financing option is private health insurance (1.6%). It should however be acknowledged that it is only in Sunyani where some respondents (2.8%) used private health insurance.

Table 4.2 Mode of healthcare financing

	Sunyani	Atronie	Nwawasua	Kotokrom	Total
NHIS Only	100 (28.2%)	5 (16.1%)	6 (33.3%)	6 (24.0%)	117 (27.3%)
Private Insurance	10 (2.8%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	10 (2.3%)
Out of Pocket	21 (5.9%)	7 (22.6%)	2 (11.1%)	4 (16.0%)	34 (7.9%)
NHIS and Out of Pocket	223 (63.0%)	19 (61.3%)	10 (55.6%)	15 (60.0%)	267 (62.4%)

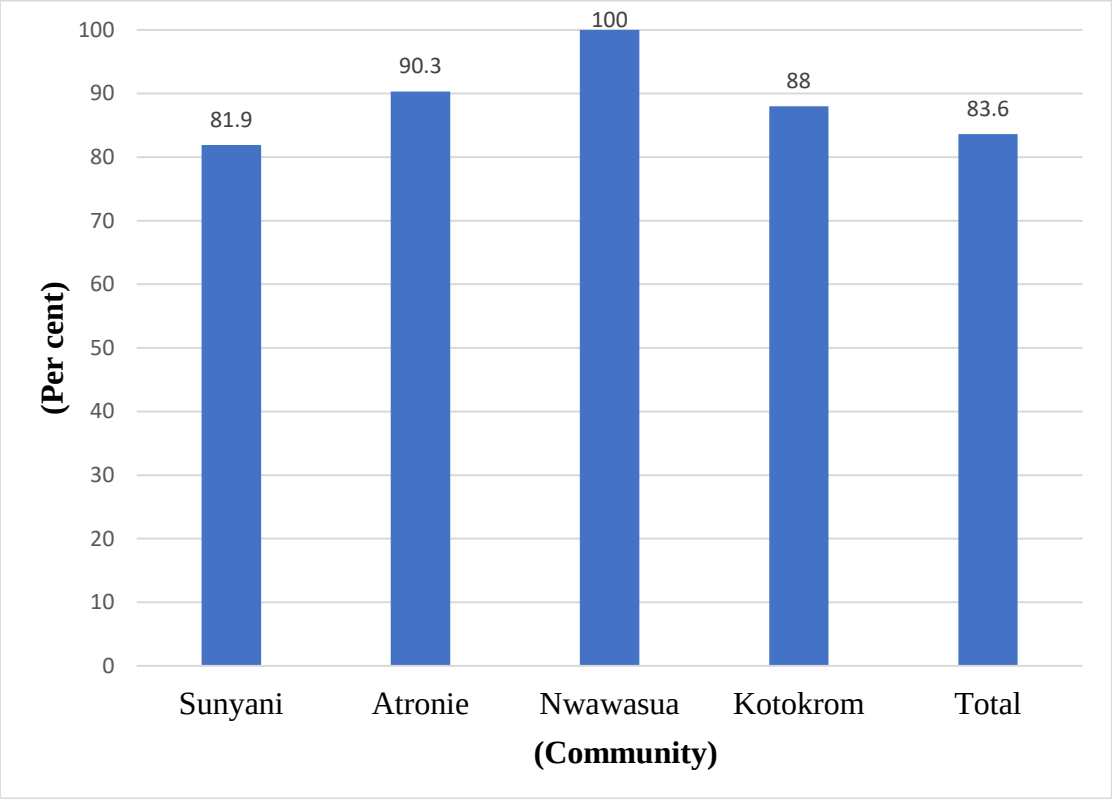
Source: Fieldwork, 2019

4.4 Household morbidity

The results of the study showed that 83.6% of the respondents have experienced morbidity in their household over the last 12 months. In Nwawansua, all the respondents indicated that there has

been morbidity in their households (Figure 4.1), a situation that did not happen in the other communities where morbidity was recorded over the past 12 months.

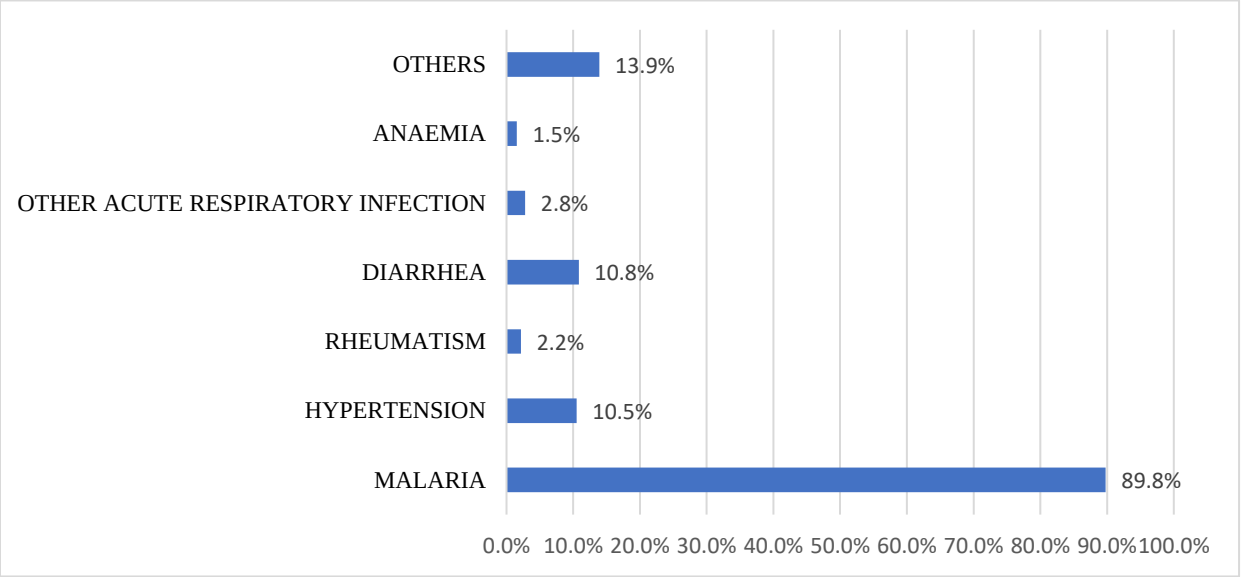
Figure 4.1 Household Morbidity Over the Past 12 Months



Source: Fieldwork, 2019.

The study went further to investigate the diseases respondents mostly suffer from. The results indicate that 88.1% of the respondents mostly suffered from malaria. This is followed by those who suffered other diseases such as body pains, eye infections, dizziness, epilepsy, among others. About 10% each of the respondents indicated that they suffered from Diarrhoea and Hypertension over the past 12 months respectively (Figure 4.2). This was confirmed by a health administrator in Nwawasua who said that malaria is the most recorded disease on a daily basis in the health facility he oversees. She said that in a day if there are 30 recorded cases, 20 of them will be malaria.

Figure 4.2 Diseases mostly suffered in households



Source: Fieldwork, 2019

4.5 Socio-economic background and choice of healthcare services in the Sunyani Municipality

This section of the study looks at the types of healthcare services used by the respondents. Before looking at the types of healthcare services used, the study explores the healthcare services available in all the study communities. During the community visits, it was observed that all the communities had pharmacies or drug stores available with a total of nine pharmacies/drug stores. Only Sunyani had a hospital, but apart from the hospital, there are clinics, maternity homes and optical centres. In all, 10 health facilities were counted in Sunyani which includes four hospitals, five clinics/maternity homes and one optical centre. Atronie also had a clinic and a health centre, although the clinic is privately owned. Kotokrom had a health centre. Nwawansua had a health centre only. The following sections consider the type of health care services used in times of chronic and acute illnesses. In line with the first objective of the study which is to examine the

types of healthcare services used by the various socio-economic groups in the municipality, the results are presented by considering the choices made and the socio-economic background of the respondents. This has been organized in terms of the choices by adults and choices made for children.

4.5.1 Adults' choice of healthcare services

The results as shown in Table 4.3 indicate that majority of the respondents (54%) prefer to visit the pharmacy/drug store when they suffer from acute illness. This is followed by 20 % of the 430 respondents who indicate that they prefer to visit the hospital when they suffer acute illnesses. One person (0.2%) uses traditional medicine in times of acute illness.

Looking at gender and healthcare services used in times of acute illness the results indicate that majority of both male (58%) and female (52%) respondents prefer to visit the pharmacy/drug store when they suffer from acute illnesses. However, a higher proportion of males preferred pharmacy compared to females. Although one female respondent indicated that she uses traditional medicine to treat acute illness none of the male respondents alluded to the use of traditional medicine in treating acute diseases. The situation was however different when it comes to healthcare choices in treating chronic diseases and gender. The study results show that majority of both the male and female respondents preferred using the hospital in treating chronic ailments. The number of people who preferred hospital in treating chronic diseases is more than those who preferred visiting the pharmacy in treating acute illness. It was also observed that although none of the respondents, both males and females alluded to visiting spiritualists in treating acute diseases, one male and three females indicated that they consult spiritualists in treating chronic diseases in their households. More females consulted spiritualists compared to males.

Table 4.3 Healthcare services used by adults belonging to various socio-economic groups in the Sunyani Municipality

