

**ACHIEVING EQUITY IN PUBLIC SERVICE DELIVERY: THE CASE OF HEALTH  
CARE PROVISION IN ASUTIFI DISTRICT.**

**By**

**TEGERET KIPLANGAT KENNEDY**

**B.A. Economics (Hons.)**

**A Thesis submitted to the school of Graduate Studies,**

**Kwame Nkrumah University of Science and**

**Technology in Partial Fulfillment of the**

**Requirement for the Degree**

**Of**

**MASTER OF SCIENCE**

**In Development Planning and Management**

**Department of Planning**

**College of Architecture and Planning**

**APRIL 2011**

## DECLARATION

I declare that this submission is my own work towards the MSc. Development Planning and Management and that to the best of knowledge, it contains no material previously published by another person or material which has been accepted for the award of any degree of the University, except where due acknowledgement has been made in the text.

TEGERET KIPLANGAT KENNEDY .....

Student Number PG4395110

Signature

Date

Certified by:

MR. PRINCE ABOAGYE ANOKYE .....

(Supervisor)

Signature

Date

Certified by:

DR. IMORO BRAHIMAH .....

(Head of Department)

Signature

Date

## **ABSTRACT**

In order to achieve higher human development of the people, the role of equity in resource allocation is key. Achieving human development in this case means increasing the availability of and widening the distribution of life sustaining goods, raising the standard of living including high life expectancy and expanding the range of economic and social choices of the people.

With a decade already passed since the Millennium Development Goals were formulated and made the agenda of the world, its achievements going by the current trends remains a mirage. In Ghana, goals related to health sector are far from being achieved. To achieve these Millennium Development Goals, the Government of Ghana has initiated and designed 'health for all' programmes and policies. Among them is the health insurance scheme and Community Health Planning System all geared towards improving access and utilization of health service.

Achievement of health for all necessitates health equity. Health equity refers to a fair and just system that gives everyone equal opportunity to access a health service. Therefore, this research, having been built on the premise that government health policies are just and fair to every citizen sought to establish how these policies are being implemented on the ground.

This research therefore employed a case study to explore the fundamental complexities that are being undertaken by the Government in the quest of achieving equitable development. Asutifi District therefore provided a basis for understanding the issues under study. To arrive at the correct decisions, literature on the subject was reviewed to understand the concepts, role and policies of the government and also the documented work as written by other authors.

Asutifi District was stratified into the existing nine (9) Area Councils which formed the sampling areas which were then subjected to random sampling and 5 Area Councils picked as the

representative of the District. Collection of data was done through the use of closed ended questionnaires as well as interview guides used to collect data from the key informants. The analysis of data was carefully done by employing the use of Statistical Package for Social Scientists where relevant variables were cross tabulated to make a meaning out of the data.

The attainment of health equity has good prospects despite the challenges and constraints facing the districts. These include inadequate staff, poor coordination between District Health unit and District Assembly, powerful political units at the District, nonfunctional sub-district structures and slow reimbursements from the health insurance scheme. These challenges/constraints are hampering access and utilization of health care as well as its financing.

The success of health insurance is key to ensuring access and utilization by the poor but the quality of health service rendered through it needs to be improved. However, providing adequate and accessible health infrastructural facilities, ensuring 100% health insurance coverage and addressing other challenges will not solve health inequities as inadequate health personnel remains the greatest challenge to health equity and health for all. All indications are therefore showing that resource allocation in the country is yet to be equitable.

## TABLE OF CONTENTS

DECLARATION.....	ii
ABSTRACT.....	iii
LIST OF TABLES .....	viii
LIST OF FIGURES .....	ix
ABBREVIATIONS/ACRONYMS .....	x
ACKNOWLEDGEMENT.....	xii

### 1.0 CHAPTER ONE: GENERAL OVERVIEW

1.1 Background Information.....	1
1.2 Problem Statement.....	3
1.3 Objectives.....	5
1.4 Justification for the Study .....	6
1.5 Scope.....	7
1.6 Limitation.....	8
1.7 Organization of the Research Report.....	8

### 2.0 CHAPTER TWO: EMERGING ISSUES ON EQUITY AND HEALTH EQUITY

2.1 Introduction .....	9
2.2 Theories underpinning the Research .....	9
2.2.1 Justice Theory .....	9
2.2.2 Welfare Economics and Public Choice Theory .....	11
2.3 Concept of Equity .....	16
2.3.1 Role of equity in development.....	17
2.4 Equity in health .....	19
2.5 Health equity in Ghana - Policy direction and current trends .....	22
2.6 Legal institutions at the District level.....	25
2.7 Allocation of resources from the Central Government to the Districts .....	27
2.8 Accessibility and distribution of health facilities in Ghana.....	29

<b>2.9</b>	<b>Distribution of Health personnel .....</b>	<b>30</b>
<b>2.10</b>	<b>Health outcomes: .....</b>	<b>31</b>
<b>2.11</b>	<b>Measuring Equity/Inequity in Health and Health Care .....</b>	<b>33</b>
<b>2.12</b>	<b>Accessibility .....</b>	<b>35</b>
<b>2.13</b>	<b>Conceptual Framework .....</b>	<b>36</b>

### **3.0 CHAPTER THREE: RESEARCH METHODOLOGY**

<b>3.1</b>	<b>Research Design.....</b>	<b>40</b>
3.1.1	Qualitative Research Approach .....	40
3.1.2	Quantitative Research .....	40
3.1.3	Case Study Method .....	41
<b>3.2</b>	<b>Sampling techniques .....</b>	<b>42</b>
3.2.1	Selection of Case and Case Study Area .....	42
3.2.2	Selection of sampling areas .....	43
3.2.3	Sample size Determination .....	45
3.2.4	Distribution of samples .....	46
3.2.5	Selection of the samples (households and key informants) .....	47
<b>3.3</b>	<b>Data Collection: Sources and Techniques.....</b>	<b>47</b>
3.3.1	Sources of data .....	48
3.3.2	Techniques and instruments for data collection.....	48
3.3.3	Designing the questionnaire.....	49
3.3.4	Minimizing the errors in the research process .....	49
<b>3.4</b>	<b>Data processing and analysis.....</b>	<b>49</b>

### **4.0 CHAPTER FOUR: STUDY AREA PROFILE AND DISCUSSION OF SURVEY DATA RESULTS**

<b>4.1</b>	<b>Introduction .....</b>	<b>51</b>
<b>4.2</b>	<b>Ghana Profile.....</b>	<b>51</b>
<b>4.3</b>	<b>Asutifi District Profile.....</b>	<b>51</b>
<b>4.4</b>	<b>Health Sector .....</b>	<b>55</b>
4.4.1	Health Facilities in the District .....	55

4.4.2	Categories of Health Personnel in the District.....	57
<b>4.5</b>	<b>Results and Discussion of the Survey Data .....</b>	<b>57</b>
4.5.1	Demographic characteristics of the respondents.....	58
4.5.2	Economic situation.....	60
4.5.3	Institutional set up at the Districts for Allocation of resources .....	62
4.5.4	Assessing Health Equity .....	62
4.5.5	Assessing Allocational Criteria for funds within the District.....	71
4.5.6	Community Perception on Allocation of resources .....	78
4.5.7	Causes of Inequity in health.....	80
4.5.8	General perception on achievement of equity within the District .....	85
4.5.9	Key positive lessons in achieving access and high utilization of health care .....	86
 <b>5.0 CHAPTER FIVE:</b>  		
<b>SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION</b>		
<b>5.1</b>	<b>Introduction .....</b>	<b>88</b>
<b>5.2</b>	<b>Summary of Findings.....</b>	<b>88</b>
5.2.1	Institutional Setup .....	88
5.2.2	Health equity: Factors promoting and or hindering health equity .....	88
5.2.3	Equity in financing of Health care and allocation criteria of health resources .....	91
5.2.4	Causes of inequitable allocation of resources .....	92
<b>5.3</b>	<b>Key findings .....</b>	<b>93</b>
<b>5.4</b>	<b>Implications of the findings to the theories.....</b>	<b>94</b>
<b>5.5</b>	<b>Recommendations .....</b>	<b>95</b>
<b>5.6</b>	<b>Conclusion.....</b>	<b>97</b>
<b>LIST OF APPENDIXES .....</b>		<b>a</b>
<b>APPENDICES.....</b>		<b>a</b>



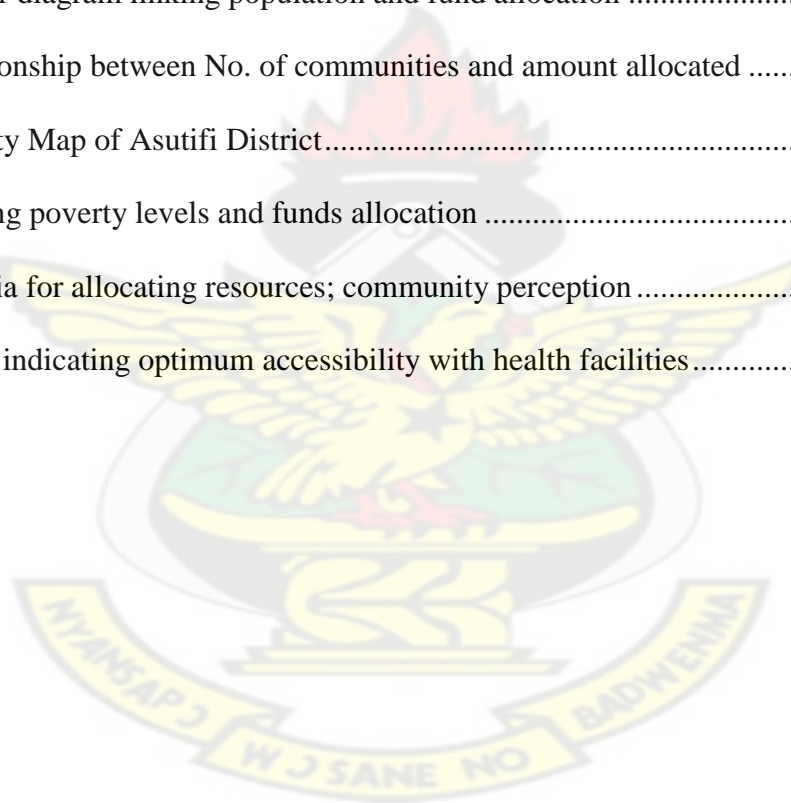
## LIST OF TABLES

Table 2.1: Ghana Planning Standards .....	21
Table 2.2: Infant and Under 5 Mortality rates by region .....	32
Table 2.3: Relating health inequities to health outcomes .....	32
Table 2.4: Linking the Concepts .....	39
Table 3.1: Choosing the Sampling Strata (Area Council) .....	44
Table 3.2: Distribution of the sample population (Households) for survey .....	46
Table 4.1 : Expenditure of Sampled Households by Type .....	54
Table 4.2 : Health Facilities by location and ownership.....	56
Table 4.3 : Categories of Health Personnel in the District .....	57
Table 4.4: Linking spatial areas and income levels .....	60
Table 4.5 : Spatial Distribution of health facilities .....	64
Table 4.6: Summary of distance and time taken to facilities by Area Council .....	65
Table 4.7: Income levels and private health expenditures .....	66
Table 4.8: Adequacy of health staff .....	69
Table 4.9: Waiting time at the health facilities .....	70
Table 4.10: Level of funding to Area council ((2006-2010) .....	72
Table 4.11: Number of communities and level of funding (2006-2010).....	74
Table 4.12: Poverty levels per Area Council .....	75
Table 4.13: Reasons for non NHIS membership .....	81
Table 4.14: General perceptions from the respondents .....	85



## LIST OF FIGURES

Figure 2.1: Physical Accessibility of health facilities (by region) .....	30
Figure 2.2: Conceptual Framework .....	37
Figure 4.1: Map of Asutifi District .....	53
Figure 4.2: Gender Composition of the respondents by Area Councils .....	58
Figure 4.3: Educational Levels with NHIS uptake of the respondents .....	59
Figure 4.4: Relationship between Income levels and uptake of NHIS .....	67
Figure 4.5: Scatter diagram linking population and fund allocation .....	72
Figure 4.6: Relationship between No. of communities and amount allocated .....	74
Figure 4.7: Poverty Map of Asutifi District.....	76
Figure 4.8: Linking poverty levels and funds allocation .....	77
Figure 4.9: Criteria for allocating resources; community perception .....	79
Figure 4.10: Map indicating optimum accessibility with health facilities.....	83



## **ABBREVIATIONS/ACRONYMS**

AFD	Africa Development Fund
CHN	Community Health Nurse
CHPS	Community Health Planning System
CWIQ	Core Welfare Indicators Questionnaire
DA	District Assembly
DACF	District Assembly Common Fund
DCE	District Chief Executive
DMTDP	District Medium Term Development Plan
DPCU	District Planning Coordinating Unit
FOAT	Functional and Organization Assessment Tool
GDHS	Ghana Demographic Health Survey
GDP	Gross Domestic Product
GH¢	Ghana Cedis
GHDR	Global Human Development Report
GHS	Ghana Health Service
GLSS	Ghana Living Standards Survey
GPRS II	Ghana Poverty Reduction Strategy II
GSGDA	Ghana Shared Growth and Development Agenda
GSS	Ghana Statistical Service
HIPC	Highly Indebted Poor Countries
HIV	Human Immuno Deficiency Virus
IGF	Internally Generated Funds
MDG	Millennium Development Goals
MLGRDE	Ministry of Local Government, Rural Development and Environment

MMDAs	Metropolitan Municipal District Assemblies
MoFEP	Ministry of Finance and Economic Planning
MoH	Ministry of Health
NHIS	National Health Insurance Scheme
PHC	Primary Health Care
TB	Tuberculosis
TBAs	Traditional Birth Attendants
UDHR	Universal Declaration of Human Rights
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission of Africa
USD	United States Dollar
WDR	World Development Report
WHO	World Health Organization



## ACKNOWLEDGEMENT

I first wish to thank our God Almighty for his utmost care, protection, guidance and mercies that he bestowed on me in furtherance of my education. He has enabled me reach this far.