Acute illnesses (%)							
	Self-medication	Pharmacy/ drug store	Health Centre	Clinic/CHPS	Hospital	Traditional/ herbal med.	Spiritualist
Gender							
Male	19(11.1)	99(57.9)	0(0.0)	20(11.7)	33(19.3)	0(0.0)	0(0.0)
Female	40(15.6)	133(51.8)	0(0.0)	29(11.3)	54(21.0)	1(0.4)	0(0.0)
Age							
<20	0(0.0)	1(50.0)	0(0.0)	1(50.0)	0(0.0)	0(0.0)	0(0.0)
20-30	8(8.0)	47(47.0)	0(0.0)	13(13.0)	32(32.0)	0(0.0)	0(0.0)
31-40	28(17.7)	84(53.2)	0(0.0)	14(8.9)	32(20.3)	0(0.0)	0(0.0)
41-50	9(8.9)	67(66.3)	0(0.0)	11(10.9)	13(12.9)	1(1.0)	0(0.0)
51-60	7(16.7)	24(57.1)	0(0.0)	6(14.3)	5(11.9)	0(0.0)	0(0.0)
>60	7(28.0)	9(36.0)	0(0.0)	4(16.0)	5(20.0)	0(0.0)	0(0.0)
Religion							
Christians	50(13.3)	208(55.3)	0(0.0)	35(9.3)	82(21.8)	1(0.3)	0(0.0)
Muslims	8(16.0)	24(48.0)	0(0.0)	13(26.0)	5(10.0)	0(0.0)	0(0.0)
ATR	1(50.0)	0(0.0)	0(0.0)	1(50.0)	0(0.0)	0(0.0)	0(0.0)
Marital status							
Single	24(26.4)	25(27.5)	0(0.0)	11(12.1)	31(34.1)	0(0.0)	0(0.0)
Married	27(10.2)	148(56.1)	0(0.0)	37(14.0)	52(19.7)	0(0.0)	0(0.0)
Divorced	0(0.0)	32(100.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Widowed	8(23.5)	20(58.8)	0(0.0)	1(2.9)	4(11.8)	1(2.9)	0(0.0)
Cohabiting	0(0.0)	1(100.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Separated	0(0.0)	6(100.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Level of education							
No Education	6(25.0)	11(45.8)	0(0.0)	5(20.8)	2(8.3)	0(0.0)	0(0.0)
Primary	2(11.8)	14(82.4)	0(0.0)	0(0.0)	0(0.0)	1(5.9)	0(0.0)
JHS/JSS/Middle	2(1.8)	79(71.8)	0(0.0)	13(11.8)	16(14.5)	0(0.0)	0(0.0)
Vocational/Tec.	0(0.0)	11(91.7)	0(0.0)	1(8.3)	0(0.0)	0(0.0)	0(0.0)
SSS/SHS	7(17.5)	24(60.0)	0(0.0)	1(2.5)	8(20.0)	0(0.0)	0(0.0)
Tertiary	42(18.7)	93(41.3)	0(0.0)	29(12.9)	61(27.1)	0(0.0)	0(0.0)
Chi-square value (X^2) = 84.722			**df = 20**		**P value (5% level of significance) = 0.000**		
Household size							
Below 3	7(29.2)	4(16.7)	0(0.0)	0(0.0)	13(54.2)	0(0.0)	0(0.0)
3-6	43(19.5)	96(43.4)	0(0.0)	33(14.9)	48(21.7)	1(0.5)	0(0.0)
7-10	9(5.2)	129(74.1)	0(0.0)	13(7.5)	23(13.2)	0(0.0)	0(0.0)
> 10	0(0.0)	3(33.3)	0(0.0)	3(33.3)	3(33.3)	0(0.0)	0(0.0)
Income (GH)							
< 500	22(14.1)	115(73.7)	0(0.0)	8(5.1)	11(7.1)	0(0.0)	0(0.0)
501-1000	8(7.5)	41(38.7)	0(0.0)	24(22.6)	33(31.1)	0(0.0)	0(0.0)
1001-1500	14(27.5)	24(47.1)	0(0.0)	1(2.0)	12(23.5)	0(0.0)	0(0.0)
1501-2000	14(18.2)	29(37.7)	0(0.0)	11(14.3)	23(29.9)	0(0.0)	0(0.0)
>2000	1(7.7)	8(61.5)	0(0.0)	0(0.0)	4(30.8)	0(0.0)	0(0.0)
Settlement							
Rural	10(23.3)	14(32.6)	0(0.0)	13(30.2)	6(14)	0(0.0)	0(0.0)
Urban	49(12.7)	218(56.6)	0(0.0)	36(9.4)	81(21)	1(0.3)	0(0.0)
Total	**59(13.8)**	**232(54.2)**	**0(0.0)**	**49(11.4)**	**87(20.3)**	**1(0.2)**	**0(0.0)**
Chronic illnesses							
	Self-medication	Pharmacy/ drug store	Health centre	Clinic/CHPS	Hospital	Traditional/ herbal med.	Spiritualist

Gender							
Male	3(1.8)	1(0.6)	0(0.0)	8(4.7)	146(85.4)	12(7.0)	1(0.6)
Female	2(0.8)	0(0.0)	0(0.0)	13(5.1)	203(79)	35(13.6)	4(1.6)
Age							
<20	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(50.0)	1(50.0)	0(0.0)
20-30	3(3.0)	0(0.0)	0(0.0)	1(1.0)	83(83.0)	13(13)	0(0.0)
31-40	2(1.3)	0(0.0)	0(0.0)	13(8.2)	120(75.9)	23(14.6)	0(0.0)
41-50	0(0.0)	1(1.0)	0(0.0)	5(5.0)	84(83.2)	7(6.9)	4(4.0)
51-60	0(0.0)	0(0.0)	0(0.0)	0(0.0)	41(97.6)	1(2.4)	0(0.0)
>60	0(0.0)	0(0.0)	0(0.0)	2(8.0)	20(80.0)	2(8.0)	1(4.0)
Religion							
Christians	5(1.3)	1(0.3)	0(0.0)	21(5.6)	299(79.5)	45(12.0)	5(1.3)
Muslims	0(0.0)	0(0.0)	0(0.0)	0(0.0)	48(96.0)	2(4.0)	0(0.0)
ATR	0(0.0)	0(0.0)	0(0.0)	0(0.0)	2(100.0)	0(0.0)	0(0.0)
Marital status							
Single	3(3.3)	1(1.1)	0(0.0)	6(6.6)	78(85.7)	3(3.3)	0(0.0)
Married	2(0.8)	0(0.0)	0(0.0)	10(3.8)	218(82.6)	29(11.0)	5(1.9)
Divorced	0(0.0)	0(0.0)	0(0.0)	4(12.5)	23(71.9)	5(15.6)	0(0.0)
Widowed	0(0.0)	0(0.0)	0(0.0)	1(2.9)	23(67.6)	10(29.4)	0(0.0)
Cohabiting	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(100.0)	0(0.0)	0(0.0)
Separated	0(0.0)	0(0.0)	0(0.0)	0(0.0)	6(100.0)	0(0.0)	0(0.0)
Level of education							
No Education	0(0.0)	0(0.0)	0(0.0)	1(4.2)	19(79.2)	3(12.5)	1(4.2)
Primary	0(0.0)	1(5.9)	0(0.0)	2(11.8)	13(76.5)	1(5.9)	0(0.0)
JHS/JSS/Middle	2(1.8)	0(0.0)	0(0.0)	3(2.7)	86(78.2)	19(17.3)	0(0.0)
Vocational/Tec.	0(0.0)	0(0.0)	0(0.0)	0(0.0)	12(100)	0(0)	0(0.0)
SSS/SHS	0(0.0)	0(0.0)	0(0.0)	5(12.5)	31(77.5)	2(5.0)	2(5.0)
Tertiary	3(1.3)	0(0.0)	0(0.0)	10(4.4)	188(83.6)	22(9.8)	2(0.9)
Chi-square value (X^2) = 50.7222 df = 25 P Value (at 5% level of significance) = 0.002							
Household size							
Below 3	0(0.0)	0(0.0)	0(0.0)	0(0.0)	24(100)	0(0.0)	0(0.0)
3-6	5(2.3)	0(0.0)	0(0.0)	16(7.2)	187(84.6)	10(4.5)	3(1.4)
7-10	0(0.0)	1(0.6)	0(0.0)	5(2.9)	133(76.4)	35(20.1)	0(0.0)
> 10	0(0.0)	0(0.0)	0(0.0)	0(0.0)	5(55.6)	2(22.2)	2(22.2)
Income (GH)							
< 500	2(1.3)	1(0.6)	0(0.0)	9(5.8)	119(76.3)	22(14.1)	3(1.9)
501-1000	3(2.8)	0(0.0)	0(0.0)	0(0.0)	95(89.6)	6(5.7)	2(1.9)
1001-1500	0(0.0)	0(0.0)	0(0.0)	4(7.8)	36(70.6)	11(21.6)	0(0.0)
1501-2000	0(0.0)	0(0.0)	0(0.0)	5(6.5)	66(85.7)	6(7.8)	0(0.0)
>2000	0(0.0)	0(0.0)	0(0.0)	0(0.0)	12(92.3)	1(7.7)	0(0.0)
Settlement							
Rural	0(0.0)	1(2.3)	0(0.0)	4(9.3)	30(69.8)	7(16.3)	1(2.3)
Urban	5(1.3)	0(0.0)	0(0.0)	17(4.4)	319(82.9)	40(10.4)	4(1.0)
Total	**5(1.2)**	**1(0.2)**	**0(0)**	**21(4.9)**	**349(81.5)**	**47(11.0)**	**5(1.2)**

Source: Fieldwork, 2019.

Half of the respondents who are less than 20 years old preferred pharmacy when they suffer from acute illness whiles less than half of those in the 20-30 years preferred to use the pharmacy when

they suffer acute illness. The results of the study have shown that majority of the respondents above age 30 preferred going to the pharmacy for treatment of acute diseases compared to those below 30 years of age. Also, none of the respondents who are below the age of 20 preferred to visit the hospital when they suffer from acute illness. However, with chronic diseases majority of all the age groups with the exception of those below age 20 visited the hospital to treat chronic diseases and the remaining half indicated that they use traditional medicine. Those who are above 60 had the highest percentage of respondents (80%) indicating that they visit the hospital to treat chronic diseases.

Majority of Christians prefer to visit the pharmacy when they experience acute illness. However, in the other religious groups the case is different. With Muslims, 48 % indicated that they visit the pharmacy when they experience acute illness whiles half of the respondents belonging to the ATR prefer self-medication and the remaining half use the clinic/CHPS in treating acute illness. With chronic diseases all the respondents belonging to ATR indicated that they visit the hospital when they experience chronic illness. More Christians preferred to use traditional medicine to treat chronic illness than any other religious group. Also, only Christians had 1.3% of respondents indicating that they consult spiritualists in dealing with chronic diseases. None of the other groups had respondents who indicated that they consult spiritualists in dealing with chronic diseases.

When it comes to marital status and the type of healthcare services used in times of acute illness those who are single had different preference compared with all the other marital status groups. The single had minority of respondents who visited the pharmacy when they suffer from acute illnesses. All the other marital status groups had majority of respondents preferring pharmacy when they suffer acute diseases. With chronic diseases the choices were skewed towards one direction. All the categories had majority of respondents visiting the hospitals with 100% of those

cohabiting and separated visiting the hospital for chronic disease treatment. A significant percentage of the single, married, divorced and widowed preferred the use of traditional medicine in treating chronic diseases.

When it comes to level of education, those who have had no formal education and those who have attained tertiary education had less than 50 % of their respondents indicating that they use the pharmacy when they suffer from acute illness. Majority of all the respondents who belonged to the other categories apart from no formal education and tertiary indicated that they visit the pharmacy when they suffer from acute illness. The study revealed that there is a significant relationship between level of education and choice of healthcare in times of acute illness (chi square value (X^2) = 84.722, df = 20, p value = 0.000). The study therefore rejects the null hypothesis which states that there is no significant relationship between level of education and choice of healthcare services when it comes to acute illness. Concerning chronic illness, the study also revealed that there is a significant relationship between level of education and choice of healthcare services when respondents suffer from chronic diseases (Chi-square value (X^2) = 50.7222, df = 25, P Value at 5% level of significance = 0.002). The therefore fails to accept the null hypothesis which states that there is no significant relationship between level of education and choice of healthcare service in times of chronic illness. With respondents who have JHS education 17% indicated that they use traditional medicine to treat chronic illness; the highest percentage among those who use traditional medicine. A few of the respondents who have no formal education, SHS and tertiary education consult spiritualists in treating chronic illness.

In terms of household size, it was observed that the respondents who belong to a household size of less than three had majority of them indicating that they prefer to visit the hospital when they suffer from acute diseases. Majority of those who belong to a household size of 7-10 indicated that

they prefer to visit the hospital when they suffer from acute illness. Three each of the respondents (33%) who belong to a household with more than 10 people preferred to visit the pharmacy, clinic and hospital respectively. Also, with those who belong to a household with less than 3 members 7 of them representing 29% indicated that they use self-medication when they experience acute illness. This is the highest in terms of percentage among the various household sizes. The situation is however different when it comes to acute illness. For instance, none of the respondents who belong to a household with less than 3 members alluded to using self-medication to cure chronic diseases. All of them indicated that they prefer to go to the hospital. However, more people (20%) belonging to a household with a population of more than 6 people preferred to use traditional medicine when they face chronic illness. This is not the case when they face acute illness.

With level of income the study results showed that majority of those who earned the highest income and those who earned the lowest income preferred to visit the pharmacy when they fall sick of acute illness. However, more of those who earned from GHC 501-1000 preferred to visit the clinic/CHPS compared to any other income group. Those who are in the GHC501-1000 category had the highest number of respondents who preferred to visit the hospital when they suffer from acute illness. But when it comes to chronic diseases, the respondents with the highest incomes had the highest percentage of those who visit the hospital. It is also observed that those with the least income had the highest number of respondents using traditional medicine to treat chronic illness.

Respondents indicated through the interviews and FGDs that under normal circumstances they would not go to formal healthcare facilities such as hospitals, clinics or health centres for mild or acute illnesses but would rather visit a pharmacy or drug store for healthcare. However, when they realize that the sickness is becoming serious, they would then resort to formal healthcare services.

This assertion was supported by the health administrators who indicated that sometimes patients delay in reporting medical conditions to the formal health facilities creating problems and complications in the health of the patients which may even lead to death. A health personnel at Nwawasua CHPS had this to say:

Sometimes when people are sick instead of them to come to the hospital, they would rather go to the drug store to go and buy medicine. They only come to the hospital if they realize that the sickness has become serious which sometimes makes the healing process difficult or even creating other conditions. [interview with a health administrator in Nwawasua CHPS on March 25, 2019].

The last demographic variable that was considered is the type of settlement (Rural or urban). It can be observed that majority of the respondents who reside in urban centres (56%) prefer to visit the pharmacy when they suffer from acute illness whiles about 32 %of the respondents in the rural areas prefer to visit the pharmacy when they suffer from acute illness. With chronic diseases, the results indicate that both rural and urban areas had majority of respondents indicating that they visit the hospital when they experience chronic diseases. However, the percentage of urban respondents who visit the hospital when they experience chronic diseases is higher (83%) than respondents from the rural areas (70%).

4.5.2 Choice of healthcare services for children

The study also considered the healthcare choices for children in the respondents' households. In Table 4.4 shows the results in terms of the healthcare choices made for children in the respondents' households are displayed. It is observed that there is not much difference in terms of where children are sent to for treatment when they suffer both acute and chronic diseases. In both instances (acute

and chronic cases) majority of the respondents prefer to send their children to the hospital. However, more of the respondents (82%) sent their children with chronic diseases to the hospital compared to when the children suffer acute illness (52%). The second healthcare facility respondents preferred for to take their children suffering from acute illness is the clinic followed by pharmacy. None of the respondents indicated that they took their children to the spiritualist when they suffer from acute diseases. However, with chronic illness, 9 of the respondents representing 2.6% indicated that they send their children for spiritual healing when the children suffer from chronic diseases whiles 26 of them representing 7.4% indicated that they use traditional medicine for chronic diseases.

Table 4.4 Healthcare services used by children belonging to various socio-economic groups in the Sunyani Municipality

	Acute (%)						
	Self-medication	Pharmacy/drug store	Health Centre	Clinic/CHPS	Hospital	Traditional/ herbal med.	Spiritualist
Gender							
Male	6(4.3)	20(14.4)	0(0.0)	31(22.3)	82(59.0)	0(0.0)	0(0.0)
Female	7(3.3)	41(19.3)	0(0.0)	61(28.8)	102(48.1)	1(0.5)	0(0.0)
Age							
<20	0(0.0)	1(50.0)	0(0.0)	1(50.0)	0(0.0)	0(0.0)	0(0.0)
20-30	1(1.2)	19(23.5)	0(0.0)	16(19.8)	45(55.6)	0(0.0)	0(0.0)
31-40	3(2.3)	18(14.0)	0(0.0)	24(18.6)	84(65.1)	0(0.0)	0(0.0)
41-50	7(7.5)	19(20.4)	0(0.0)	36(38.7)	30(32.3)	1(1.1)	0(0.0)
51-60	1(3.1)	2(6.2)	0(0.0)	10(31.2)	19(59.4)	0(0.0)	0(0.0)
>60	1(7.1)	2(14.3)	0(0.0)	5(35.7)	6(42.9)	0(0.0)	0(0.0)
Religion							
Christians	10(3.2)	42(13.5)	0(0.0)	79(25.4)	179(57.6)	1(0.3)	0(0.0)
Muslims	2(5.3)	19(50.0)	0(0.0)	12(31.6)	5(13.2)	0(0.0)	0(0.0)
ATR	1(50.0)	0(0.0)	0(0.0)	1(50.0)	0(0.0)	0(0.0)	0(0.0)
Marital status							
Single	1(1.7)	9(15.5)	0(0.0)	11(19.0)	37(63.8)	0(0.0)	0(0.0)
Married	10(4.3)	36(15.6)	0(0.0)	71(30.7)	114(49.4)	0(0.0)	0(0.0)
Divorced	0(0.0)	8(25.0)	0(0.0)	1(3.1)	23(71.9)	0(0.0)	0(0.0)
Widowed	2(8.7)	2(8.7)	0(0.0)	8(34.8)	10(43.5)	1(4.3)	0(0.0)
Cohabiting	0(0.0)	0(0.0)	0(0.0)	1(100.0)	0(0.0)	0(0.0)	0(0.0)
Separated	0(0.0)	6(100.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	0(0.0)
Level of education							
No formal education	4(22.2)	4(22.2)	0(0.0)	3(16.7)	7(38.9)	0(0.0)	0(0.0)
Primary	2(15.4)	1(7.7)	0(0.0)	1(7.7)	8(61.5)	1(7.7)	0(0.0)
JHS/JSS/Middle Sch.	1(1.1)	29(30.5)	0(0.0)	21(22.1)	44(46.3)	0(0.0)	0(0.0)

Vocational/Technical	0(0.0)	1(8.3)	0(0.0)	1(8.3)	10(83.3)	0(0.0)	0(0.0)
SSS/SHS	2(5.1)	2(5.1)	0(0.0)	13(33.3)	22(56.4)	0(0.0)	0(0.0)
Tertiary	4(2.3)	24(13.8)	0(0.0)	53(30.5)	93(53.4)	0(0.0)	0(0.0)
Chi-square value (X^2) = 76.663			**df = 20**			**P value (at 5% level of significance) = 0.001**	
Household size							
Below 3	0(0.0)	0(0.0)	0(0.0)	0(0.0)	4(100.0)	0(0.0)	0(0.0)
3-6	9(5.2)	28(16.1)	0(0.0)	44(25.3)	92(52.9)	1(0.6)	0(0.0)
7-10	4(2.4)	30(18.2)	0(0.0)	44(26.7)	87(52.7)	0(0.0)	0(0.0)
> 10	0(0.0)	3(37.5)	0(0.0)	4(50.0)	1(12.5)	0(0.0)	0(0.0)
Income (GH)							
< 500	11(7.9)	26(18.7)	0(0.0)	32(23.0)	70(50.4)	0(0.0)	0(0.0)
501-1000	0(0.0)	9(10.5)	0(0.0)	20(23.3)	57(66.3)	0(0.0)	0(0.0)
1001-1500	0(0.0)	0(0.0)	0(0.0)	20(47.6)	22(52.4)	0(0.0)	0(0.0)
1501-2000	2(3.6)	14(25.0)	0(0.0)	18(32.1)	22(39.3)	0(0.0)	0(0.0)
>2000	0(0.0)	0(0.0)	0(0.0)	0(0.0)	13(100.0)	0(0.0)	0(0.0)
Settlement							
Rural	8(22.2)	7(19.4)	0(0.0)	15(41.7)	6(16.7)	0(0.0)	0(0.0)
Urban	5(1.6)	54(17.1)	0(0.0)	77(24.4)	178(56.5)	1(0.3)	0(0.0)
Total	**13(3.7)**	**61(17.4)**	**0(0.0)**	**92(26.2)**	**184(52.4)**	**1(0.3)**	**0(0.0)**
Chronic							
	Self-medication	Pharmacy/drug store	Health Centre	Clinic/CHPS	Hospital	Traditional/ herbal med.	Spiritualist
Gender							
Male	0(0.0)	1(0.7)	0(0.0)	4(2.9)	121(87.1)	12(8.6)	1(0.7)
Female	2(0.9)	0(0.0)	1(0.5)	17(8.0)	170(80.2)	14(6.6)	8(3.8)
Age							
<20	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(50.0)	1(50.0)	0(0.0)
20-30	0(0.0)	0(0.0)	0(0.0)	1(1.2)	75(92.6)	5(6.2)	0(0.0)
31-40	2(1.6)	0(0.0)	1(0.8)	11(8.5)	107(82.9)	8(6.2)	0(0.0)
41-50	0(0.0)	1(1.1)	0(0.0)	9(9.7)	68(73.1)	7(7.5)	8(8.6)
51-60	0(0.0)	0(0.0)	0(0.0)	0(0.0)	27(84.4)	4(12.5)	1(3.1)
>60	0(0.0)	0(0.0)	0(0.0)	0(0.0)	13(92.9)	1(7.1)	0(0.0)
Religion							
Christians	2(0.6)	1(0.3)	1(0.3)	21(6.8)	254(81.7)	23(7.4)	9(2.9)
Muslims	0(0.0)	0(0.0)	0(0.0)	0(0.0)	35(92.1)	3(7.9)	0(0.0)
ATR	0(0.0)	0(0.0)	0(0.0)	0(0.0)	2(100.0)	0(0.0)	0(0.0)
Marital status							
Single	0(0.0)	1(1.7)	0(0.0)	4(6.9)	52(89.7)	1(1.7)	0(0.0)
Married	2(0.9)	0(0.0)	1(0.4)	8(3.5)	193(83.5)	18(7.8)	9(3.9)
Divorced	0(0.0)	0(0.0)	0(0.0)	4(12.5)	24(75.0)	4(12.5)	0(0.0)
Widowed	0(0.0)	0(0.0)	0(0.0)	5(21.7)	15(65.2)	3(13.0)	0(0.0)
Cohabiting	0(0.0)	0(0.0)	0(0.0)	0(0.0)	1(100.0)	0(0.0)	0(0.0)
Separated	0(0.0)	0(0.0)	0(0.0)	0(0.0)	6(100.0)	0(0.0)	0(0.0)
Level of education							
No Education	0(0.0)	0(0.0)	0(0.0)	5(27.8)	10(55.6)	3(16.7)	0(0.0)
Primary	0(0.0)	1(7.7)	0(0.0)	2(15.4)	10(76.9)	0(0.0)	0(0.0)
JHS/JSS/Middle		0(0.0)	0(0.0)	1(1.1)	79(83.2)	8(8.4)	5(5.3)
Vocational/Technical	0(0.0)	0(0.0)	0(0.0)	0(0.0)	12(100.)	0(0.0)	0(0.0)
SSS/SHS	0(0.0)	0(0.0)	0(0.0)	5(12.8)	30(76.9)	2(5.1)	2(5.1)
Tertiary	0(0.0)	0(0.0)	1(0.6)	8(4.6)	150(86.2)	13(7.5)	2(1.1)
Chi-square value (X^2) = 69.804			**df = 30**			**P value (at 5% level of significance) = 0.001**	
Household size							
Below 3	0(0.0)	0(0.0)	0(0.0)	0(0.0)	4(100.0)	0(0.0)	0(0.0)
3-6	2(1.1)	0(0.0)	0(0.0)	13(7.5)	145(83.3)	12(6.9)	2(1.1)

7-10	0(0.0)	1(0.6)	1(0.6)	8(4.8)	139(84.2)	11(6.7)	5(3.0)
> 10	0(0.0)	0(0.0)	0(0.0)	0(0.0)	3(37.5)	3(37.5)	2(25.0)
Income (GHC)							
< 500	2(1.4)	1(0.7)	0(0.0)	13(9.4)	110(79.1)	6(4.3)	7(5.0)
501-1000	0(0.0)	0(0.0)	0(0.0)	0(0.0)	74(86.0)	10(11.6)	2(2.3)
1001-1500	0(0.0)	0(0.0)	0(0.0)	2(4.8)	35(83.3)	5(11.9)	0(0.0)
1501-2000	0(0.0)	0(0.0)	0(0.0)	5(8.9)	47(83.9)	4(7.1)	0(0.0)
>2000	0(0.0)	0(0.0)	1(7.7)	0(0.0)	12(92.3)	0(0.0)	0(0.0)
Settlement							
Rural	0(0.0)	1(2.8)	0(0.0)	4(11.1)	24(66.7)	7(19.4)	0(0.0)
Urban	2(0.6)	0(0.0)	1(0.3)	17(5.4)	267(84.8)	19(6.0)	9(2.9)
Total	**2(0.6)**	**1(0.3)**	**1(0.3)**	**21(6.0)**	**291(82.9)**	**26(7.4)**	**9(2.6)**

Source: fieldwork, 2019.