My sincere thanks and gratitude go to my Supervisor, Mr Prince Aboagye Anokye, for his support, time, suggestions, efforts and positive contributions to the finalization of this work. Though faced with enormous workload and busy schedule, he still had humble time for me. I will also be grateful to Prof. Sam Afrane for his contributions. I stand tall due to your help.

I wish to extend my heartfelt gratitude to the SPRING Director Dr. Dan Inkoom and Head of Department Dr Imoro Braimah for their support and understanding. In a special way, I wish to thank District Health Director of Asutifi District Assembly for availing valuable information that formed major part of my work.

I wish to also thank SPRING Germany at Universitat Dortmund for their immense enrichment of my academic career which will shape my professional background. Many thanks go to my Employer, Ministry of Planning and National Development and in a special way to the Director, Rural Planning Directorate, Mr. Joseph Mukui and Deputy Chief Economist Mrs Beatrice Manyonge for granting me study leave and facilitating my studies.

To my dear SPRING colleagues, 2009-2011, I am grateful for their moral support. This is also not forgetting the Deutscher Akademischer Austauschdienst (DAAD); German Academic Exchange Services, for granting me a two year scholarship grant. I owe you a lot.

Lastly, my appreciation and thanks goes to my beloved wife Jecinta Ngiria Tegeret and my lovely sons for your patience, understanding and moral support. God help you.

## **1.0 CHAPTER ONE: GENERAL OVERVIEW**

### **1.1 Background Information**

Since the adoption of the Millennium Declaration by the General Assembly of the United Nations, where the eight Millennium Development Goals (MDGs) were borne and defined, the achievement of these goals remains to be a mirage in most developing countries. In view of this observation, most national governments of the developing countries have become preoccupied by the search for the financial resources to change the current situation. However, financial resources alone seem not to be the answer as new strategies are needed. (World Bank, 2004).

The approach in terms of human development as set out in the United Nations Development Programme (UNDP) since 1990 constitutes one of the major advances in the new concept of development (Bouquet, 2005). The Global Human Development Reports (GHDR) which has appeared since then insists on the need to increase income and put the idea of ‘opportunity’, for all at the forefront. Opportunity here reflects distributive justice and fairness in resource distribution (ibid). Therefore, the concept of equity must be at the heart of development strategies.

In its annual Development Report, World Bank (2006) gave the following explanation on the need for equity; “When personal and property rights are enforced only selectively, when budgetary allocations benefit mainly the politically influential, and when the distribution of public services favors the wealthy, both middle and poorer groups end up with unexploited talent. Society, as a whole, is then likely to be more inefficient and to miss out on opportunities for innovation and investment”. Therefore, achieving equity in resource allocation and having an

equitable development of a society provide a springboard for sustained economic growth. (UNDP, 1997).

Equity in health, apart from ensuring achievement of its related MDGs, ensures that a country achieve its full potential as poor people and those populations suffering from poor health benefits from the deliberate actions of government of delivering equitable distribution of resources. This leads to increased employment, increased tax revenues, and a faster rate of growth as the economy moves towards achieving its full potential. It is for these reasons that there has been a growing global concern for health equity as it is explicit that there is a strong and direct linkage between health and economic growth.

The Ghana Demographic and Health Survey (GDHS, 2008) showed a 30% reduction in the under-five mortality rate, as it declined from 111 per 1000 live births in 2003 to 80 per 1000 live births in 2008, while infant mortality rate as at 2008 stood at 50 per 1000 live births compared to 64 per 1000 live births in 2003. But a closer look at the regional figures shows that regional disparities persist and wide too. These disparities signify inequities in public service delivery.

Public services are usually considered essential in modern life such that their universal provisions are guaranteed for moral reasons; and they form fundamental human rights. Universal Declaration of Human Rights Article 21 (2) gives everyone the right of equal access to public service in his country. In developing countries, public services are much less well developed and may only be available to the wealthy middle class. One of the functions of the Government of a functioning democracy is to provide these public services that cannot be left to the private sector to provide through market mechanisms. This ensures fairness to the less privileged in the society and guarantee basic human rights of better living. In order to better provide these services, the



Government of Ghana, in 1988, provided for decentralized structures (Local Government law of 1988: PNDCL 207).

Thus, District Assemblies have an onus of ensuring that the public under its jurisdiction enjoys these services without discriminations of whatever kind. As Bouquet (2005) put it, “equity cannot only be a product of the interplay of market forces,” one of the basic roles of the District Assemblies in Ghana is to ensure that the benefits of growth and development are shared equitably and fairly.

## **1.2 Problem Statement**

Equity, as one of the tenets of good governance, is central to development and plays an important role in building of a cohesive society. While ensuring a just and cohesive society, equity makes it easier to attain higher development status. Yet, equity remains low on the policy agenda in many countries. Jones (2009) noted that tackling inequities often requires working against the interests of national elites, challenging vested interests or dominant ideologies, or speaking for people who are excluded and ignored systematically by the policy makers. Therefore, the success of solving inequities lies with the political will.

In most countries, the achievement of equity in resource distribution and as a means to achieving good governance has been elusive. This is true even where the Government policy is clear on the need to tackle inequities in public service delivery. One reason for decentralizing Government services is to improve good governance through equity in resource distribution.

Governments are essentially the providers of public goods and services and engines for the promotion of economic growth. They are also primary instruments for the redistribution of resources. Inequality in the spatial allocation of basic public services and disparities in the



endowment of infrastructure and in economic growth may spark conflicts in a society or an economy (Brosio, n.d.). This happens often in developing countries such as in Africa, where excessive disparities can threaten national unity.

UNDP (2005) acknowledge that “overcoming the structural forces that create and perpetuate extreme inequality is one of the most efficient routes for overcoming extreme poverty, enhancing the welfare of society and accelerating progress towards the MDGs”. This is because inequity can lead to deprivation of basic services like health and education.

Taking into consideration Ghana’s attainment of a low middle income status (with per capital GDP of around USD 1300<sup>1</sup>), high commitments both at international and national levels and continued and sustained economic growth averaging 5% per annum, the main “challenge continues to be extending the benefits of economic growth to all Ghanaians; particularly the poor” (AFD, 2005) as there still exists wide disparity between regions and even within regions, districts and even communities. The need for equity thus creates a hard challenge for policy-makers on how to choose and manage appropriate criteria for orientating redistribution policies and how to select the proper instruments for their implementation (Brosio, n.d. ).

As a prerequisite to the achievement of MDGs as well as fulfillment of human and constitutionally enshrined rights, equity in resource allocation becomes a necessity. Therefore, this study aimed at examining critically how equity is being achieved as a principle of good governance at the decentralized levels, in this case the District Assembly with specific reference to health. This was done by assessing equity in resource distribution with reference to access to health care, utilization of health care as well as financing health care. The paper sought to

---

<sup>1</sup> <http://www.news24.com/Africa/News/Ghana-now-middle-income-nation-20101105>

understand how public services are being redistributed within the country. In order to tackle this research problem, the following research questions were employed;

1. Which institutional structures have been put in place towards promoting equity in resource allocation at the District level?
2. How are the financial resources distributed within the District?
3. To what extent is health equity/inequities manifested within the District?
4. What are the factors promoting and or hindering health equity at the District level.
5. What is the perception of the people on government commitment to ensuring equitable society?

### **1.3 Objectives**

The overall objective of this study is to examine the extent and characteristics of equitable resource allocation in public service provision. Specifically, the research will look at the following objectives;

1. Examine the institutional structures that have been put in place towards promoting equity in resource allocation at the District level?
2. Describe the criteria used in the distribution of financial resources within the District.
3. Assess the extent to which of health equity/inequities manifest within the District.
4. Assess the factors promoting and or hindering health equity at the District level.
5. Describe the perception of the local residents on the commitment of government to achieving an equitable society.

#### **1.4 Justification for the Study**

The essence of decentralization has been to achieve good governance in the delivery of public service. Therefore, the achievement of good governance in the provision of public services through decentralized structures in this case the District Assembly is the ultimate goal of the Government. The given case study will provide insight into what is happening in other Districts with similar attributes.

The choice of Asutifi District was informed by the researcher's knowledge of the area as well as the extent of its deprivation status. Though created in 1988 out of the Colonial Ahafo Region, the district endowment remains untapped and underutilized and is classified by the Ministry of Local Government and Rural Development as deprived (DMTDP 2010-2013). Its economy is mostly agrarian and like many deprived districts, household incomes are generally low and poverty is widespread despite the fact that regional poverty levels are high. This will provide a good understanding of what is happening in other areas and thus provide a good basis for analyzing equity in resource allocation by the government.

In relation to MDGs, the World Bank (2006) perceives equity as the absence of inferior opportunities – economic, social and political by some groups who are always regarded as marginalized and deprived of their needs. Therefore, achievement of equity means people have equal opportunities in life. MDGs advocate low poverty levels, reduced maternal rates and other goals which can all be achieved through equitable development. Equitable development thus serves to bolster the achievement of MDGs and this signifies a strong positive correlation between equitable development and MDGs.

Achieving equitable development is the central role of the governments and this research is built at this context of equity in public service delivery. The achievement of equity in resource allocation is a catalyst in achieving high growth rate of a country with multiplier effects. This will occur as the economy will be operating under full employment or at full potential as there will be no idle resources in terms of the deprived poor and marginalized. Socially, a cohesive society means no one is deprived or excluded and this is attributed to the equity in the treatment of the people.

In the policy environment, the findings of this research are expected to assist the policy makers, planners, politicians, communities, civil society organizations and others who are involved in development agenda, to improve on equity as a principle of good governance in resource management and also assist in making well informed decisions. The poor and the marginalized persons or communities shall benefit from the outcome of this paper as it will provide policy recommendations on how to build a better and equitable society.

As an academic tool, the expected output of the study would enhance and contribute to the literature and body of knowledge in the field of equity and development planning. It will also stimulate further research of the subject under review, that is, equity in public service provision.

### **1.5 Scope**

This research is confined to Asutifi District in Brong Ahafo region. It looks at how the distribution of public resources in health sector is promoting or hindering equity. This was done by analyzing health equity in terms of planning standards of the country, accessibility patterns, spatial coverage, financial arrangements as well as institutional arrangements put in place at the District level.

The units of analyses for the research are the household as well as the District Assembly, communities, area councils and Ministry of Health at the district level. The research utilized data from 2006 to date to establish trends and to confirm the patterns in the data collected and analysed.

## **1.6 Limitation**

One of the major limitations was acquisition of data from some institutions and Heads of Departments. They were not ready to volunteer information that was sought. Another constraint faced was language barrier where majority of the respondents could not comprehend and communicate in English and therefore decoding the information from English to the local language and from local language to English was left to interviewers. Time factor as well as financial constraint hampered the choice of the sampling areas. Given time and financial resources, all the Area councils could have been surveyed.

## **1.7 Organization of the Research Report**

The output of the research has been organized in five chapters. The first Chapter dealt with background information of the study, research problem, objectives, scope, justification and limitations. The second chapter focused on theoretical constructs underpinning the research as well as opinions of others and explanation of concepts used. It also expounded on the various concepts and how they are interlinked. Methodology has been explained in detailed in Chapter three while Chapter four provides an in-depth analysis and presentations of the data collected from the field. Summary of findings, key findings, recommendations as well as conclusion have been placed and explained under Chapter five.

## **2.0 CHAPTER TWO: EMERGING ISSUES ON EQUITY AND HEALTH EQUITY**

### **2.1 Introduction**

This Chapter provides a review on issues concerning equity in public health service delivery. It looks at theories underpinning equity in public service delivery, various concepts and health equity in Ghana.

### **2.2 Theories underpinning the Research**

#### **2.2.1 Justice Theory**

Harvard philosopher John Rawls (1921-2002) developed the concept of justice as fairness in his now classic work “Theory of justice” of 1971. Rawls argues that self-interested rational persons behind the veil of ignorance would choose two general principles of justice to structure society in the real world. The Principle of Equal Liberty where each person has an equal right to the most extensive liberties compatible with similar liberties for all. This is egalitarian, since it distributes extensive liberties equally to all persons.

Difference Principle where social and economic inequalities should be arranged so that they are both (a) to the greatest benefit of the least advantaged persons proportionate to their contribution toward benefiting the least advantaged persons, and; (b) open to all under conditions of equality of opportunity as it distributes opportunities in an equal manner. Difference Principle means that society may undertake projects that require giving some persons more power, income, status, etc. than others, according to a set of criteria provided that the following conditions are met:

(a) Access to the privileged positions is not blocked by discrimination according to irrelevant criteria. (Rawls, 1971) and;



(b) The project will make life better off for the people who are now worst off, for example, by raising the living standards of everyone in the community and empowering the least advantaged persons to the extent consistent with their well-being.

#### Application of the theory

The theory of justice has provided the fundamental underpinnings for the concepts of equity and resource allocation for health. According to this moral viewpoint, inequalities of birth, natural endowment, and historical circumstances are undeserved. Rawls argues that all vital economic goods and services should be distributed equally, unless an unequal distribution would work to everyone's advantage, including the worst off.

This view is consistent with the concept of equity, which means "fair shares" and "fair opportunities" in the distribution of and access to resources and services. Equity, however, is not the same as equal shares or equal opportunities. Equity therefore requires that more resources and more services should be availed to the most vulnerable and needy groups. In the context of health care, equity means care according to need.

The fair opportunity rule suggests that the justice of social institutions is gauged by their capacity to counteract lack of opportunity caused by unpredictable bad luck and misfortune over which a person has no meaningful control. When those misfortunes are expressed in terms of threats to health, the call for corrective action becomes the right to health care. This argument provides a justification for a corrective redistribution of shares to many classes of disadvantaged persons, as well as a basis for numerous health policies (Encyclopedia of Public Health, 2011).



Two major contemporary views hold that there is a right to equal access to medical care and a right to a decent minimum of medical care. A more elaborate view of equal access requires that everyone should have equal access to any treatment that is available to anyone. The right to equal access therefore becomes a government obligation to meet certain basic health needs of all citizens.

Resource allocation decisions in a state determine how much should be expended and what kinds of goods will be made available in society, as well as how they are to be distributed. Such decisions determine the kinds of health care services that will exist in a society, who will get them and on what basis, who will deliver, how the burdens of financing them will be distributed, and lastly how the power and control of those services will be distributed (Encyclopedia of Public Health, 2011).

The most general question for a society committed to providing a decent minimum of health care to all citizens is how much of its budget should be allocated for health care and how much for other social goods, such as housing, education, culture, and recreation. Overall, in considering equity and resource allocation, ethics has brought considerable concern and helpful moral reasoning to the field of health care and related policies, including resource allocation.

### 2.2.2 Welfare Economics and Public Choice Theory

*“No society can surely be flourishing and happy, of which by far the greater part of members are poor and miserable”. (Adam Smith, 1776)*

In 1776, Adam Smith published “The Wealth of Nations” in which he propounded an argument that the principal human motive is self-interest, the invisible hand of competition automatically

transforms the self-interest of many into the common good and that the best government policy for the growth of a nation's wealth is that policy which governs least. In essence, Smith was advocating market economy where government interventions are limited. Smith's arguments were at the time directed against the mercantilists who advocated for strict protectionist policies and promoted active government intervention in the economy. His arguments are today advocated by the pro-Smithians who still maintain their faith in the market; who maintain that the provision of goods and services in society ought to be left to the market forces and his book outlines the basics of what is today known as classical economics.

Welfare economics has been traced back to these Smith's ideas. Welfare economics deals with measuring and promoting social welfare. It seeks to understand the role of market economy in advancing common good to the society, how the distributional equity is addressed by those in authority and whether common good and social welfare can well be addressed via market or centralized system or via voting process. Welfare economics provides the basis for judging the achievements of markets and policy makers in allocating resources.

In advancing his capability approach, Sen (1985) argued that "Economic growth cannot be sensibly treated as an end in itself. Development has to be more concerned with enhancing the lives we lead and the freedoms we enjoy" (Todaro and Smith, 2009 pp 16). Sen was of the opinion that poverty cannot be properly measured by income or even utility as is traditionally the case but "what a person is, or can be, and does or can do" (ibid).

Sen's overall message was that there is more to development than just economic growth; and that development should emphasize on the expansion of people's capabilities to achieve different valuable human functionings. Sen's capability approach raises more pertinent questions

overlooked by traditional theories: how well is the income and wealth of a society distributed among its different sections (class, race, caste, gender, and so on)? What are the social and economic opportunities available to citizens in leading a life of their choice? What are the personal and social conditions that facilitate or hinder the individual's ability to transform resources into different functioning? The answers to these questions shape our thinking and approach about a wide range of issues: the quality of life, living standards, poverty, inequality, development and gender issues.

He defined capabilities as “the freedom that a person has in terms of the choice of functionings, given his personal features and his command over commodities”. Sen’s propositions has led to the Human Development concept which places much emphasis on health and education and also on social inclusion and empowerment (Todaro and Smith, 2009 pp 16). Human development therefore has come to overtake the traditional economic growth that has been widely used over years to measure development progress.

Human development is an approach and a strategy that is borrowing heavily from the welfare economics. Human development approach integrates economic, social and political development. While it stresses two aspects: the formation of human capabilities; and the utilisation of acquired capabilities (or their functioning), there are three objectives that relates to human development;

1. Increase the availability of and widen the distribution of basic life-sustaining goods.
2. Raise the level of living standards including better education, higher incomes among others, which serves not only to enhance material well being but also to enhance greater self esteem.

### 3. Expand the range of economic and social choices available.

It also rests on four essential pillars: equality, productivity, empowerment and sustainability. Human development is both a goal and a process of enlarging people's capabilities, freedom and choices resulting in long and healthy lives, access to knowledge and the power to use it, decent standards of living and active community participation and autonomy in personal decision-making (UNDP 2007). Related to welfare economics is Public Choice Theory which was developed in 1962 by James Buchanan, (winner of the Nobel Prize in Economic Science, 1986, for work in Public Choice) and Gordon Tullock in their book, *Calculus of Consent*, published in 1962.

Public choice theory discards the notion that people in the public sector seek to maximize net benefits to society as a whole. Rather, it assumes that each participant in the public sector seeks to maximize his or her own utility; whether as voters, politicians, or bureaucrats, people seek solutions consistent with their self-interest. In other words, politicians and bureaucrats pursue their own agendas, not those of "the public," just as people in business do. Therefore, the government policy is often driven by individual interests of politicians, powerful forces (rent seekers) and the bureaucrats. This theory reminds us that often politicians and bureaucrats usually have hard time in the course of serving the public interest. This is because public is a group of individuals with a great variety of different interests and needs and just a few common ones.

Niskanen (1973) noted that "It is the behaviour of public sector bureaucrats which is at the heart of public choice theory. While they are supposed to work in the public interest, putting into practice the policies of government as efficiently and effectively as possible, public choice

theorists see bureaucrats as self-interested utility-maximizers, motivated by such factors as: salary, prerequisites of the office, public reputation, power, patronage and the ease of managing the bureau.”

#### Application of Welfare Economics and Public choice theory

The current dispensation of development as advocated and shaped by welfare economics continues to get wide support for its radical approach in viewing development. Its emphasis on growth with distribution that helps to ensure that equity in society is achieved in all spheres. By using standards of living like access to basic services, literacy and life expectancy at birth, it underlines the commitment of stressing the need for equity too. It is borne out of realization that development that excludes the majority and depriving them of their freedom as well as opportunities and rights is not beneficial to the society. This will provide a basis to understand well the concept of equity or distributive growth.

Often, the decision making in Government cycles or institutions like the District Assemblies is often riddled with uncertainties as to how certain decisions were reached. The answer to this lies in the Public Choice Theory which informs us that the bureaucrats and politicians act in a way to satisfy own interests as opposed to public interest that cannot be reconciled. Public interest here is difficult to reconcile due to different needs of the individuals who are also acting in a rational way to maximize their selfish ends through rent seeking behavior and threats to the politicians through voting power.



### 2.3 Concept of Equity

Various definitions have been put forward to describe the term equity. It is a term that carries “different interpretations, varying by country and academic discipline.” (World Bank, 2006). Equity and equality has always been “used interchangeably although, in fact, they mean quite distinctive things” (Poteete 2004). Most of the literature though uses equality to mean the same thing. Social scientists and economists use these terms more frequently. They tend to use inequality more due to the difficulty in setting the agreeable standard or norm for inequity (WHO, 2000). World Bank in World Development Report of 2006 defined equity in terms of two basic principles;

1. Equal opportunity – where the outcome of a person’s life, in its many dimensions, should reflect mostly his or her efforts and talents, not his or her background. Therefore, predetermined circumstances (gender, race, place of birth, family origins) and the social groups a person is born into should not help determine whether people succeed economically, socially, and politically.
2. Avoidance of absolute deprivation – as a matter of human right, out of compassion and to preserve the dignity of human kind, “a society may decide to intervene to protect the livelihoods of its neediest members (below some absolute threshold of need) even if the equal opportunity principle has been upheld.” This is attributed to the fact that it is almost impossible for everyone to achieve all the basic needs in life may be due to sheer bad luck or a person’s own failings. A society therefore, decides to uplift the standards of living even if they had “enjoyed their fair share of the opportunity pie, but things did not work right for them.”

Poteete (2004) simply argued that Equity refers to whether something is fair, just, or impartial. Equality means sameness. Equity might entail equality, but not necessarily. According to World Health Organization (2000), Equity is an ethical concept that eludes precise definition. Its synonyms are social justice and fairness, which again, could be taken to mean differently by people at different times. According to WHO, equity usually deals with a predetermined standard or norm, which is considered “just” or “fair”.

**Equality:** Equality does not take into account whether the existing disparity/gap/difference is “fair or just”. Simply, inequity is unfair or unjust inequality. In practice, the terms, equity and equality are used interchangeably. (WHO 2000)

#### 2.3.1 Role of equity in development

According to 2005 Human Development Report (UNDP) the following reasons underpin and explain why equity is an important concept that is worth pursuing;

As a tenet of social justice and morality, equity, which is characterized by deprivation, is fundamental to most societies. Adam Smith (1776) argued that no society can express happiness when most of its members are poor and miserable. He also explained that all members of society should live a life of dignity by having income that is sufficient to appear in public without shame (UNDP, 2005). Most religious groups advance equity as a moral duty for their followers as World Bank (2005) rightfully stated that “the core moral and ethical teachings of the world’s leading religions include a concern for equity”. The need for Equity is also an international obligation under the international system of human rights especially as advocated under the UN Universal Declaration of Human rights.

Equity requires that the poor should be put first as a priority. This is the need for distributive growth where governments “accept in principle that more weight should be given to



improvements in the well-being of the poor and disadvantaged than to the rich and highly privileged” (UNDP, 2005). UNDP went on to draw a simple analogy that an extra dollar handed to a poor farmer in a rural area generates greater welfare than the same amount to a millionaire. Therefore, for pro-poor policies like the MDGs and other state propelled ones to succeed, there is a need to emphasize on the distribution aspects which in this case is the equity in resource distribution for equitable development.