Considering gender of respondents and healthcare choices for children the results indicate that whiles majority of the male respondents preferred to send children to hospital when they experience acute illness, a minority of 48% of females sent their children to hospital for acute diseases. More females than males rather preferred to send children to the pharmacy or clinic for acute disorders. Although majority of both males and females preferred to send children to hospital for chronic illness, males formed a higher percentage compared to females for those who preferred hospital. However, a lot of females compared to males preferred spiritualists and clinics to treat their children of chronic illnesses.

In terms of the age of the respondents and the healthcare preferences for children in the household there were some variations when it comes to acute and chronic cases. For instance, whiles minority of the respondents who are less than 20 years, 41-50 or above 60 preferred the use of hospital to treat children with acute diseases, when it comes to chronic disease majority of them preferred the hospital. Those who are in the 41-60 years category had 9 of them who use spiritual consultations to receive chronic healthcare. However, none of them (41-60) including all the other respondents visit spiritualists when their children suffer from acute diseases.

In terms of religion the results indicate that majority of Christians (57%) preferred to take their children to the hospital when the children face acute illness. Half of the Muslims respondents rather preferred to visit the pharmacy to seek healthcare for their children whiles respondents who belong to the ATR were split between self-medication and clinic. In terms of chronic healthcare for children all of the respondents belonging to the ATR preferred to take their children to the hospital for healthcare whiles 35 Muslims representing 92% also preferred the hospital. Although majority of Christians also preferred to use the hospital to seek healthcare for their children suffering from chronic diseases, it is the only religious group with some respondents (2.9%) seeking spiritual healing for their children suffering from chronic diseases.

Almost half of the respondents who are married prefer to send their children to the hospital to seek healthcare for acute illness. Majority of the respondents who are single or divorced prefer to send children to the hospital for acute diseases. When it comes to choice of healthcare to treat chronic disease among children, all the respondents who are either cohabiting or separated preferred the hospital whiles about 90% of the single preferred the hospital. Nine of the respondents who are married representing 3.9% indicated that they consult spiritualists in treating chronic diseases of children, the only group with respondents who do so.

Concerning education of respondents and the healthcare choice they make for children, the study results showed that minority (39%) of those who have had no formal education had preferred to send children to the pharmacy when they suffer acute illness. Those who have completed JHS only also had minority of respondents indicating that they prefer to send children to the hospital for treatment of acute diseases. All the other respondents with the other levels of education indicated that they like to send children to the hospital for the treatment of acute diseases. Those who have vocational education have the highest percentage of respondents who send their children

to the hospital for the treatment of acute diseases. In accordance with one of the hypothesis of the study a Pearson's chi-square test of independence at 5% level of significance was run between educational background of respondents and the healthcare choice for children. The results indicate that there is a significant relationship between level of education and choice of healthcare for children when they suffer acute illness (Chi-square value (X^2) = 76.663, df = 20, P value at 5% level of significance = 0.001). In terms of chronic illness, the results of the study indicate that majority of respondents from all the educational backgrounds prefer to send children to the hospital for treatment when they suffer chronic diseases. Those who have vocational education had all the respondents saying that they prefer to send their children to the hospital for the treatment of chronic illness. Of those who have JHS education, 5 of them representing 5.3% indicated that they consult spiritualists in dealing with chronic illness faced by children in their household. Also, a Pearson's chi-square test of independence was run between level of education of respondents and the healthcare choice they make for children. The results of the study showed that there is a significant relationship between level of education of respondents and the healthcare choice they make for children (Chi-square value (X^2) = 69.804, df = 30, P value at 5% level of significance = 0.001).

The study also went ahead to look at the link between household size and the choice of healthcare for children. The results as shown in Table 4.4 indicates that those who belong to a household with a population of more than 10 had only 12% of respondents who prefer to send children to the hospital when the children experience acute illness. This is different when compared with the other respondents who belong to the other categories because in the other categories majority of the respondents rather preferred to send children to the hospital when they experience acute illness. Half of the respondents who belong to a household with more than 10 people prefer to send children to the hospital for the treatment of acute diseases. Of the respondents who belong to a

household size of more than 3, 7 of then indicated that they prefer to see a spiritualist when children in their household suffer from chronic illness. Thirty-seven percent of the respondents with a household size of more than 10 preferred to use traditional medicine when children in their households experience chronic illness.

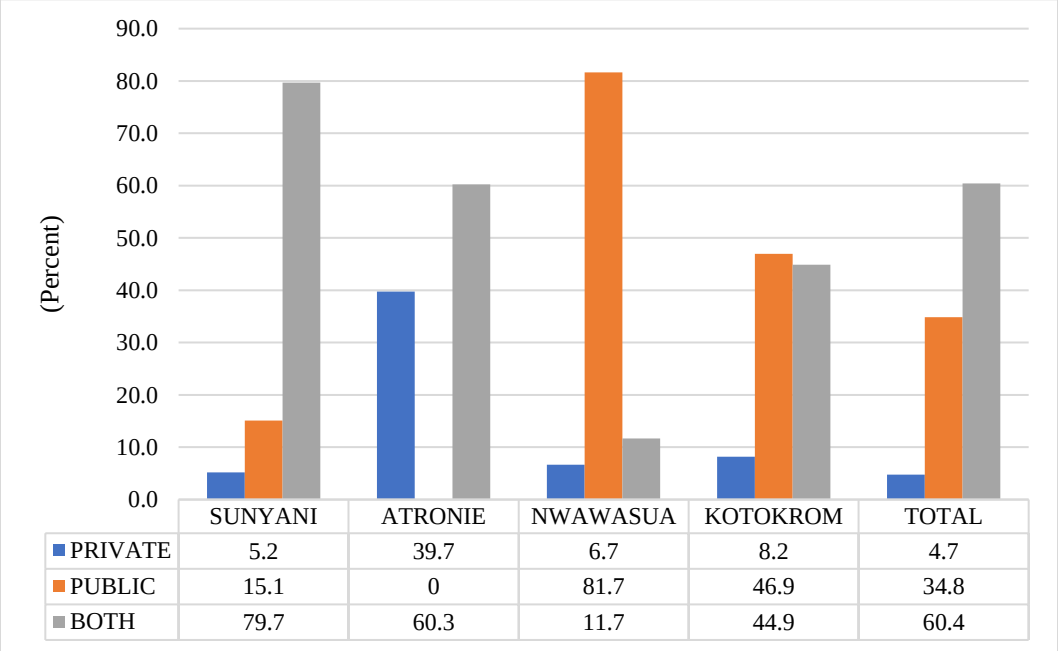
The results show that the highest number of people who prefer self-medication for children with acute illnesses are the lowest earners in terms of income. Eleven of the respondents (8%) who earn below GHC500 indicated that they prefer to use self-medication for children who suffer from acute illness. Also, the highest earners (>GHC2000) had all of its respondents indicating that they prefer to send children to the hospital when the children have acute illness. However, majority of all the various income groups said that they prefer to visit the hospital when children in their households experience chronic illness.

The study also considered the nature of settlement and the healthcare choices made for children in the households. The results indicate that while majority (56%) of the respondents who reside in urban areas prefer to send children to the hospital when the children suffer from acute illness, only 17% of those who reside in rural areas prefer to send their children to the hospital when they suffer from acute illness. A significant proportion of the rural dwellers (22%) prefer to do self-medication when their children suffer from acute illness. With respect to the healthcare choices when children suffer from chronic diseases, it was observed that although majority of respondents in both rural and urban centres prefer to send their children to the hospital, the respondents in the urban centres (85%) had a higher percentage compared to rural respondents (67%).

The study also went on to consider the type of hospital respondents visit – that is whether private, public or both. The results indicate that majority of the respondents (60%) visit both private and

public hospitals, followed by 34% who said they visit public hospitals. Only a small proportion indicated that they visit a private hospital only, as shown in Figure 4.3.

Figure 4.3 Type of hospital visited



	SUNYANI	ATRONIE	NWAWASUA	KOTOKROM	TOTAL
PRIVATE	5.2	39.7	6.7	8.2	4.7
PUBLIC	15.1	0	81.7	46.9	34.8
BOTH	79.7	60.3	11.7	44.9	60.4

Source: Fieldwork, 2019

Based on the in-depth interviews with healthcare workers especially nurses, it was revealed that females visit health facilities more than males and also children visit health facilities more compared to adults. The incidence of females visiting health facilities more could be attributed to much concern shown by females to health compared to males who may otherwise overlook certain things. Children may also be prone to diseases due to a weaker system coupled with their exposure to infections resulting from playing around all the time.

4.6 Factors influencing the choice of health care service in the Sunyani Municipality

In analysing the factors that influence healthcare choices in the Sunyani Municipality the study employed a logistic regression involving independent variables such as gender, age, income, level of education, travel time in reaching health facility, rural/urban setting, distance to health facility and ownership of health insurance and the dependent variable being whether individuals use formal or informal healthcare service. The results are displayed in Table 4.5.

Gender

The gender of the individual despite playing a very important role in determining the choice of a facility to receive treatment in the event of an ailment is not statistically insignificant. The study finds that individuals who are males, relative to females, are less likely to use formal means like hospitals, health centres, and polyclinics in the treatment of acute illness such as headaches, body pains, and stomach upset. The odds of using formal means in the treatment of acute illness is 0.853 (1-0.147) less likely for males with a percentage decrease of about 3 percent. Individuals who are males, relative to females, are more likely to use formal means in the treatment of acute illness for their children. This increases by approximately four percentage points compared to the five percentage point decrease in using formal means in the treatment of chronic ailment for children. Further, males with chronic sicknesses are 0.611(1-0.389) more likely to use formal means in receiving treatment in the event of an ailment than females. This increases the percentage of using formal means in treating chronic illness by four percent for males.