Politics and equity also have direct correlations so that extreme inequities can weaken political legitimacy and corrode institutions. This is because disadvantaged groups like the poor, marginalized people, women, rural populations, indigenous communities and others are disadvantaged because they have a weak political voice (UNDP, 2005). UNDP (2005) further concludes that “where political institutions are seen as vehicles for perpetuating unjust inequalities or advancing the interests of elites, that undermines the development of democracy and creates conditions for state breakdown.” This is the reason behind anarchies and instabilities in most developing countries where the poor and the disadvantaged feel that the ruling political class is undermining their rights. World Bank (2005) also agrees that “to prosper, a society must create incentives for the vast majority of the population to invest and innovate. But such an equitable set of economic institutions can emerge only when the distribution of power is not highly unequal and in situations in which there are constraints on the exercise of power by officeholders.”

It has been postulated that equity is good for growth in that “Extreme inequality is not just bad for poverty reduction—it is also bad for growth” (UNDP, 2005). By depriving them of the basic services and goods, the poor are also denied opportunities to contribute to growth and it therefore follows logically that “denying half the population access to education opportunities is not just a

violation of human rights [but] is also bad for growth.” (ibid). This is also true since inequity will prevent the poor or the deprived from maximizing their potentials and thus affecting the economy in general as “with imperfect markets, inequalities in power and wealth translate into unequal opportunities, leading to wasted productive potential and to an inefficient allocation of resources” (World Bank 2005), thus having a negative effect on the economy.

## **2.4 Equity in health**

*“Currently there is increasing interest and debate about the need to promote equity in the health system, so that the poor and vulnerable groups, who tend to have the highest disease burden and the least ability to pay for health care services, are adequately catered for. Of particular interest are the geographical and financial inequities in the health system and the extent that those who live in rural areas are often discriminated against in terms of health services provision.”* (Gyapong, et al, 2007)

The World Health Organization has defined “equity in health” as “Minimizing avoidable disparities in health and its determinants – including but not limited to health care – between groups of people who have different levels of underlying social attributes”. Moreover, WHO’s definition of “equity in health” encompasses two different aspects;

- Equity in health (health status) means the attainment by all citizens of the highest possible level of physical, psychological and social well-being.
- Equity in health care means that health care resources are allocated according to need; health care is provided in response to legitimate expectations of the people; health services are received according to need regardless of the prevailing social attributes, and payment for health services is made according to the ability to pay.

Therefore, WHO provides three perspectives of equity where first, equity in health mainly focuses on the health of the vulnerable population in absolute rather than relative terms and thus a policy or programme aimed at improving the health of the most vulnerable would be seen as being equitable. Secondly, no one in the community should be left out in that, a health policy which does not provide health care to certain population groups, e.g. people living in thinly-settled, remote mountainous, island or desert areas, would be inequitable (WHO, 2000). Lastly, equity measurement identifies the relative and absolute gaps of health state. Thus a policy that improves the health of the best off more than anyone else would not be considered equitable.

The following can be argued as reasons for advocating health equity in a society and why states have a national concern for health equity.

- Health inequities are touted as avoidable inequalities that are unfair and unjust in access to and utilization of health services by population subgroups within a country. This is considered unfair and unjust and ethically unacceptable since “they do not emerge as the direct consequence of the deliberate choices that individuals made.” (UNECA, 2009).
- Health inequities have a negative impact on the health outcomes of those excluded thus negatively affecting attainment of the MDG targets on health.
- Lack of equity violates the basic tenets of social justice for everyone to have equal opportunity to be healthy.
- Health inequities as a major form of social exclusion can result in intergenerational deprivation of access to social services.
- Health equity is good for growth, poverty reduction and overall development that is inclusive. There are economic gains associated with good health for poor people. “Poor health status of poor people and other groups tends to exclude them from active participation

in the economy. The economy performs below its potential as a result. But improvements in the health of the poor through deliberate actions of government could result in increased employment, increased tax revenues, and a faster rate of growth as the economy moves towards full employment of available resources” (UNECA, 2009)

As equity is a concept attracting different interpretation from different perspectives, this research will view health equity as a just and fair system that gives everyone equal opportunity to access a health service. To make it more valid and reliable to the national context, the following national planning standards of Ghana will be used to gauge the standards at the District level;

**Table 2.1: Ghana Planning Standards**

Status	Recommended personnel levels	Sphere of Influence	Population To Be Served		Number Of Beds	
			Min	Max	Min	Max
<b>District Hospital</b>	District medical officer District public health nurse District communic. disease officer Senior medical officer District health superintendent	Whole district	15000	30000	200	<b>250</b>
<b>Urban Health Center or Poly Clinic</b>	Medical assistant, Comm. health nurse (midwife) Health inspection assistant Field technician (communicable disease control)	Urban neighbourhood	10000	15000	-	<b>5</b>
<b>Health Center</b>	Medical assistant, Comm. health nurse (midwife) Health inspection assistant Field technician (communicable disease control)	10 miles radius from sub-district	5000	10000	12	<b>15</b>
<b>Health Post</b>	Community Health worker Community Clinic Attendant Traditional Birth Attendant	Village	-	5000	-	-
<b>Clinics</b>	Community Health worker Community Clinic Attendant Traditional Birth Attendant	In urban and rural neighbourhood	-	5000	-	-
<b>The recommended Doctor to population ratio should be 1: 9000 while for the nurses is 1:500</b>						

*Source: Adopted from Land Use Planning and Management Project, 2010*

## **2.5 Health equity in Ghana - Policy direction and current trends**

The first Article of the Universal Declaration of Human Rights (UDHR) states that: ‘All human beings are born free and equal in dignity and rights’ while Article 21 (2) gives everyone the right of equal access to public service in her/his country. The UDHR states, in Article 2, that “Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.” As a signatory, the onus is on the Government of Ghana to ensure that these dreams of the United Nations, are realized by the citizenry.

Efforts to improve health equity were initiated by the World Health Organization (WHO) in the 1970s when it launched the Health-for-all programme that culminated into Alma-Ata declaration of 1978 where WHO member states committed themselves to achieving health for all by the year 2000 (UNECA, 2009). This Declaration emphasized the importance of equity and encouraged each country to formulate national policies and strategies for health.

These commitments of the Alma-Ata Declaration were renewed by the World Health Assembly in 1998 in the “World Health Declaration” which affirmed the need to give effect to the “Health for-All policy for the twenty first century” through the implementation of relevant regional and national policies (UNECA, 2009). This 21<sup>st</sup> century policy called for the reduction of social and economic inequities in improving the health of the whole population with specific attention to those most in need, burdened by ill-health, receiving inadequate services for health or affected by poverty.



In April 2001, African leaders came up with Abuja declaration in which they committed themselves and pledged to ensure that at least 15 per cent of annual budget are allocated for the improvement of the health (UNECA 2011). African Governments also at the 3rd Ordinary Session of the Ministers of Health of the African Union held in April 2007 in Johannesburg, South Africa reaffirmed the commitment of African Governments on the importance of eliminating health inequities by improving and promoting greater access to health for all particularly for the poor and vulnerable groups in society.

In September 2000, Ghana, along with 189 UN member countries adopted the Millennium declaration that laid out the vision for a world of common values and renewed determination to achieve peace and decent standards of living for every man, woman and child. The eight MDGs derived from the Millennium Declaration set time-bound and quantifiable indicators and targets aimed at, among others, reducing child mortality, improving maternal health, combating and reversing the trends of HIV/AIDS, malaria and other diseases by 2015. These Goals have, however, turned to be a difficult task to achieve and researchers are now calling on Governments to put up measures to ensure that equitable development in all aspects of the MDGs are adhered so as to attain them.

To achieve all these commitments, the Government of Ghana has put on several measures to achieve health equity as deliberated below:

Following successful Poverty Reduction Strategy Paper that focused on poverty reduction that resulted in Highly Indebted Poor Countries (HIPC) relief funds, these relief funds (HIPC) were specifically allocated to the health sector using an equity resource allocation formula that focuses on the four poorest regions of the country and that offers free delivery services for mothers in

these regions, training human resources for the poorest areas of the country, a health insurance initiative for the poor (Buckle, 2003.)

The health sector in Ghana is organized along a five-tier system: national, regional, district, sub-district and community levels. The Minister is the head of the health sector. The Ministry of Health (MoH) is responsible for policy formulation, planning, and donor coordination and resource mobilisation. The Ghana Health Service (GHS) under the authority of a Director-General is responsible for service delivery.

The Government's long-term vision for growth and development was formulated in 1996 and called "Ghana Vision 2020". This Vision is aimed at propelling Ghana from a low-income country, to a middle-income country by 2020. Among other priority areas, fair distribution of the benefits of development featured in the Vision document as an area for priority attention in the medium and long term plans. This underlines the country's commitment of ensuring equity in resource distribution.

In the medium term plans of the country, that supports long term Vision 2020, health sector under Human Resource Development was one of the three key pillars of the Ghana Growth and Poverty Reduction Strategy II (GPRS II) which came to an end in 2009 and currently, it has been put under the same theme in the Ghana Shared Growth and Development Agenda (GSGDA 2010-2013). GPRS II emphasized the bridging inequity gaps in access to quality health and nutrition services; ensuring sustainable financing arrangements that protect the poor and enhancing efficiency in service delivery (UNDP, 2007). The right to basic social services like health care is also recognized in the current GSGDA. A five-year health sector strategy of 2002-



2006 too incorporated improved access to health care. Access to health care is designed to address equity issues through improvement of accessibility and increased financial support.

The current Mission Statement of Ministry of Health is “to contribute to socio-economic development and wealth creation by promoting health and vitality, ensuring access to quality health, population and nutrition services for all people living in Ghana and promoting the development of the local health industry”. By boosting access to health care facilities, fairness and distributive justice is achieved in the society (GSDA, 2010-2013).

These national goals and scenarios have been replicated at the district level. Emphasis too has been placed on the need to ensure equitable development through the provision of more facilities. The overall goal of the current DMTDP (2010-2013) is to improve general living conditions in the district through a diversified district economy, equitable distribution of social services, public-private sector partnership and employment generation activities. Under the health subsector, provision of adequate health facilities is one of the strategies to ensure equitable distribution of social services.

Therefore, it will be interesting to see how these policies, commitments and plans are being implemented at the local level by authorities with intent of achieving the ultimate goal of “Health for All” as a way forward to achieving equitable development in the society.

## **2.6 Legal institutions at the District level**

The Local Government Act (2003) established a general assembly which comprises technical departments as well as local Assembly members (appointed and elected). The DA have legislative, deliberative and executive functions and are responsible for the overall development of the District. This Act also establishes decentralized units, in this case Area councils and unit

committees, to deepen decentralization. These substructures are supposed to assist the DA discharge its mandate of development as well as for financial mobilization. One of the key functions of the Area Council is to deliberate and prioritize community issues and submit them to the General Assembly through the DPCU.

Moreover, an Executive Committee was established to assist the DA to execute and administer its functions with its chair as the DCE. Among other functions, Executive Committee coordinates plans and programs of the subcommittees, implements resolution of the DA, oversees the administration of the District, develops and executes approved plans of the unit and area councils as well as recommend to the DA economic, social, spatial and human settlement policies relating to the development of the district. It has the following sub-committees to execute its mandate;

- Development planning subcommittee;
- Social service subcommittee;
- Works subcommittee;
- Justice, security subcommittee and
- Finance and administration subcommittee.

The heads of the departments are required to attend the meetings of these subcommittees to give technical advice only but do not have a voting right. On financial control, the DA is responsible for the preparation, administration and control of budgetary allocations of the departments in the DA. To perform the function related to development planning, a DPCU was established for each DA. DPCU is made up of technical staff who are in charge of technical issues relating to development planning.

In the health sector, social service subcommittee assists in preparing annual sector plans, supervision of health programmes and hygiene promotion. These are done in conjunction with the District Health Management Team who provides technical inputs.

## **2.7 Allocation of resources from the Central Government to the Districts**

There are two main sources of revenue from the central government to the local authorities (District Assemblies).

1. District Assemblies Common Fund (DACF)
2. District Development Fund (DDF)

DACF- Each year, the Government of Ghana set aside 10% of its ordinary revenue for this fund to accelerate development at the decentralized levels, in this case the Districts (Tsekpo and Jebuni, 2004). The criteria for allocating DACF to the Districts are primarily;

1. *Need Factor*- To address imbalance in development and infrastructure among the Assemblies. The level of need is determined from the GDP per capita. Four indicators are usually used;
  - Health indicator focusing on the level of health services enjoyed by an Assembly where number of health facilities found in the District, doctor to population ratio as well as nurse to population ratio are considered in allocating funds.
  - Education indicator in which the number of facilities and teacher pupil ratio in the District are key factors being considered.
  - Water coverage indicator where the percentage of population with access to clean water is considered.

- Tarred road indicator where tarred roads in the Assembly as a ratio of the total national road network is taken into account.
2. *Equalization Factor* – is aimed at ensuring that Assemblies have minimum allocation from the fund.
  3. *Responsiveness Factor* – is a rewarding factor for Assemblies that have done well in revenue collection in terms of per capita revenue collected.
  4. *Service pressure factor* – serves to compensate for population pressure on facilities.
  5. *Poverty status factor* – refers to a poverty status of assemblies taking into account indicators such as number of schools requiring major rehabilitation.

From this DACF, 10% of the Assemblies fund is reserved for emergency situations, allocation to Regional Coordinating Councils and Members of Parliament. The distribution pattern however does change each year according to the DACF administrator and subject to approval of Parliament.

***District Development Fund-*** This consists of a pool of resources from the various development partners. Metropolitan, Municipal, Districts Assemblies (MMDAs) are assessed using the Functional and Organization Assessment Tool (FOAT). The MMDAs must meet some minimum conditions under Finance and Administration, Development Planning and procurement procedures and capacity building. The Assemblies which meet these criteria are given some money to implement development projects. Assemblies which fail are given some amount only for capacity building.

#### ***Funds allocation in the District***

In order to improve governance in decentralized funds, a composite budget, which is the total of all budgets put together, is prepared by the DA. This is to ensure effective coordination and

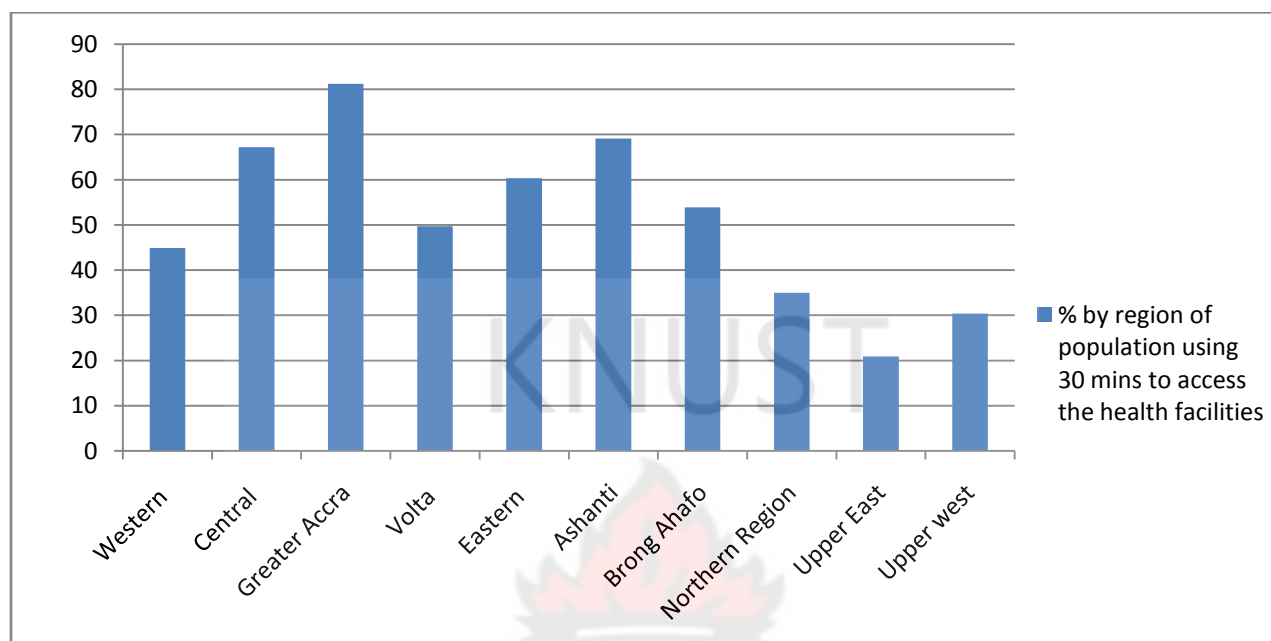
harmonization of resources from different sectors. This helps in avoiding duplication of activities and achieving cost effectiveness.

In allocating the funds at the District level, the community needs and priorities are taken into consideration. In addition, the population and size of the community is used in distribution of public services (DMTDP, 2010-2013). Further, most funds coming into the District have already been assigned to various sectors and it is the onus of the DA to distribute them accordingly.

## **2.8 Accessibility and distribution of health facilities in Ghana**

According to the Core Welfare Indicators Questionnaire (CWIQ II, 2003), 57.7 percent of Ghanaians have access to a health facility within 30 minutes of their places of residence (GSS, 2003). This access is linked to the distribution of health facilities in the system. Urban localities generally enjoy good access to health compared to rural areas as urban areas tend to have a relatively better concentration of health facilities and better road networks as well as other factors that enhance access. Access to health facilities in the rural areas, therefore, becomes a major challenge for rural inhabitants. Among the regions, Greater Accra and Ashanti enjoy relatively better access to health facilities having almost half of the total number of health facilities between them. The Upper East and Upper West Regions enjoy the least (UNDP, 2007). Thus, in terms of orthodox health care in Ghana, a sizeable proportion of rural areas and northern Ghana generally are excluded.

**Figure 2.1: Physical Accessibility of health facilities (by region)**



Source: GSS, 2003

The Ghana Statistical Service's definition of access to health in terms of time taken to reach the health facilities does not take into account the cost of health service and the means of transport to the facility. A person can live near a facility and still suffer from exclusion if they cannot, or do not, have financial access to health services. However, in Ghana, the national health insurance scheme is a response to the problem of financial access.

## **2.9 Distribution of Health personnel**

A report produced by MOH (2010) indicates that in 2009, there was an improvement in equitable distribution of nurses among Ghana's 10 regions. Upper West Region had the highest number of nurses per regional population. Ashanti Region continued to have the lowest number of nurses per population, but saw a marked increase in total number of nurses in 2009 (by 26%). The doctor/population ratio increased by 13% from 2008 to 2009. The highest relative increase in number of doctors was recorded in Northern and Brong-Ahafo Regions, but Northern Region is



still the region with lowest number of doctors per population. With a total of 895 doctors, 43% of Ghana's doctors were practicing in Greater Accra Region. The three Northern Regions have a total of 82 doctors, which accounts for less than 4% of doctors in the nation. Nationally, the nurse to patient population ratio improved from 1:1079 in 2008 to 1:971 in 2009.

The case of nurses is similar to Doctors' in that there has also been an increase in the nurse population ratio in the country. The improvement in the distribution of nurses across all the regions has been attributed to the use of human resource quota system coupled with the establishment of nursing training schools in all the regions. This has improved population access to the nurses (GHS, 2009).

#### **2.10 Health outcomes:**

Notable improvements that have been recorded include the rise in delivery rate nationally from 42.2% in 2008 to 45.6% in 2009. Institutional maternal mortality ratio also fell from 199.7/100,000 in 2008 to 169.9/100,000 in 2009 (GHS Annual Report, 2009). All these data points to the improved accessibility to health service provision by the population which is a pointer to improved health equity. However, this is a national outcome. A look at the region based figures depicts worsening situations in some of the marginalized areas especially the Northern regions. Adverse inequities in terms of access to health care, distribution of health personnel and financial allocation breed inequitable health outcomes. These inequities bring differentials in the health outcomes as shown in Table 2.3 below;

**Table 2.2: Infant and Under 5 Mortality rates by region**

Region	Infant Mortality Rate (per 1000 live births)					Under Five Mortality Rate (per 1000 live births)				
	1988	1993	1998	2003	2008	1988	1993	1998	2003	2008
Western	76.9	76.3	68.0	66.0	51.0	151.2	131.8	109.7	109.0	65.0
Central	138.3	71.6	83.8	50.0	73.0	208.2	128.0	142.1	90.0	108.0
Greater Accra	57.7	58.4	41.4	45.0	36.0	103.8	100.2	62.0	75.0	50.0
Volta	73.5	77.8	53.8	75.0	37.0	132.7	116.4	98.0	113.0	50.0
Eastern	70.1	55.9	50.2	64.0	53.0	138.1	93.2	89.1	95.0	81.0
Ashanti	69.8	65.2	41.9	80.0	54.0	144.2	97.6	78.2	116.0	80.0
Brong Ahafo	65.0	48.7	77.3	58.0	37.0	122.6	94.6	128.7	91.0	76.0
Northern	103.1	113.7	70.1	69.0	70.0	221.8	237.0	171.3	154.0	137.0
Upper East	103.1	105.0	81.5	33.0	46.0	221.8	180.1	155.3	79.0	78.0
Upper West	103.1	84.5	70.6	105.0	97.0	221.8	187.7	155.6	208.0	142.0
<b>National</b>	<b>77</b>	<b>66</b>	<b>57</b>	<b>64</b>	<b>50</b>	<b>155</b>	<b>119</b>	<b>108</b>	<b>111</b>	<b>80</b>

*Source: Ghana Health Demographic Survey, 2008.*

The above information has been used together with differential in access patterns and doctor to population ratio to see how they are correlated. Taking the region with the highest and lowest percentage of people with access to health services, Table 2.3 shows how health outcomes is highly dependent on accessibility as well as Doctor to population ratio. The outcome here is reflected by IMR.

**Table 2.3: Relating health inequities to health outcomes**

Region	Doctor to population ratio (2008)	% of people accessing health facilities within 30 Mins (2003)	Health outcomes – Infant Mortality Rates Per 1000 live births (2008)
<b>Upper East</b>	33,475	22	46
<b>Greater Accra</b>	4,959	82	36

*Source: Ghana Health Demographic Survey, 2008*

Table 2.3 above shows a positive correlation between the health inequities in terms of access to health facilities together with the number of health personnel and health outcomes in terms of infant mortality rates. Upper east depicts a higher IMR of 46 which is attributable to low access by the population to health facilities and fewer doctors to meet the demand of the region. The picture in Accra region is that of high number of doctors with higher population accessing health facilities has resulted in the reduction of IMR.

### **2.11 Measuring Equity/Inequity in Health and Health Care**

The world over, and as championed by World Health Organization, equity is an important aspect for measuring goals and progress made in the health system (Braveman, 2006). Different countries use and adopt different strategies to achieve health equity. The Economic Commission for Africa (2009) gave the following as notable ways used by different countries like Kenya, Cameroon, Ghana, South Africa, Zambia, Egypt, Senegal and others to achieve health equity;

1. Equity in access to health care services through expansion of the health services to remote areas eg by putting up more clinics; basic or essential health package for improved coverage and expansion of community level health services eg. community health worker scheme
2. Equity in utilization of health care through means like targeted fee exemptions at public facilities; free health services; expansion of National Insurance and promotion of community based health insurance.
3. Equity in resource allocation especially through financial decentralization, improved health resource allocation for improved equity (using inclusive resource allocation formula to address regional disparities).

Various studies have been undertaken to assess the level of equity in public services delivery and more so the health sector. Most of the writings done by the other researchers used mainly health outcomes like mortality rates, life expectancy and other health indicators to measure equity between different areas. However, the use of accessibility, utilization of health care and financial allocation as done by the Government will be of utmost importance. It is also worthy to note that these researches only concentrated on the disparities between the countries, regions and districts and not within the districts. Therefore, this research will look at the equity as it is reflected within the districts.