Table 4.5 Logistic regression model for healthcare choice for adults and children

	Acute Illness Adults		Acute Illness Children		Chronic Illness Adults		Chronic Illness Children	
Explanatory variables	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**
Sex (Base reference=Female)								
Male	-0.147	-0.030	0.267	0.038	0.389	0.040	-0.050	-0.005
	(0.240)	(0.048)	(0.322)	(0.045)	(0.320)	(0.032)	(0.389)	(0.037)
Age	-0.084*	-0.017*	0.000	0.000	0.027	0.003	-0.312***	-0.029***
	(0.046)	(0.009)	(0.099)	(0.014)	(0.066)	(0.007)	(0.120)	(0.012)
Age squared	0.001	0.000	0.000	0.000	-0.000	-0.000	0.003**	0.000**
	(0.000)	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)
Income	0.000***	0.000***	0.000	0.000	0.001*	0.000*	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Educational level (Base reference= Non-formal)								
Formal	-0.126	-0.026	1.108*	0.208*	0.103	0.011	-0.425	-0.035
	(0.525)	(0.109)	(0.595)	(0.134)	(0.681)	(0.076)	(0.868)	(0.062)

	Acute Illness Adults		Acute Illness Children		Chronic Illness Adults		Chronic Illness Children	
Explanatory variables	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**
Travel time (Base reference= 30 minutes and less)								
More than 30 minutes	0.214	0.044	0.141	0.020	-0.146	-0.016	-1.307**	-0.171**
	(0.431)	(0.092)	(0.462)	(0.063)	(0.491)	(0.056)	(0.517)	(0.084)
Location (Base reference= Rural)								
Urban	-0.869**	-0.192**	0.864*	0.153*	0.626	0.078	1.132**	0.144**
	(0.390)	(0.090)	(0.452)	(0.093)	(0.526)	(0.076)	(0.549)	(0.087)
Nearest Health facility (Base reference= Less than 5km)								
5km and more	0.490**	0.098**	0.108	0.016	-0.931***	-0.094***	-0.003	-0.000
	(0.251)	(0.050)	(0.320)	(0.047)	(0.336)	(0.033)	(0.434)	(0.041)
Health insurance (Base reference= Yes)		-0.031	-0.792	-0.140	0.741	0.064	Omitted	

	Acute Illness Adults		Acute Illness Children		Chronic Illness Adults		Chronic Illness Children	
Explanatory variables	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**	**Odds Ratio**	**Marginal Effects**
No	-0.158							
	(0.443)	(0.085)	(0.691)	(0.142)	(0.692)	(0.048)		
Constant	1.758		-0.983		0.230		8.165***	
	(1.294)		(2.131)		(1.852)		(2.849)	
Observations	397		330		397		321	

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Age

As the individual advances in age, he/she is more likely to use formal means in the treatment of acute illness for children and chronic illness for adults. This is not statistically significant. However, in the use of formal means for the treatment of acute illness for adults and chronic illness for children, a negative and significant relationship exists. That is, the likelihood of using formal means for the treatment of acute illness for adults and chronic illness for children is 0.916 (1-0.084) and 0.688 (1-0.312) less likely, respectively, for individuals as they age. The percentage decrease in the use of formal means is about 2 and 3 percent respectively. This implies that as the individual ages he/she takes the treatment of his/her acute illness less serious whiles they look at treating chronic illness with a particular interest since that can be fatal. Again, the individual considers the treatment of acute illness on their children serious. The age squared is included to see the point at which the individual will decide to stop using formal means to the treatment of an ailment. The study showed that there is a turning point in the use of formal means in the treatment of only chronic illness for adults while all other forms of illness have no turning point. This means that for acute illness for adults, acute illness for children, and chronic illness for children, there is no age at which the individual will decide to stop seeking formal means for its treatment. As a result, a quasi-linear relationship exists between the age of the individual and the use of formal means in the treatment of chronic illness for adults.

Income

The income of the individual has a positive relationship with the use of formal means in the treatment of ailment. This means that an individual that experiences a GHC 1.00 increase in his/her income level is more likely to use the formal means of obtaining treatment for acute and chronic

illness of both adults and children. This variable is statistically significant at 1 and 10 percent, respectively, in determining the use of formal means in the treatment of sickness for adults with both acute and chronic illnesses.

Level of education

Further, the educational level of the individual plays a key role in determining the choice of health facility, whether formal or informal, to seek treatment against any sickness and/or ailment. Concerning the educational level, using non-formal education as the base reference, it can be seen that, individuals with formal education are 0.874 (1-0.126) less likely to use formal means in the treatment of acute illness. The likelihood of using hospitals, polyclinics, and other health centres decreases by 3 percentage points for individuals with acute illness. Again, individuals with formal education, relative to non-formal education, are 0.108 (1.108-1) more likely to use formal means in treating acute illness of their children. This likelihood increases by 21 percent. This means that individuals with formal education will not take risks about the health of their children and would prefer to use hospitals rather than self-medicate their children since they are delicate and may not know what exactly might be wrong with them. This is significant at 10 percent. Also, individuals with formal education, relative to those with non-formal education, are concerned about the choice of health facility in the treatment of their chronic illness. This is because they will be abreast of the health conditions of their illness and would not want to put their health in jeopardy and as such will prefer the formal means of treating the sickness rather than self-medicate, use the pharmacy, and traditional medicine. Although this is not significant, it increases the likelihood of using formal means in the treatment of ailment by 1 percent.

Travel time to health facility

The travel time used in reaching the health facility by the individual has a positive relationship with the treatment of acute illness for adults and children. However, this has a negative relationship with the treatment of chronic illness for both adults and children. These are therefore not statistically significant. Using travel time of 30 minutes and less as the base reference, individuals that use a travel time of more than 30 minutes are 0.307 (1.307-1) less likely to go to hospitals and clinics, as formal means, to treat the chronic ailment of their children. This is statistically significant at 5 percent. This possibly is because the time involved is too much coupled with the fact that the ailment of the child is chronic and as such the individual will therefore not take the risk of taking that long distance to treat the child of chronic illness for fear of worsening health condition.

Settlement (rural/urban)

Using individuals from rural areas as the base reference, individuals from urban areas are 0.131 (1-0.869) less likely to go to the hospital for the treatment of an acute ailment. This is statistically significant at 5 percent. The likelihood of treating acute illness and chronic illness for children from urban areas through formal means increases by 15 and 14 percent and significant at 10 and 5 percent respectively. This means that individuals in urban centres are more interested in using formal means in the treatment of ailment for their children compared to their counterparts in rural areas. This could be due to the existence of more hospitals, clinics, and health centres in urban areas which are Sunyani and Atronie than in rural centres such as Nwawasua and Kotokrom. However, using formal means to the treatment of chronic illness for adults is statistically not significant regardless of the location of the individual.

Distance to nearest health facility

Using less than 5 kilometres (km) as the base reference, the distance to the nearest health facility for individuals who use more than 5 km has a positive relationship with the formal means of treating acute illness for adults and children. While the use of formal means to the treatment of acute illness for children has a positive relationship with the distance taken to the health facility, it is not significant for adults. However, the treatment of acute illness for adults is significant at 5 percent. That is, individuals that use more than 5 km to access formal means of treating acute illness, relative to their counterparts that use less than 5km, are 0.51 (1-0.490) more likely to use hospitals and clinics. This is because of the long-distance in getting access to formal health care and as such the individual will in the event of any ailment, as much as possible, treat it fast before it escalates into chronic illness or something worse where the individual's life will be at risk in treating the chronic illness due to the long distance. Similarly, individuals that use 5km or more are 0.997 (1-0.003) less likely to use formal means of treating chronic illness for their children. This is due to the fear of the unfortunate happening in the event of seeking treatment to the ailment because of the long distance.

Health insurance

Relative to individuals that have health insurance, those that do not have health insurance are 0.842 and 0.208 less likely accessing formal health care in treating acute illness for adults and children respectively. That is, individuals that do not own health insurance cannot access treatment for acute illness from hospitals, clinics, and health centres. They are however more likely to use their health insurance to access treatment against the chronic illness for adults if they have one. This likelihood increases by 6 percent. This means that individuals that do not own health insurance are less likely

to use hospitals and clinics in accessing healthcare compared to their counterparts that do own health insurance. This, therefore, underscores the need for individuals to own health insurance as it serves as a hedge against ailment.

However, with respect to the types of formal health services used by respondents the study observed that in the villages and small towns where there are chip compounds and clinics, those who mostly visit these facilities are the middle and low-income earners within the community. The supposed 'high' income earners are demotivated to visit facilities in the small towns they reside due to the inadequate equipment and other services attached to the facilities. The health centres lack scans such as computed tomography scans, Magnetic Resonance Imaging scans or x-ray machines, etc. For instance, in Kotokrom, the challenge experienced at the health centre in the community is the lack of some equipment such as scanning equipment. Therefore, there is the need to refer patients to the municipal hospital. When the 'high income' people come for healthcare, and they are referred to bigger hospitals in town for scan, they find it meaningful to visit the bigger hospital the next time to receive the best care.

Another factor that influences choice for people in small towns is inadequate drugs in health facilities. The untimely release of funds to cater for health insurance beneficiaries affects the availability of some drugs. When patients visit the hospital, and they are asked to purchase drugs by themselves because those drugs are not available in the facilities, they get offended. However, in the bigger towns, some pharmacies offer NHIS services and therefore when prescriptions are given, one can go there to get the medicines free of charge. This drives people no matter the income level from using facilities in the small towns to using facilities in the big towns so that they will

enjoy these services. A case in point is the narration by a nurse at Kotokrom on why people visit elsewhere for healthcare services:

"…there is the shortage of drugs here too. So, when we tell them [patients] to go and buy they get offended as if the medicine is in our pocket and we do not want to give them, but it is not our fault. If the insurance people are not paying, how can we get the money to go and buy the medicine. So, when they go home, they talk and say that when they came, we could not give them medicine. So, the news spreads so when another person is sick; they decide to go to the big hospital to offset the trouble of haven to go and buy their own medicine. With the big hospitals, some pharmacies take insurance so when they go there, they will go and take it. But here it is not like that.'' [in-depth interview with a nurse at Kotokrom health centre, March 5, 2019].

Usually, there is under-utilization of the facilities in smaller towns whiles there is pressure on hospitals in the big towns. Increased education is now changing the narrative, which previously existed where many people will visit the pharmacy/drug store or offer self-medication. The combined factors of the NHIS and education among the populace to seek medical advice instead of self-medication has led to more people visiting the hospital for healthcare. However, there seems to be preferences with respect to the type of hospital visited. Pharmacy cases have dropped considerably according to the nurses when it comes to seeking healthcare on chronic or more severe health conditions. People mostly visit pharmacies or drug stores when sicknesses are mild like headaches.

From the perspectives of the households, perceptions of inefficiency of some health facilities affect their patronage. For instance, there is the notion that some facilities when you visit it is only paracetamol that you will be given. This serves as a demotivation for residents to visit such facilities although they may be closer than other health facilities. This goes to support the views of the health officials that the lack of drugs serves as demotivation for patients to visit health

facilities in smaller towns. From a focused group discussion in Atronie, a middle-aged woman had the following to say:

''Going to the health centre here at Atronie is a waste of time sometimes. They only have paracetamol. Although they say that the health insurance caters for everything, when you go they tell you that they do not have the medicine you need so you have to go and buy from a pharmacy. If that is the case, then going to the pharmacy will even be better. [female FGD participant at Atronie, March 12, 2019].

In Nwawansua however, there is no health centre, clinic or hospital. Before residents can receive healthcare unless they travel to Atronie which has a health centre. This affects the decision by residents in this community to receive formal healthcare. They either go to a drug store or use traditional medicine. Patients who do not have health facilities in their communities seem to delay in seeking healthcare. They sometimes only visit the hospital when the sickness becomes serious creating difficulties in receiving treatment. Distance, therefore, is a factor in healthcare choices. A nurse in Atronie health centre said the following to support the claim:

''With the village when people are supposed to come to the hospital when they are sick, they will rather go and buy medicine from the drug store. When the medicine does not work before they come to the hospital. This is the only hospital here...''[Interview with a nurse in Atronie, March 14, 2019].

This means that villages without hospitals or health centres or clinics do not visit the hospital as often when they fall sick compared to those in communities where there are health facilities. Cases involving children are somewhat different. In all the health facilities visited, the highest group that come to the health facilities were children suggesting that there are differences in healthcare choices when it comes to children and adults. This could also mean that children fall sick more often compared to adults; thus, their frequent visits to hospitals or health facilities.