As has been described earlier, health inequities are avoidable group health difference resulting from policy decisions as implemented by governments. Ensuring health equity entails driving health differentials down to the lowest standards by creating equal opportunities for health. Therefore, the role of the Government as an agent of social change is consistent with health equity concept. Hence, this research will look at conscious efforts undertaken by the Government in ensuring health equity for all regardless of any social or economic stratification. Specifically, the research will use the following data in achieving the stated objectives;

1. Human resource distribution (according to social and health needs – sickness prevalence)
2. Financial resource allocations and distribution
3. Distribution of health facilities
4. Quality of the health services

## 2.12 Accessibility

Access is the ability of an individual to reach and obtain a service (Bannerman et al, 2002) while accessibility refers to ease with which (health) services are reached. Bannerman et al (2002) gave the following as reasons that may affect accessibility;

- Geographical - where the distance to be covered as well as travel cost and time to and from the facility. These may well be determined by the road infrastructure which can make the place inaccessible or highly accessible in terms of time taken and cost.
- Ability to pay for service (affordability) - the presence of a health facility or service cannot guarantee accessibility to the services being offered. The cost of the services being offered as well as the economic situation (poverty levels) influence the utilization of the health services.
- Organisational – how well the services have been organized like the official opening hours of the health facility can inconvenience the population from visiting the facility. This also applies to waiting times before being served. The longer the time to be served discourages the patients and may even opt to go to a far health facility that is more user friendly.
- Cultural – as this is a service being offered by health personnel who are not necessarily hailing from the community of service, language barrier/effective communication and cultural differences may hamper the provision of services.
- Physical – facilities which are not user friendlier like being sited in a crime prone area, without effective directions to users, and most of the times with facilities that are not gender sensitive or physically challenged can turn away patients thus hampering accessibility.

Apart from the use of accessibility, Doctor/nurse population ratio, health insurance coverage and population coverage of the health facilities provided an insight of how fair the system is.

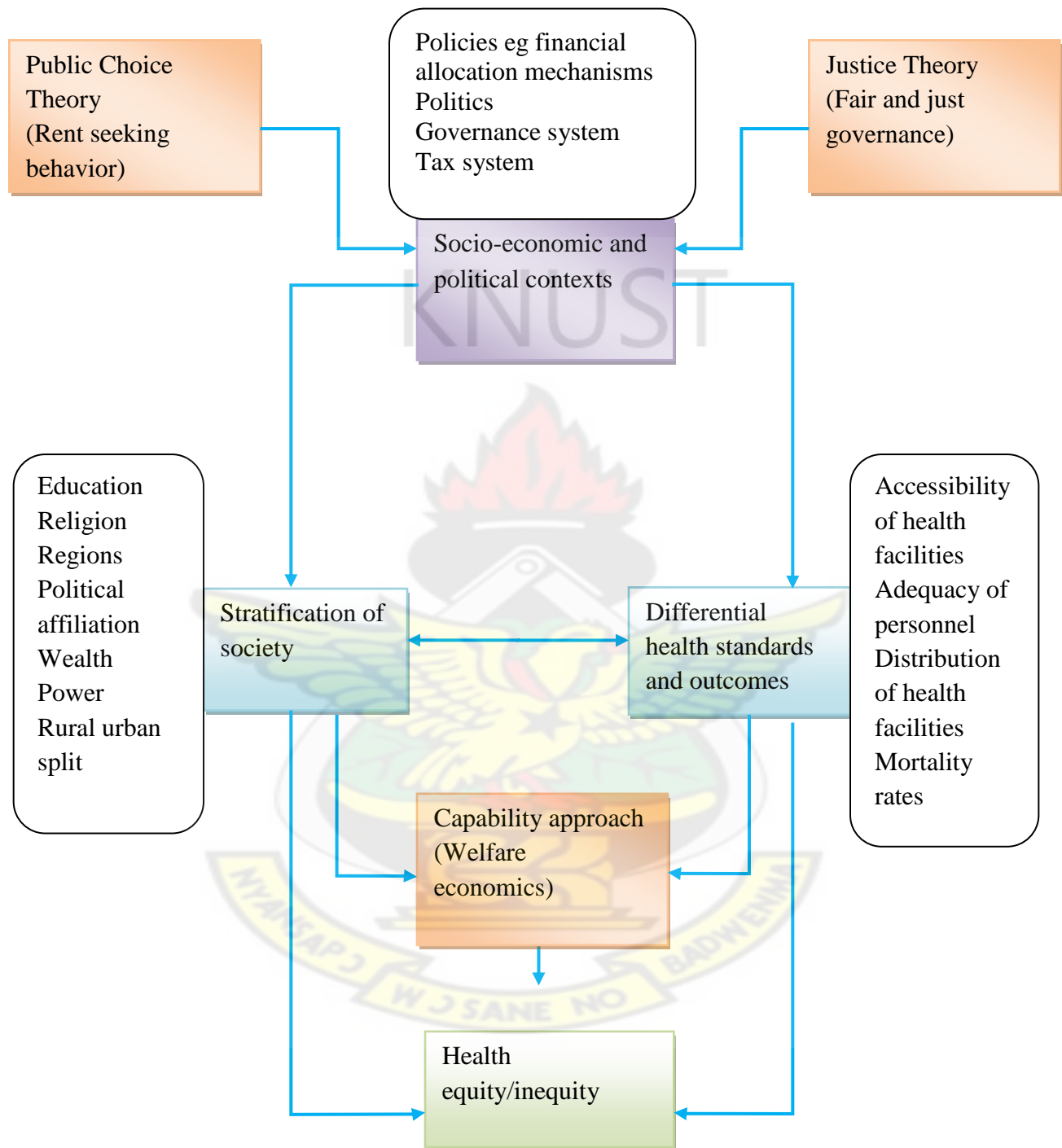
On public resources allocation, the research will assess how the funds have been distributed in the last five years to observe if there is a logical pattern or a criteria being followed in distributing them to various area councils and communities. The importance of public finance to health systems cannot be over emphasized as “ how health systems are financed largely determines whether people can obtain needed health care” (Carrin et al, 2007). Also, presence of an adequate health financing system is essential in the pursuit of universal coverage (WHO, 2000).

### **2.13 Conceptual Framework**

In Figure 2.2 below, the socio-economic and political issues here reflects Government policies, society's culture, demographic characteristics like population size, governance system, financial modalities, and economic situation of a country, system or an economy. This paper was interested in the conscious effort of the Government in effecting changes to bring down inequities in health through laid down procedures and policies. These issues are bound to have a great impact on the health standards and outcomes and therefore, different regions and areas will have different health outcomes and standards. These differentials are reflected by the accessibility to health facilities, distribution of health staffs as well as health facilities, prevalence of diseases, mortality rates, life expectancy rate and quality of health facilities. These differences therefore suggest inequities in health.



**Figure 2.2: Conceptual Framework**



*Source: Author's construct, 2011*

The two theories affect the socio-economic issues. Justice theory, if taken into account will ensure that every decision made at the highest level will create a fair and just society that is equitable. On the other hand, through Public choice theory, the role of bureaucrats, politicians and the powerful individuals will be to engage the government in rent seeking behaviors with no public interest at heart. This will affect the decision making and will result in inequities.

Another effect is stratification of society into different categories. A society can be stratified according to economic statuses; in terms of the poor and the wealthy, urbanization; rural and urban, deprivation; marginalized and the powerful, according to education system/levels; literates and illiterates, according to tribes and clans and also to political inclinations.

The stratification of society can as well have an effect on the health standards and outcomes and the opposite is also true. These two effects will in the long run be manifested through either health equity or health inequities. The Government can breed inequities if they are to amass public resources in a skewed manner such that the rich, the politically correct, the mighty and powerful in the society, the well educated, the urbanized and the correct tribes/clan are favoured.

In addition, stratification of society can affect the choices that one makes in life and therefore a person will have no freedom. This leads into social exclusion and hinders individual's ability to transform resources into meaningful functioning. Thus economic opportunities available are to be benefited by a few. Thus differentials in health outcomes and stratification of society into different classes will curtail the capabilities of some members of the society from achieving their life choices and these worsen the inequities in the society. The above concepts, which were used as a guide to the research, were interlinked as shown in Table 2.5 below:

**Table 2.4: Linking the Concepts**

<b>Equity goals</b>	<b>Barriers to equity</b>	<b>Interventions towards equity</b>
Category 1. Equity in access to health care	Physical (distance, topography). Lack of education Lack of information Social and cultural barriers Organizational (limited schedules at health facilities). Behavior of health provider (providers not acquainted with local culture and language; discriminatory provider behavior against the poor, or the marginalised).	Expansion of services Proper distribution of facilities Close-to-client services eg. through provision of services through mobile teams or community health workers. Provision of transport subsidies, improvements in transport systems Basic education and health education Communication and information dissemination strategies Extending opening hours of health care facilities. Service delivery by providers who speak local languages Interventions to change discriminatory attitudes of health service providers.
Category 2. Equity in utilization of health care	Financial: User-fees in public facilities High cost of services in private clinics	Targeted fee exemptions at public facilities. Expansion of medical insurance. Prepayment schemes
Category 3. Equity in resource allocation (Financial and Human Resources)	Tendency to favor urban centres and the Rich or influential or other forms of discriminatory tendencies	Financial decentralization Inclusive formulae for resource allocation

**Source: Adapted from International Society for equity in health (2006).**

### **3.0 CHAPTER THREE: RESEARCH METHODOLOGY**

#### **3.1 Research Design**

This study, by virtue of its content and methods employed in data analysis, employed both qualitative and quantitative approaches to research. In what Trochim (2006) calls the “mixed method approach”, or “triangulation” by some other authors, this research combined both approaches in order to find more meaning, comprehensiveness and value to the study. This research also used case study to achieve its objectives.

##### **3.1.1 Qualitative Research Approach**

For the purpose of this study, the qualitative research approach provided an in-depth understanding of the effects and causes of inequity in services provision as well as the perception of the people as far as Government mode of public delivery. Mack, et.al. (2005:1) argue that qualitative research is especially effective in its ability to provide complex textual descriptions of how people experience a given research issue, that is, the human side of an issue. Qualitative approach was thus useful in probing the answers to the research questions by describing, understanding and explaining the link between inequity or equity in development and Government provision of services as well as the perception of the local community/households on Government role in public service delivery.

##### **3.1.2 Quantitative Research**

This study made use of descriptive research where an attempt was made to establish relationship between variables. Descriptive research involves variables that are not manipulated by the researcher and instead are studied as they exist. These variables are attribute variables like socioeconomic status of the community which cannot be manipulated. This research used equity

as a dependent variable while accessibility to health facilities, ratio of health personnel to patients/population, funds allocated to various area councils, physical area served by the facility and health facility to population/patient ratio (or number of patients served per year by a health facility) formed independent variables.

To better understand how equitable the government is and also understand the relation between growth and development, efforts were made to see how and why the health facilities as well as distribution of resources at the decentralized system are distributed as they are. As justice theory demands for fairness in resource allocation, 5 year expenditure per area council was matched with its respective population, number of communities and poverty levels to understand how the financial resources in the District are being allocated.

These variables provided an insight on the planning aspect of the district where good planning dictates that resources be put where they are needed most for efficiency purpose. This provided a basis for understanding well the concept of equity or distributive growth. Since quantitative research is all about quantifying relationships between variables, the relationship between variables were analyzed statistically.

### 3.1.3 Case Study Method

As the research area is a contemporary one, as far as equity in resource allocation in public service delivery is concerned, a case study method was particularly deemed useful in this study to explore as well as to validate the proposed study area in a natural environment. This was done by embarking on a focused empirical inquiry of Asutifi District as a planning region within its real-life context and that befits characteristics of other similar districts. This was useful in extrapolating the results of this case study in other planning centers in form of Districts.

This research is a single-case study as it involved an examination of a single socio-political phenomenon; equity in public service provision, using a single case example of Asutifi District in Brong Ahafo Region, rather than using multiple case examples of a single and same study or study of different phenomenon in the same area or region.

### **3.2 Sampling techniques**

The following techniques were used in selecting the case study area, sampling area and sample population;

#### **3.2.1 Selection of Case and Case Study Area**

The choice of the topic; assessing equity in public service provision, was borne out of the quest for a new understanding into issues surrounding Millennium Development Goals and also some Governments commitment in providing equitable development. More so, the attainment of a new status by Ghana as a new lower middle income country speaks a lot. Therefore, as new lower middle income country, how does the state share its resources? Is there a big gap in service provision between the rich and the poor, and the powerful and marginalized? This called for a research case that could well articulate the issues at hand and purposive sampling was found to be the most appropriate strategy as opposed to random or representational sampling of cases. Using random sampling in selecting the case could distort the researcher's view and understanding of the phenomenon. This is taking into consideration that the case study subject was because of a research problem that the researcher wanted to explore.

Flyvbjerg (2006) indicated that for case studies, it is more meaningful for cases and case study areas to be selected purposefully, according to whether or not they typify certain characteristics or contextual location as paradigmatic cases or exemplars. The choice of Asutifi District was



informed by the researcher's knowledge of the area as well as its deprivation status in which it is classified by the Ministry of Local Government and Rural Development as deprived (DMTDP 2010-2013). Its economy is mostly agrarian and like a normal deprived district, household incomes are generally low and poverty is widespread. The district too, is found in a region deemed as well off as compared to other regions as far as some MDG indicators are concerned and it was of great interest to see how the government is responding to such a deprived district found in a better off or well off region. This will provide a good understanding of what is happening in other areas and thus provide a good basis for analyzing equity in resource allocation by the government.

Asutifi District also appropriately fits the description of a long time existent planning unit. Therefore, based on the above, Asutifi District was used as good prototype of what is taking place in other districts. Purposive sampling thus offered the best option in selecting the case study area. Stake (1995) recommended that purposeful selection offers the opportunity to maximize what can be learned, knowing that time is limited. In Ghana, and for this research, 170 planning units in the form of District, Municipal and Metropolitan Assemblies could be chosen as a case study area.

### 3.2.2 Selection of sampling areas

In order to take care of all the issues under consideration, this study employed both probability and non probability sampling. Under probability sampling and to ensure that every member of the unit of analysis/population had an equal chance of being represented, the study employed stratified sampling. This involved using the existing area councils as well as communities as strata. These strata was in form of 117 communities shared among nine area councils as shown in Table 3.1 below;

**Table 3.1: Choosing the Sampling Strata (Area Council)**

No	Health Facility	Name of Town/Area Council (Strata)	No. of communities in each Council	Population	Randomly selected Area councils
1.	Esther Maternity Home	1. Kenyasi No.1 Area Council	4	13,778	
2.	Kenyasi Health Centre	2. Kenyasi No. 2 Area Council	5	12,322	Yes
3.	Gyedu Health Centre	3. Ntotroso-Gyedu-Wamahinso Area Council	14	13,882	Yes
4.	Goamu Koforidua CHPS	4. Goamu Area Council	21	7,701	Yes
5.	Nkaseim CHPS Compound	6. Nkasiem Area Council	15	7,296	
6.	Saint Elizabeth Hospital	5. Hwediem Area Council	14	13,438	Yes
7.	Gambia Rural Clinic	7. Gambia Area Council	18	15,757	
8.	Biaso CHPS Compound				
9.	Acherensua Health Centre	8. Acherensua Area Council	9	10,804	
10.	Dadiesoaba Health Centre	9. Dadiesoaba Area Council	17	19,518	Yes
11.	Sienchiem Rural Clinic				
<b>Total</b>			<b>117</b>	<b>114,496</b>	<b>5</b>

*Source: Author's Construct, 2011*

Because of time and financial constraints, five Area Councils were randomly picked using lottery method. The five chosen were Ntotroso, Hwidiem, Kenyasi 2, Dadiesoaba and Goamu. In choosing the communities, each of the chosen area council was given equal weight and therefore, two communities were chosen per area council. Thus a total of 10 communities were studied

where five (5) communities hosting major public health facilities at the respective area council and five (5) others without health facilities were chosen randomly from the five (5) area councils.

Choosing the communities therefore involved both purposive and convenient sampling. Under purposive sampling, communities with public health facilities became automatic sampling areas whereas the rest without them were chosen based on the distance between the community and the health facility where the farthest community but within the convenience of the researcher were chosen.

### 3.2.3 Sample size Determination

To instill fairness and equity in the research, the choice of sampling units, in this case households was done proportionately according to the household population of the respective communities. While calculating the total number of households in the sampling areas; an assumption of 7 persons per household was used (from the DMTDP 2006-2009) as shown in Table 3.2 below.

Taking all the households in the chosen area councils as a sample frame, to get the sample size therefore, the following procedure was followed;

Using the following formulae;  $n = \frac{N}{1 + N(\alpha)^2}$  where N is the sample frame size (number of households) and N is 9,303, n is the sample size and  $\alpha$  is the level of significance. Taking the confidence level at 90% ( i.e.  $\alpha$  as 0.1), therefore the sample size was given by;

$$= \frac{9303}{1 + 9303(0.1)^2} \text{ which gives a sample of 100 households.}$$

By taking 90% as confidence interval, the researcher was informed by the limitation of time allocated for the research and finances needed to conduct the research.

### 3.2.4 Distribution of samples

After determining the sample size in which the households was considered as the sample frame, this sample was then distributed according to the Area Councils. Based on the population of the Area Council and for equity purpose, areas with large population gave a proportional sample size as shown in Table 3.2 below;

**Table 3.2: Distribution of the sample population (Households) for survey**

Area Council	Population	Number of Households (7 persons per household)	Percentage of households	Number of households to interview
2. Kenyasi No. 2 Area Council	12,322	1760	18	18
3. Ntotroso-Gyedu-Wamahinso Area Council	13,882	1983	22	22
4. Goamu Area Council	7,701	1100	11	11
5. Hwediem Area Council	13,438	1920	20	20
9. Dadiesoaba Area Council	19,518	2788	29	29
<b>Total</b>	<b>66,861</b>	<b>9303</b>	<b>100</b>	<b>100</b>

*Source: Author's Construct, 2011*

After getting the total sample size for the study, these sample population were shared in a proportional manner by the various communities to obtain sample size (number of households) for each Area council by applying the following formulae;

$$\text{Sample size} = \frac{\text{percentage proportion of households (per the area council)}}{100} \times \text{gross sample size (n above)}$$

For example, for Dadiesoaba,  $\text{sample size} = 29/100 \times 100 = 29$  as sample size or the number of households to be surveyed in Dadiesoaba.

### 3.2.5 Selection of the samples (households and key informants)

After identifying the areas and communities as well as their respective number of households, the choice of the households was chosen based on first the health facility and second the direction of road used to access the community under survey. In the communities with the health facility, the households chosen were those situated on the right side of the facility. After identifying the first household, the next household was the 6<sup>th</sup> household after the immediate surveyed household but in a zigzag way. The intuition method was used in determining the kth sample (6<sup>th</sup>) as there was no list to assist in determining the Kth where the head of the household was taken as the respondent.

For those communities without health facilities, the furthest household from the direction of accessing the community was chosen as the first household. The rest were chosen after every 6<sup>th</sup> household also in a zigzag way.

Purposive sampling was also used to interview and probe for more information from the key informants specifically the District Health Director, District Planner, Works officer, Education officer, Budget analyst and the person in charge of health facilities in the Areas surveyed.

## 3.3 Data Collection: Sources and Techniques

The case study as a method has an advantage of flexibility and multiplicity in the use of data sources and techniques in data collection and analysis (Soy,1996). Thus, this study made use of multiple methods of data collection.

### 3.3.1 Sources of data

**Primary:** Primary data were collected through focused key informant (unstructured) interviews, researcher's observations, and structured interviews from the households.

**Secondary:** For secondary data, a review of pertinent documents and archival records was done, among them District Medium Term Plan, District budgets, public legal and policy documents, District Annual reports, relevant books and articles, National Medium Term Plans, National Long Term Plan (Vision 2020), studies by other researchers on the topic, newspaper clippings, Executive Orders and Ghana Constitution, planning documents, documents from the Ministry of Health like sector plans and other literature materials forming the basis of the research variables and that befits the case study.

### 3.3.2 Techniques and instruments for data collection

#### *Unstructured questionnaire*

Key informant interview was conducted to supplement or clarify information available from existing documents and records, or information gathered from the surveyed population. This was to provide more substantiated evidence and for concrete answers. As an in-depth data gathering technique, key informant interview employed unstructured interviews in the form of guiding questionnaire with people in the study area who have specialized knowledge about the topic being explored.

This technique was used to interview key informants among them District Director of health, District Planning Officer, Works officer, Finance officer, Education officer, budget officer as well as those in charge of health facilities and three community experts.



### *Structured questionnaire*

This formed the basis of the main survey as the households were targeted with a set of similar close-ended questions for easier analysis. A total of 100 questionnaires were administered to the households distributed between five Area councils and 10 communities.

#### 3.3.3 Designing the questionnaire

The administered open ended questionnaire and also the guide for unstructured interviews were designed in a way to help build or disapprove the theories underpinning the research. Therefore, theoretical constructs were immensely used as a guide in designing them. The literature review on the topic and also concepts guided in designing the questionnaire which was also in consonant with the research objectives and research questions.

#### 3.3.4 Minimizing the errors in the research process

To minimize errors in the research, pre-testing the questionnaire was done to remove ambiguity in the questions, ensure logic and to budget for the administration of the questions by way of time and resources.

### **3.4 Data processing and analysis**

Data collection is not an end to research but a means towards an end. It provides an avenue for processing the data and subsequent interpretation of this data to make a meaning out of it. For better analysis, data collected bearing the same meaning were grouped. Efforts were made to link the analysis with theoretical information. This was also done while taking into consideration the research questions which guided in interpretation of the results.

Editing of the collected data was performed to eliminate any potential error that could pose a serious challenge to the reliability of the research results. This involved checking the accuracy and consistency as well as completeness of the answers provided in the questionnaire.

After ensuring that errors have been minimized through editing, coding process followed where the answers provided were classified in terms of the questions in the questionnaire. This was carefully done to ensure that all responses collected are taken into consideration while also ensuring that a response fitted into only one category. These data were then transformed into usable format in terms of tables, charts and percentages. After tabulating the results into usable formats, an analysis was done to interpret the results and where necessary, further manipulation of data was performed through statistical applications like central tendencies, regression and correlation.

Data from the respondents were therefore analyzed using both quantitative and qualitative methods of analysis. Quantitatively, statistical applications like mean, regression and correlation, were used to understand the extent of relationship existing between variables. This was done with the aid of SPSS and Microsoft excel package to present the data in graphs, charts and tables. Qualitatively, the data from the key informants were used to complement the quantitative data by analyzing them through descriptive means.

## **4.0 CHAPTER FOUR: STUDY AREA PROFILE AND DISCUSSION OF SURVEY DATA RESULTS**

### **4.1 Introduction**

This chapter gives an overview of the study area that is Asutifi District in terms of both physical and socio-economic characteristics as well as expounding on the issues related to the study. Thus health issues in the District have been explained. An analysis of the research findings have been provided while linking them to what is documented in the study area and in literature review.

### **4.2 Ghana Profile**

Ghana, a tropical country on the west coast of Africa, is divided into ten administrative regions and 170 decentralized districts. The country had an estimated population of about 23.4 million (2010 projections) with a population density varying from 897 per km<sup>2</sup> in Greater Accra Region to 31 per km<sup>2</sup> in the Northern Region (GSS, 2009).

Life expectancy is estimated at 56 years for men and 57 years for women, while adult literacy rate (age 15 and above) stands at 65%. Ghana's economy has a dominant agricultural sector (small scale peasant farming) absorbing 55.8% (GLSS 5) of the adult labour force. Since independence, Ghana has made major progress in the attainment and consolidation of growth. However, a number of questions arise as to how to accelerate equitable growth and sustainable human development following the attainment of a middle income status before 2015 as had been planned.

### **4.3 Asutifi District Profile**

The Asutifi District was created in 1988 out of the Colonial Ahafo Region and is classified by the Ministry of Local Government as deprived. It is one of the twenty two (22) districts in Brong

Ahafo sharing boundaries with Sunyani in the North, Tano South District to the North East, Dormaa District to North West, Asunafo North and South Districts in the South West and Ahafo Ano South and North Districts (Ashanti Region) in the South East.