With the NHIS, people have become more inclined to visiting the right healthcare service, such as the hospital when they are sick. People revealed in the interviews and FGDs that, once they have health insurance, they do not use crude methods of healthcare such as self-medication or consulting herbalists. In the past, with the cash and carry system financing healthcare was a problem, so the hospital was not visited regularly. A farmer in Kotokrom said the following:

> *"… the insurance is really helping us now, although all drugs are not covered, it is better than paying everything out of pocket. My mother is very old and she suffers from BP, now I can afford to take her to the hospital all the time due to the insurance."* [a 45-year-old farmer in Kotokrom during FGD on April 3 2019].

During the FGDs, respondents largely confirmed that they usually visit the nearest healthcare centre, which is the pharmacy/drug store when they suffer an acute illness. In the case of chronic illness, it does not matter the closest healthcare facility; most of them revealed they would visit the hospital. A case in point is the remarks made by a 50-year-old woman during a focus group discussion in Sunyani:

> *…as for adults we go to the pharmacy when we suffer mild illness like headache or cold. You do not have to worry and waste time by following long queues at the hospital. Getting paracetamol from the pharmacy will make you feel better. However, you know, with children you cannot treat them the same way… we usually take children to the hospital whether they suffer acute illness or not* [in an FGD by a 50-year-old woman in Sunyani on March 5, 2019].

4.7 Barriers affecting the choice of health care services in the Sunyani municipality

The study assessed barriers in two ways. First is, the barriers that affect access to healthcare services and the second looks at the barriers that affect usage of healthcare services. With respect to barriers that affect access, the study identified four main barriers associated with access to healthcare choices by respondents. Not all the respondents alluded to having challenges to either access or usage of healthcare choices. The results indicate that 30 %of the respondents who answered that question alluded to longer waiting times as a barrier to accessing healthcare. This is the barrier more people ascribed to healthcare access. Another 25.8% of the respondents alluded to inadequate transport facilities as a barrier to healthcare access whiles the remaining sited long distance (22%) and high transportation cost (22%). Longer waiting time received the highest number of cases as indicated in Table 4.6.

The study also looked at the various communities and the kind of barriers they assigned to accessing healthcare. High percentage of people in Atronie and Nwawasua sited long distance to preferred healthcare as a barrier to healthcare access compared to Sunyani and Kotokrom. It can be observed that these are the areas with low concentration of health facilities in the municipality. A high percentage of people in Atronie indicated that inadequate transport facility is a barrier to healthcare usage which is the highest amongst all the communities.

A higher percentage of respondents in Sunyani and Nwawasua claimed that longer waiting time in the health facilities is a barrier to the access of healthcare services. The percentage of respondents who indicated that high transportation cost is a barrier to healthcare access was very minimal when compared with the other barriers sited. Table 4.6 provides a summary of communities and the barriers to the access of healthcare services.

Table 4.6 Communities and barriers to healthcare access

Barrier to access		COMMUNITY				Total
		Sunyani	Atronie	Nwawasua	Kotokrom	
long distance to preferred health facility	Frequency	11	10	4	3	28
	% in community	14.1%	40.0%	40.0%	27.3%	
	% of Total	8.9%	8.1%	3.2%	2.4%	22.6%
inadequate transport facilities	Frequency	20	8	1	3	32
	% in community	25.6%	32.0%	10.0%	27.3%	
	% of Total	16.1%	6.5%	0.8%	2.4%	25.8%
Longer waiting time	Frequency	25	4	4	4	37
	% in community	32.1%	16.0%	40.0%	36.4%	
	% of Total	20.2%	3.2%	3.2%	3.2%	29.8%
High transport cost	Frequency	22	3	1	1	27
	% in community	28.2%	12.0%	10.0%	9.1%	
	% of Total	17.7%	2.4%	0.8%	0.8%	21.8%

Source: Fieldwork, 2019

In terms of barriers that affect usage of healthcare services more barriers were given by the respondents although not all the respondents indicated that they faced barriers in the usage of their healthcare services. Two hundred and eighty-two of the respondents indicated that they had barriers. These barriers include the non-acceptance of NHIS by health facilities, inadequate medical equipment, longer waiting times, poor infrastructure, poor service quality and high cost of service. Seventy-five of the respondents representing 26% indicated that inadequate medical equipment is a major barrier that hinders the use of healthcare services. This is the barrier that received the highest score followed by longer waiting times. Only four (4) of the respondents representing 3% of those who responded to that question cited religious or cultural beliefs as a barrier to the use of healthcare services which is the lowest score among all the barriers. The summary of the responses are shown in Table 4.7 below.

Table 4.7 Barriers to the usage of healthcare services

Barriers to usage	Responses	
	Frequency	Percent
Does not accept NHIS/ other insurance	17	6.0%
Inadequate medical equipment	75	26.6%
Longer waiting times	58	20.6%
Poor infrastructure	52	18.4%
Poor quality of service	40	14.2%
Religious or cultural beliefs	4	1.4%
High cost of service	36	12.8%
Total	282	100.0%

Source: Fieldwork, 2019

A higher percentage (27%) of people in Kotokrom than all the other ccommunities indicated that the unacceptability of the NHIS by some healthcare providers serve as a barrier to the use of healthcare services. The results also show that the respondents living in communities (Atronie and Nwawasua) with limited healthcare services had a higher percentage indicating that inadequate medical equipment is a barrier to the use of healthcare services compared to the communities where there is a comparatively higher concentration of health facilities (Sunyani and Kotokrom). Respondents in Sunyani had the highest percentage of respondents indicating that poor hospital infrastructure is a barrier to the usage of healthcare services. Nwawasua had the highest percentage of respondents who complained that poor quality of service is a barrier to the use of healthcare services. More of the respondents in Sunyani complained of high cost of service as a barrier to the

usage of healthcare than any other community. The summary of the results is displayed in Table 4.8.

Table 4.8 Community and barriers to the usage of healthcare services

Barrier to usage		COMMUNITY				Total
		Sunyani	Atronie	Nwawasua	Kotokrom	
Does not accept NHIS/ other insurance	Frequency	12	1	1	3	17
	% in community	5.5%	2.4%	8.3%	27.3%	
	% of Total	4.3%	0.4%	0.4%	1.1%	6.0%
Inadequate medical equipment	Frequency	56	14	4	1	75
	% in community	25.8%	33.3%	33.3%	9.1%	
	% of Total	19.9%	5.0%	1.4%	0.4%	26.6%
Longer waiting times	Frequency	44	8	3	3	58
	% in community	20.3%	19.0%	25.0%	27.3%	
	% of Total	15.6%	2.8%	1.1%	1.1%	20.6%
Poor infrastructure	Frequency	42	6	0	4	52
	% in community	19.4%	14.3%	0.0%	36.4%	
	% of Total	14.9%	2.1%	0.0%	1.4%	18.4%
Poor quality of service	Frequency	29	8	3	0	40
	% in community	13.4%	19.0%	25.0%	0.0%	
	% of Total	10.3%	2.8%	1.1%	0.0%	14.2%
Religious or cultural beliefs	Frequency	3	1	0	0	4
	% in community	1.4%	2.4%	0.0%	0.0%	
	% of Total	1.1%	0.4%	0.0%	0.0%	1.4%
High cost of service	Frequency	31	4	1	0	36
	% in community	14.3%	9.5%	8.3%	0.0%	
	% of Total	11.0%	1.4%	0.4%	0.0%	12.8%

Source: Fieldwork, 2019

The interviews confirmed some of the results concerning the barriers that affect usage of healthcare services. According to a report by a health personnel in Nwawasua, they do not have a lab to offer laboratory services so when people report they have to refer them to Sunyani to go for lab test. That affects the patients a lot. In her own words she had this to say:

Some patients report dizziness in the facility and if we want to check for anaemia or any other thing we have to refer them to town because we do not have laboratory here. So, the transportation to town to carry out these tests sometimes worries the patients. [interview with a health personnel in Nwawasua on March 19, 2019].

Some of the health facilities also lack some infrastructure such as accommodation. In Nwawasua for instance what they have is a CHPS compound. However, there is no accommodation facility attached to the CHPS for staff. Due to this, emergency cases in the night cannot be attended to and the only midwife in the facility has to ration her days due to no accommodation. This particular affects the usage of the facility by community members because one cannot be assured of healthcare in the facility at all times.

4.8 Summary

The results of the study were presented in this chapter. After showing results for the demographic characteristics of the respondents, the results as obtained per the objectives were also presented. These include the socio-economic backgrounds and choice of healthcare services, the factors that influence the choice of healthcare and the barriers that affect the choice of healthcare. Considerations were given to choice of healthcare for adults and children in the households. Majority of adults prefer to visit the pharmacy/drug store when they experience acute illnesses

whiles when it comes to chronic diseases majority of the respondents prefer hospital/clinic. When it comes to the healthcare choices for children in both acute and chronic cases, majority of the respondents prefer to send their children to the hospital/clinic.

When it comes to factors that influence healthcare choices for children and adults, it was observed that the various factors such as age, gender, level of education, type of settlement, income among others play out differently when it comes to healthcare choice for children and adults and also the nature of the illness i.e. whether acute or chronic.

The chapter indicates some of the barriers that affect healthcare choices as non-acceptance of NHIS by health facilities, inadequate medical equipment, longer waiting times, poor infrastructure, poor service quality and high cost of service.

CHAPTER FIVE: DISCUSSION

5.1 Introduction

This chapter provides a discussion on the results in Chapter four which is about choice of healthcare services in the Sunyani Municipality. The discussion follows the major themes of the study which incorporates how the various socio-economic groups in the Sunyani municipality choose their healthcare services and the factors that affect such choices. Discussions are also provided on the barriers that affect access and usage of healthcare services within the Municipality. Although these discussions are provided separately, they are not mutually exclusive. A brief discussion on the demographic characteristics of respondents, household morbidity and healthcare financing in the Municipality is also provided.

5.2 Demographic characteristics, morbidity and healthcare financing in the Sunyani Municipality.

In the Sunyani Municipality, there are more females than males with females being 50.1% (GSS, 2014). This distribution conforms to the results of the study where majority of the respondents were females. In the study the wide gap between males and females in terms of the number of respondents can be explained by the fact that men are mostly not at home going about businesses outside of home whiles women normally operate small businesses at home thus the possibility of meeting more women during the data collection exercise. With respect to age there is an inverse relationship between age and population in the municipality. This means that as people age in the municipality, their population reduces looking at it especially from 30-69 years (GSS, 2014). This however varies with the age distribution of the respondents where there were more respondents above the age of 30 compared to those below 30. This makes sense given that the study focused on household heads most of whom are more than 30 years.

In the Sunyani Municipality, the religious structure shows that there are more Christians than any other religion. In the Municipality Christians form 71.7% of the entire population, followed by Muslims (12.6%) (GSS, 2014). This is reflected in the survey results where majority of the respondents were Christians followed by Muslims. The marital status of the respondents in the survey compared to the situation in the municipality shows a mismatch. This is because, in the municipality, the majority of the people are single whiles the survey results indicate that the majority of the respondents are married. This could partly be accounted for by the fact that the analytical report of the Sunyani Municipality took into consideration all those who are 12 years and above whiles the study concentrated on those 20 years and above as its respondents.

The results suggest a high literacy rate among the respondents based on the percentage who have had an education. The highest proportion of respondents having tertiary education could be because the highest number of respondents came from Sunyani, where there are comparatively higher white-collar jobs. At the municipal level, the highest category of inhabitants is those who have had primary education, with 33.2% followed by those who have had tertiary education with 23.1% (GSS, 2014). This entirely does not reflect the survey results.

The mean household size of the respondents is lower than the mean household size of the municipality, which is 3.9 (GSS, 2014). This could be explained by the fact that Sunyani as a whole has a low rate of household size and since the study had more than 50% of its respondents coming from Sunyani, that might have influenced this mismatch.

The study had majority of its respondents being civil servants. According to the World Bank (2018), living on less than USD 3.20 per day is an indication that one is poor in lower-middle-

income countries, including Ghana. This result, therefore, suggest that more than half of the respondents are above the poverty line.

A high percentage of the respondents have registered with the NHIS. A lot of the respondents are employed and are above the poverty line looking at their income levels. This could influence the high incidence of NHIS subscription. According to Kumi-Kyereme & Amo-Adjei (2013), by wealth status, the likelihood of purchasing insurance is significantly higher among people with incomes. There is high morbidity rate in the study area which have negative consequences on household income in terms of spending on healthcare affecting income. The high prevalence of malaria as shown by the study is synonymous with what happens in the whole municipality as shown by the district health report.

5.3 Socio-economic background and choice of healthcare services for children and adults

The study by Danso-Appiah et al. (2010) concluded that perceived severity of diseases is the most significant determining factor in seeking health care at health facilities in Ghana. Hedge (2009) in his health behavioural studies acknowledged the fact that assessing health care utilisation in the context of disease severity brings to the fore various dynamics in illness response. Choice of healthcare services used by adults in acute and chronic situations vary considerably. The major healthcare service used by adults in acute illness situations is the pharmacy or drug store whiles chronic situations attract formal healthcare services mostly hospitals. There is not much difference when it comes to socio-economic background and choice of healthcare services. Also, there is not much difference when it comes to socio-economic background of parents and the healthcare choice they make for children in both chronic and acute situations. Children are more likely to be sent to the hospital in both acute and chronic situations no matter the socio-economic background of parents or guardians.

This is consistent with the study by Nunes et al (2014) which concluded that the use of healthcare services is similar across socio-economic groups. However, not all instances reflect this assertion. This study has shown that level of education is significant with healthcare choices. This is in consonance with studies by Stekelenburg (2004), Hedge (2009), and Saeed and Abdul-Aziz (2013), where education was established to have a positive and statistically significant relationship with the choice of health care resource. Saeed and Abdul-Aziz (2013), indicate that transportation barriers lead to rescheduled or missed appointments, delayed care, and missed or delayed medication use. These consequences may lead to poorer management of chronic illness and thus poorer health outcomes. Also, the study has observed that adults who are single are more likely to visit formal healthcare services in the treatment of acute illnesses. This may be due to such people having less burden in terms of dependants thus may have more disposable income to see a doctor. It may also be a time factor on the side of single adults to visit the hospital for healthcare services.

According to Fotaki (2010) pro-market policies instead of meeting the alleged needs of users are likely to promote a new type of highly volatile and fragile partnerships, and create a new subordinated user who has no choice but to 'choose' services they have little control over. The choices made by respondents were not based on certain facilities. In other words, people have less choice over the type of hospital or pharmacy they visit when they decide to visit a pharmacy or hospital. When people decide to visit the hospital they normally visit those closest to them and do not really have to choose between hospitals as confirmed in Fotaki (2011).

5.4 Factors that influence choice of healthcare

Kroeger identifies some variables that influence the use of healthcare which he puts in three broad categories. These include predisposing factors, enabling factors and health services system factors

(Kroeger, 1983). With predisposing factors, mention is made of age; sex; household size and status; interaction with the social network; ethnicity; religion; education; degree of cultural identity change, socio-economic status and occupation. The enabling factors look at the supply side of healthcare and how that influences healthcare behaviour. Kroeger makes mention of geographical accessibility, communication between healers and patients, quality of care, and cost. With the third factor i.e. the characteristics of the disorder, Kroeger looks at how the condition of illness – chronic or acute; severe or trivial; the expected benefits and consumer satisfaction – play a role in an individual's healthcare behaviour or choice. Certain patient groups such as those highly educated and younger patients (Exworthy and Peckham, 2010), patients with higher incomes (Kiiskinen et al 2010) and patients without an existing (satisfactory) relationship with a provider (Robertson and Burge, 2011) make an active choice more often. The importance patients attach to choice of healthcare differ between patient groups. For example, according to Robertson and Burge (2011), particular groups of people such as older patients, female patients and less highly educated patients are more favourably inclined towards the free choice of hospital.

This study has identified that a number of factors influence healthcare choices. However, there are variations in terms of which factors affect choice in what situations (chronic or acute) and with respect to which individuals in the household (adults or children). For instance, the study revealed that although gender plays an important role in determining the facility to receive care it is not statistically significant in determining whether an adult chooses a formal or informal healthcare when they suffer acute diseases. This is contrary to the findings by Robertson and Burge (2011) who indicate that gender plays an important role in healthcare choices. However, males are more likely to choose formal healthcare for their children when they suffer acute illness compared to females. Traditionally, men are not so much into child care as women may play the most roles in

child up-bringing. This may give women an insight as to what is normal and what is not when it comes to child sicknesses. Therefore, men may feel more likely to seek formal healthcare for children due to their little experience with childcare. However, when it comes to adults suffering chronic diseases, the study has shown that males are more likely to use formal healthcare compared to females which suggests that gender is a factor in determining healthcare choice as stated by Kroeger (1983) and Robertson and Burge (2011). The study has also shown that as individuals advance in age they are more likely to use formal healthcare which is consistent with Robertson and Burge (2011) and contrary to studies by Exworthy and Peckham, 2010; and which states that younger people are more likely to make an active choice in healthcare use. The study indicates that income plays an important role in determining healthcare choices when it comes to the use of formal healthcare meaning that individuals who experience an increase in income are more likely to use formal healthcare in treating both acute and chronic illness for children and adults. This conforms to several other studies such as Kiiskinen et al (2010) and Meleddu et al. (2020) that conclude that income is significant in making healthcare choices.

Individuals with formal education are less likely to use formal healthcare service such as hospitals and clinics to treat acute illness whiles when it comes to the treatment of acute illness of children people with formal education are more likely to use formal healthcare.

The study has also shown that travel time has positive relationship with choice of healthcare for treatment of acute illness for adults and children. However, there is a negative relationship with the treatment of chronic illness for both adults and children. This is an indication that when children or adults suffer chronic illness it does not matter how far the preferred health facility is, they may still visit. This is a further confirmation that the nature of a disease counts in the selection of healthcare.

The study has also shown that individuals in urban areas are less likely to go to the hospital to receive healthcare for acute illness. This is because, for such acute illnesses like headaches and stomach upsets, the informal means, pharmacy, are widely used since they are widespread in the urban areas. Again, the study shows that individuals in urban areas are more likely to use formal healthcare to treat ailment of children compared to their counterparts in rural areas. This may be due to income disparities between rural and urban folks or the availability of formal healthcare facilities in the urban areas. The study however did not predict the healthcare pattern for rural residents. Most studies conducted in developing countries, especially in the context of health care utilisation among urban and rural populace reports self-medication as an important alternative for most rural women in case of acute health condition for them and their children (Majaj et al., 2013). This assertion therefore contradicts the findings of the study.

The study has also shown that distance to nearest health facility is significant with healthcare choice in certain instances. Whiles distance matters in the choice of treatment for children and adults with acute illness, Esiyok et al., (2017) supports the idea of the impact of distance on choice destination for healthcare which is in consonance with the findings of this study. Distance may be a contributory factor to choose because in one way or the other it may influence the cost of travel to health facilities.

The study has also shown that people with health insurance are more inclined to use the health insurance in the treatment of acute diseases compared to those without health insurance. However, chronic disease treatment has no linkage with whether an individual uses formal healthcare or not. Buor (2004) for instance, in his study, reports on the change in utilization pattern of health services before and after the inception of the National Health Insurance Scheme (NHIS) in Ghana. This

was further corroborated by Blanchet et al (2012) in his study on the effect of NHIS on health care utilization in Ghana. The study therefore confirms the findings of these studies.

5.5 Barriers to healthcare usage and access

The study has identified some barriers in healthcare access and usage. Some of these barriers include long distance to healthcare, inadequate transport in accessing healthcare, waiting times and high transportation costs. However, NHIS non-acceptance, inadequate medical equipment, poor infrastructure, poor service quality and religious beliefs were some of the barriers that affected the usage of healthcare. However, some of the barriers are peculiar to areas with low concentration of health facilities. People living in areas with low concentration of health facilities believe that inadequate medical equipment is a barrier to the usage of healthcare services. This may be because in such areas there is limited choice because there is a smaller number of health facilities and the poor quality of those available might prevent people from using such facilities.

According to Syed et al. (2013) there is evidence to support that transportation barriers are significant in healthcare access. In their study it was identified that transportation barriers lead to rescheduled or missed appointments, delayed care, and missed or delayed medication use. These consequences may lead to poorer health outcomes. Also, in a study by Garcia-Subirats et al (2014) which compared the barriers to healthcare access and use in two municipalities in Brazil and Colombia, health insurance, geographical barriers, lack of equipment and health professionals, and availability of hospital facilities were some of the barriers identified to have influence on healthcare access and use. These results conform with the findings of the study broadly where health insurance and transportation among others were identified as some of the barriers to

healthcare access and usage. However, the issue of the unavailability of healthcare professionals did not come up in the current study.

5.6 Summary

This chapter contains the discussion of the study's results. The study's results on the socio-demographic characteristics of the respondents, socio-economic background and choice of healthcare services, the factors that influence healthcare choices and the barriers to healthcare choice were discussed. References were made to other studies that either conform or contradict the study's findings as well in this chapter.

The study by Danso-Appiah et al. (2010) concluded that perceived severity of diseases is the most significant determining factor in seeking health care at health facilities in Ghana. Choice of healthcare services used by adults in acute and chronic situations vary considerably. There is not much difference when it comes to socio-economic background and choice of healthcare services. Also, there is not much difference when it comes to socio-economic background of parents and the healthcare choice they make for children in both chronic and acute situations.

This study has identified that a number of factors influence healthcare choices. However, there are variations in terms of which factors affect choice in what situations (chronic or acute) and with respect to which individuals in the household (adults or children).

Some of the barriers to healthcare choice are peculiar to areas with low concentration of health facilities. People living in areas with low concentration of health facilities believe that inadequate medical equipment is a barrier to the usage of healthcare services.

CHAPTER SIX: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter is the final chapter of the study, which presents the summary, conclusions and recommendations. In the summary, a brief description of the research design is provided after which the major findings of the study are presented. Based on these findings, conclusions are made according to each of the objectives of the study. The final part presents recommendations for both policy and future studies.

6.2 Summary of the main findings

The study revealed that there is not much difference when it comes to socio-economic background and choice of healthcare services of adults. Also, there is not much difference when it comes to socio-economic background of parents and the healthcare choices they make for children in both chronic and acute situations. Children are more likely to be sent to the hospital in both acute and chronic situations no matter the socio-economic background of parents or guardians. However, choice of healthcare services used by adults in acute and chronic situations vary considerably. The major healthcare service used by adults in acute illness situations is the pharmacy or drug store whiles chronic situations attract formal healthcare services mostly hospitals. However, the study revealed a significant relationship between level of education and healthcare choice of adults and children in both acute and chronic situations.

With respect to the second objective that looked at factors that influence healthcare choices, the study revealed that there are variations in terms of which factors affect choice in what health situations (chronic or acute) and with respect to which individuals in the household (adults or children). Some factors influence choice in certain situations but not in others. Some of these

factors include age, gender, education, income, type of settlement, travel time and distance. Age influenced choice in adults suffering from acute illness but not in chronic situations. Income is also significant when it comes to choice of healthcare for adults but not for children.

The third objective which looked at the barriers that affect healthcare access revealed that high transport cost, longer waiting times, inadequate transportation facilities and long-distance to preferred healthcare facilities are some of the barriers that affect access to healthcare services in the Sunyani Municipality. In terms of usage of healthcare services, the study identified poor attitude of health professionals, lack of medical equipment, longer waiting times, high cost of service and poor quality of service as some of the barriers that affect usage of healthcare services.

6.3 Conclusions

Based on the findings of the study, the following conclusions can be made. First of all, the study concludes that the choice of healthcare does not necessarily vary among different socio-economic groups when it comes to choosing healthcare for both adults and children.

The study can also conclude that although factors such as age, gender, education, income, type of settlement, travel time and distance influence choice of healthcare, these factors affect choice differently depending on the household members involved (children or adults) and the nature of illness such as chronic or acute conditions.

The study further concludes that long distance to a health facility, inadequate transport services, longer waiting times and high transport are some of the barriers that affect healthcare access. With respect to healthcare usage, the study concludes that factors such as poor attitude of health

professionals, inadequate medical equipment, high cost of service, none acceptance of NHIS and religious/cultural beliefs are among the factors that affect usage of healthcare services.

6.4 Recommendations

Based on the findings of the study, the following policy recommendations are made:

- **Untargeted approach in public education on the use of the right healthcare choices**: The study has provided information to the effect that the choice of healthcare service does not vary considerably by socio-economic backgrounds of healthcare seekers. Therefore, programmes initiated by the Ghana Health Service and other stakeholders that seek to educate people to make the right healthcare choices should not target specific people with particular socio-economic backgrounds since this can lead to increased expenditure. Education or advocacy on using the tight healthcare can target all people at all times.
- **The need to seek formal healthcare in all medical conditions**: The study has also showed that there is high patronage of informal healthcare services especially for adults when they experience acute or mild illness. This development is problematic since not taking formal advice on medical conditions can lead to dire consequences. The study therefore recommends that the NCCE and the GHS make enough public education on the need to consult professional healthcare providers at all times for best health outcomes.
- **Conscious efforts at removing barriers that affect healthcare access and usage to promote the right healthcare choice**: The study also recommends that stakeholders in the health centres, as well as development agents, make conscious efforts at removing barriers that affect usage and physical access to healthcare facilities. This should be done through a multi-stakeholder approach with each stakeholder performing its functions. For instance,

bad road networks were some of the barriers coupled with high transport fares. Stakeholders can come together to remove these barriers.

- **Further research into factors that affect choice of healthcare for proper healthcare planning**: The study has showed that different factors affect different situations in healthcare choices. The study recommends the need for more evidence in future research to improve theory and policy on healthcare choice in Ghana. This will help in formulating the right policy and providing the necessary interventions on healthcare to targeted groups that need help. The GHS and the ministry of health can do this by sanctioning research on healthcare choices in specific areas of the country.

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APPENDIX 1: QUESTIONNAIRE

UNIVERSITY OF GHANA
DEPARTMENT OF GEOGRAPHY AND RESOURCE DEVELOPMENT
(Household Questionnaire)

Introduction

I am a student from the University of Ghana, Legon undertaking a study on the topic: Choice of healthcare services by patients and its influencing factors in the Sunyani Municipality, as part of the requirements for the attainment of my MPhil degree in Geography and Resource Development. The study will help inform policy on the use of healthcare choices. I count on your support in this regard by answering the following questions. All information is strictly for academic purpose and will be treated confidential.

Community name: …… **Questionnaire no.**: ……...……

Section A: Demographic characteristics of respondents

1. How long have you lived in this community? ……
2. Sex: a. Male b. Female
3. Age: ……
4. Religion: a. Christian b. Muslim c. Traditionalist d. other (please specify):…….
5. Marital status:

   a. Single b. Married c. Divorced d. Widowed e. Cohabiting e. Separated
6. Level of education: a. No education b. Primary c. JHS/JSS/Middle school

   d. Vocational/Technical e. SSS/SHS f. Tertiary
7. What is the total number of people in your household? ……..
8. Do you have dependents in your household? a. Yes b. No
9. If yes, how many are children (less than 18 years)? ……
10. If yes, how many are adults (18 years and above)? ……
11. Are you currently employed? a. Yes b. No
12. What is your main Occupation? ……
13. Do you engage in any additional paid work or occupation? A. Yes b. No
14. If yes, please state the kind of occupation(s) ……..
15. What is your average monthly income? ……
16. Role in household? a. Household head b. Spouse c. Son d. Daughter e. Other (please specify) ……..

Section B: Health seeking behaviour

17. Have you or any member of your household fallen sick over the past 12 months?
    a. Yes b. No

18. If yes, which of the following diseases were you suffering from? (tick all that apply)
    a. Malaria
    b. Hypertension
    c. Rheumatism
    d. Diarrhea
    e. Other acute respiratory infection skin disease/ulcers
    f. Anaemia
    g. Other (please specify)…….

19. How did you know what was making you ill?
    a. Self-diagnosis
    b. Pharmacy/drug store
    c. Clinic
    d. Hospital
    e. Traditional/herbal medicine
    f. Spiritualist
    g. Other (please specify)

20. Which of the following healthcare services are available in this community? (select all that apply)
    a. Pharmacy/drug store [ ]
    b. Clinic [ ]
    c. Hospital [ ]
    d. Traditional/herbal medicine[ ]
    e. Spiritualist [ ]
    f. Other (please specify) [ ]

21. Select in order of preference and usage, the healthcare service you mostly use with (1) being the highest and (6) being the least used.

Healthcare service	**Adults**	**Children (infants)**
Self-medication		
Pharmacy/drug store		
Health centre		
Clinic		
Hospital		
Traditional/herbal medicine		
Spiritualist		
Other (please specify)		

22. If you selected clinic/hospital, what type of hospital/clinic do you visit?

a. Private only b. Public only c. Private and public only

Factors influencing healthcare choices

23. Which healthcare facility are you or any member of your household likely to use in times of acute/less severe illness?

Healthcare service	**Adults**	**Children (infants)**
Self-medication		
Pharmacy/drug store		
Health centre		
Clinic		
Hospital		
Traditional/herbal medicine		
Spiritualist		
Other (please specify)		

24. Would you prefer another health facility to what you normally use in times of acute illness?

	Yes	No
Adult		
Children		

25. If yes, which type of health facility would you prefer?

Healthcare service	**Adults**	**Children (infants)**
Self-medication		
Pharmacy/drug store		
Health centre		
Clinic		
Hospital		
Traditional/herbal medicine		
Spiritualist		
Other (please specify)		

26. Which of the following explains why you do not use your preferred healthcare services in times of acute/less severe illness?

	Reasons	**Yes**	**No**
a.	Transportation difficulties		
b.	No family/friend/acquaintance works there		
c.	It was not recommended by someone		
d.	Does not accept NHIS/Other insurance		
e.	Longer waiting times		
f.	Poor quality of service		
g.	Religious or cultural beliefs		

h.	High cost of service		
i.	Other (please specify)		

27. Which of the following explains why you prefer your selected healthcare choice in times of acute or less severe illness?

	Reasons	**Yes**	**No**
a.	No transportation difficulties		
b.	Family/friend/acquaintance works there		
c.	Recommended by someone		
d.	Accepts NHIS/Other insurance		
e.	Shorter waiting times		
f.	Good quality of service		
g.	Religious or cultural beliefs		
h.	Low cost of service		
i.	Other (please specify)		

28. Which healthcare services are you or any member of your household likely to use in times of chronic diseases

Healthcare service	**Adults**	**Children (infants)**
Self-medication		
Pharmacy/drug store		
Health centre		
Clinic		
Hospital		
Traditional/herbal medicine		
Spiritualist		
Other (please specify)		

29. Would you prefer another health facility to what you normally use in times of chronic illness?

	Yes	No
Adult		
Children		

30. If yes, which type of health facility will you prefer?

Healthcare service	**Adults**	**Children (infants)**
Self-medication		
Pharmacy/drug store		
Health centre		
Clinic		
Hospital		
Traditional/herbal medicine		

Spiritualist		
Other (please specify)		

31. Which of the following explains why you do not use your preferred healthcare services in times of chronic/severe illness?

	Reasons	**Yes**	**No**
a.	Transportation difficulties		
b.	No family/friend/acquaintance works there		
c.	It was not recommended by someone		
d.	Does not accept NHIS/Other insurance		
e.	Longer waiting times		
f.	Poor quality of service		
g.	Religious or cultural beliefs		
h.	High cost of service		
i.	Other (please specify)		

32. Which of the following explains why you prefer your selected healthcare choice in times of chronic/severe illness?

	Reasons	**Yes**	**No**
a.	No transportation difficulties		
b.	Family/friend/acquaintance works there		
c.	Recommended by someone		
d.	Accepts NHIS/Other insurance		
e.	Shorter waiting times		
f.	Good quality of service		
g.	Religious or cultural beliefs		
h.	Low cost of service		
i.	Other (please specify)		

33. Who usually makes the decisions about the health care of your household?
    a. Self b. Family member c. Parents c. Partner d. Others, please specify……..

Section C: Barriers that affect choice of healthcare services

34. What kind of health facility is nearest to your house?
    a. Hospital
    b. Clinic
    c. Pharmacy shop
    d. Others (please specify) …….

35. How far is your house from this health facility? …….

36. How long does it take you to get to this facility? ……

37. Do you face any challenges in getting to this health facility? a. Yes b. No

38. If yes what are some of these challenges?

	Challenges	**Yes**	**No**
a.	Long distance to preferred health facility		
b.	Lack of transport to access facility		
c.	Longer waiting times		
d.	High transport cost		
e.	Other (please specify)		

39. Do you face any difficulties in using this facility? A. yes b. No

40. If yes, what are some of the challenges?

	Challenges	**Yes**	**No**
a.	Poor attitude of health professionals		
b.	Does not accept NHIS/Other insurance		
c.	Lack of medical equipment		
d.	Longer waiting times		
e.	Poor infrastructure		
f.	Poor quality of service		
g.	Religious or cultural beliefs		
h.	High cost of service		
i.	Other (please specify) ……..……..		

41. Have you registered with the NHIS? a. Yes b. No

42. How many members of your household are registered under the NHIS? ……

43. How do you often pay for health care services?
a. NHIS b. Private Insurance c. Cash & carry d. Others, please specify …….

44. In general, what would you say affect people's choice of healthcare in this community?

……

……

45. In your own view, what do you think must be done to ensure that people use the right healthcare in times of illness?

……

……

Thank you.

APPENDIX 2: INTERVIEW/FOCUS GROUP DISCUSSION GUIDE FOR COMMUNITY MEMBERS

1. Background of respondent(s) (age, level of education, religion, ethnicity, etc.)
2. Which healthcare facilities do community members use in this community?
3. In your view, how do you think some factors influence the choice of health facility use (e.g. type of sickness, type of person, etc.)
4. Would you say you are satisfied with the kind of healthcare you use?
5. do you find any safety issues with the type of healthcare facilities available in this community?
6. What are the challenges faced in this community in terms of healthcare usage?
7. How do you think these challenges can be addressed?
8. How do you think we can encourage people to use the right healthcare choices in this community?

APPENDIX 3: INTERVIEW GUIDE FOR HEALTHCARE PROVIDERS

1. Background of official (name, age, position, number of years worked in facility).
2. What are the services you run in this facility?
3. Who normally visits your facility?
4. Are there any challenges that prevent people from accessing your facility? Explain some of these challenges
5. Do you think people seek the right healthcare choices in this community? Please explain
6. What are some of the factors that you think affect people's choice in terms of healthcare usage?
7. How do you think people can be influenced to make the right choices in terms of healthcare?