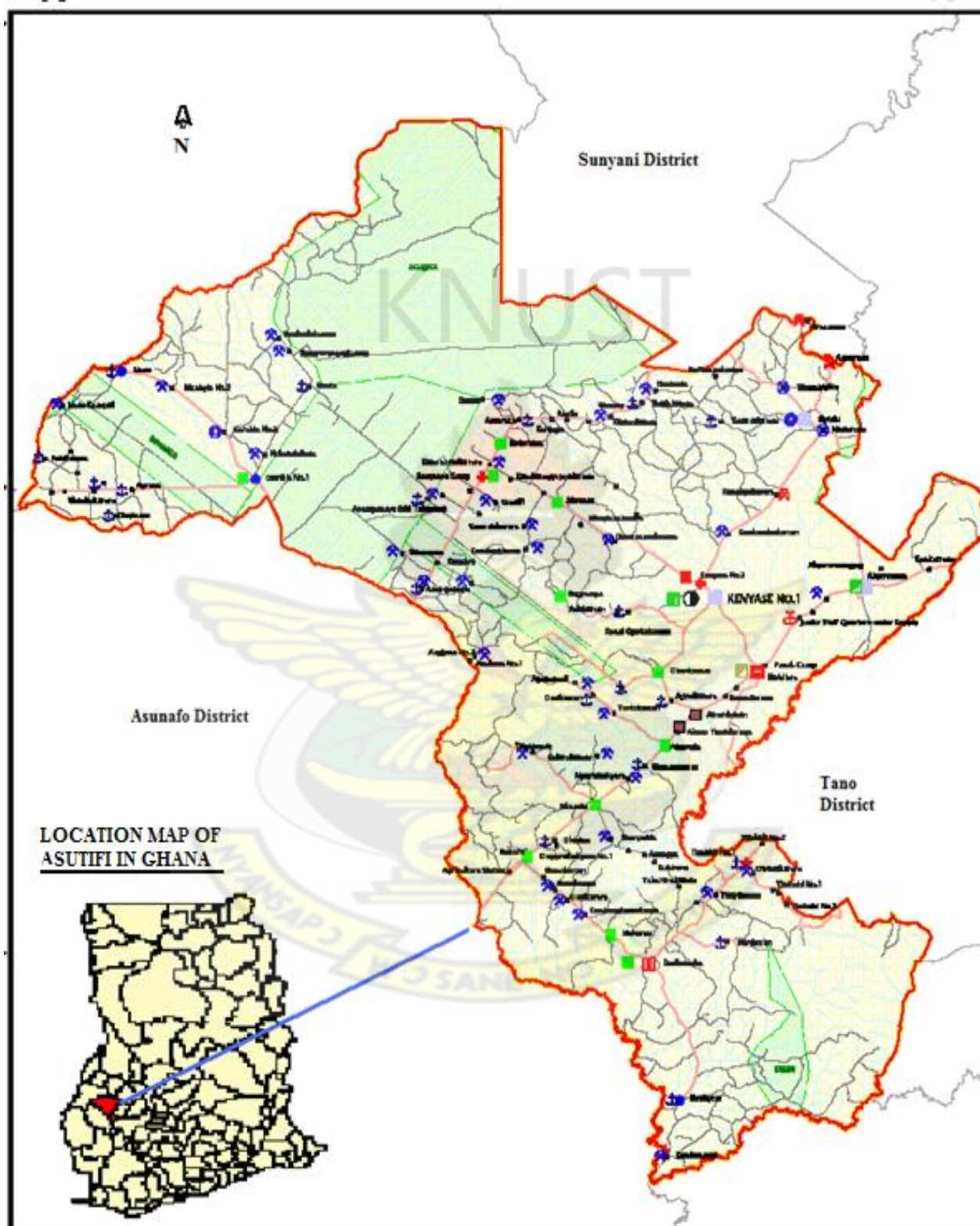
With a total land surface area of 1500 sq.km, the district is one of the smallest in the Brong Ahafo Region. There are a total of 117 settlements in the district and four paramountcies, namely: Kenyasi No.1, Kenyasi No.2, Hwediem and Acherensua. The district capital is Kenyasi, which is about 50km from Sunyani, the regional capital of Brong Ahafo. The population of the district was estimated to be about 84,475 in 2000 and with a growth rate of 2.8%, this population has been projected to be 117,502 in 2011( Asutifi DPCU, 2010).

The predominant occupation in the District is subsistence agriculture which engages 66.7 per cent of the economically active labour force. The Asutifi district continues to exhibit rural characteristics. Only two communities (Kenyasi No. 2 and Hwediem) were described as urban (i.e. population of 5000 or more) by the Population and Housing Census in 2000. This depicts a rural-urban split of 79.5% rural and 20.5% urban. This situation poses a problem for even distribution of services and functions as population thresholds is normally used to allocate resources and this cannot be met by the rural communities.

The distribution of services in the district is based on the population and size of the community. However most of the socio-economic amenities are located in the seven large settlements in the district (DMTDP, 2010-2013). Other communities therefore have to travel some distances to enjoy some basic facilities.



Figure 4.1: Map of Asutifi District



Source: NDPC, 2011.

**Table 4.1 : Expenditure of Sampled Households by Type**

INCOME	PERCENTAGE
Feeding	59
Energy	13
Transport	10
Education	8
Health	3
Funerals	4
Housing	3
TOTAL	100

*Source: Asutifi DMTDP (2006-2009)*

The average income per month for a household is about GH¢ 20.25 with a monthly expenditure of about GH¢ 20.87. About 60% of this household income is spent on food while 3% is spent on health. Compared with the National minimum wage of GH¢ 21.45 per month (year 2002 figure) and using expenditure as basis for assessing gross income, it can be seen that the average income levels in the District is quite fair. The problem, however, is the inequalities in the distribution of income in the district. It is sad to note that some food crop farmers receive as low as GH¢ 2.90 per month as income.

Generally, the standard of living of the people is low especially in the non-mining areas. About 48.9% of the people live below the poverty line. The people's access to basic facilities and services is limited, and this accounts for their inability to contribute meaningfully to development.

The 2006 Socio Economic Survey showed that the upper 20 per cent of the households in the district controls 60 percent of the income in the district, while the lower 25% controls as little as 4% of the income. This therefore calls for government intervention in ensuring equitable distribution of public services; a distribution based on the need and for creating equal opportunities.



The revenue generation over the years have increased tremendously from GH¢ 81,221.64 in 2006 to GH¢ 856,886.53 in 2009 (DMTDP, 2010-2013).

#### **4.4 Health Sector**

Health is a very important component of human resource development. Improved health will have a rippling effect on productivity, income levels and standard of living. As indicated the population of the district will increase significantly within the planned period. There is the need to assess the demand for health facilities.

The health delivery in the country now lays more emphasis on the Primary Health Care (PHC) through the Community Health Planning Concept which tries to make health accessible to all rural people at minimal and affordable costs. The system lays more emphasis on preventive rather than curative and rehabilitative measures.

A critical look at the facilities and their locations indicate that, by the year 2013 a few health Infrastructure will be required. However this will be a reality if existing facilities are up-graded to meet current health demand which is likely to take an upward trend due to the National Health Insurance Scheme. There is therefore the need for increase in investment in the health sector.

##### **4.4.1 Health Facilities in the District**

The District has a total number of sixteen (16) health facilities. The district has no designated public District Hospital but derives the services from St. Elizabeth hospital which is owned and managed by the Catholic Diocese. It acts as both the district hospital and a referral center for the Asunafo District. It has a bed capacity of 130, with surgical, medical and obstetric services. Besides, it has facilities for screening blood for HIV and it runs a T. B. programme.

Ten (10) of the health facilities are publicly owned by government. One private health facility; International S.O.S clinic, caters to only staff of Newmont Ghana Gold and others who work at the plant site. The health facilities in the district, their location and ownership are outlined in Table 4.2 below;

**Table 4.2 : Health Facilities by location and ownership**

No	HEALTH FACILITIES	LOCATION	OWNERSHIP
1	Saint Elizabeth Hospital	Hwidiem	Catholic Diocese
2	Kenyasi Health Centre	Kenyasi No. 2	Government
3	Gyedu Health Centre	Gyedu	Government
4	Acherensua Health Centre	Acherensua	Government
5	Dadiesoaba Health Centre	Dadiesoaba	Government
6	Gambia Rural Clinic	Gambia No. 1	Government
7	Sienchiem Rural Clinic	Sienchiem	Government
8	Nkaseim CHPS Compound	Nkaseim	Government
9	Biaso CHPS Compound	Biaso	Government
10	Apenamadi CHPS Compound	Apenamadi	Government
11	Goamu Koforidua CHPS	Goamu Kofiridua	Government
12	Esther Maternity Home	Kenyasi	Private
13	St. Elizabeth Maternity Home	Kensere	Private
14	Blessed Family	Twabidi	Private
15	International S.O.S.	Kenyasi (Newmont)	Private
16	Nkaseim Community Clinic	Nkaseim	Private

**Source: District Health Directorate, Kenyasi-2010**

Although all the facilities are working, the caliber of staff is disappointing and are also in short supply. The health centre at Dadiesoaba is manned by a midwife and consultation is done by a ward assistant. The health centre at Acherensua is also manned by a midwife who also doubles to conduct deliveries. All the CHPS Compounds are being operated as clinics thereby downgrading them. There is therefore the need for expansion in such facilities to cater for the numerous patients that access the facility.

#### 4.4.2 Categories of Health Personnel in the District

The health personnel of the various categories in the District are few and inadequate except Community Health Nurses (CHN) who are considered to be too many in the district (DMTDP 2010-2013).

**Table 4.3 : Categories of Health Personnel in the District**

Category of Health Personnel	Total Number of Health Personnel			
	2006	2007	2008	2009
Medical officers	1	1	0	0
Medical Assistants	4	4	4	2
Nurses/Midwives	11	11	11	15
CHN/EN	11	11	21	27
TO/FT	12	12	19	18
Pharmacist	1	1	1	0
Other Health Staff	64	44	33	42

*Source: District Health Directorate, Kenyasi-2010*

Under the District Health Insurance Scheme, there was a remarkable increase in enrolment of both registered and renewals from a low level of 25,097 in 2006 to 73,215 in 2009 representing 78.6% of the population of the District (Asutifi DMTDP, 2010)

#### 4.5 Results and Discussion of the Survey Data

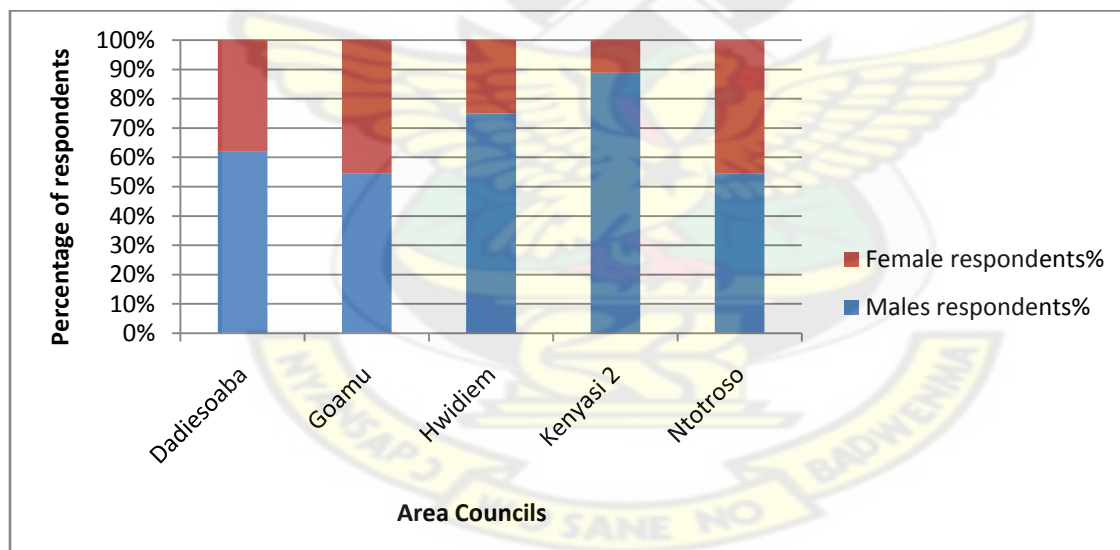
This part provides a summary of the findings on demographic and economic characteristic of the households sampled in the survey. This information is set to provide a useful insight and inference so as to draw conclusions and further make useful recommendations. The chapter also provides a discussion on the analysis from the data collected from the households, heads of departments at the District Assembly and also from the staff at the health facilities.

#### 4.5.1 Demographic characteristics of the respondents

##### Age and Sex structure

This study was less considerate in the choice of respondents in terms of sex. This was due to the fact that the sample was basically from the heads of the household. Therefore, out of 100 respondents, 33% were females. This therefore does not in any way reflect the ratio of women to men in the District. About 50.4% of the estimated population is females and the rest 49.6% males. Goamu had the highest percentage of female respondents as they comprised 45% of the respondents in Goamu. This high number of female respondents is attributed to the fact that most of the men were not available at home. Kenyasi 2 had the lowest proportion of women standing at 12% of the respondents in Kenyasi.

**Figure 4.2: Gender Composition of the respondents by Area Councils**



*Source: Field survey, 2011*

##### Education level

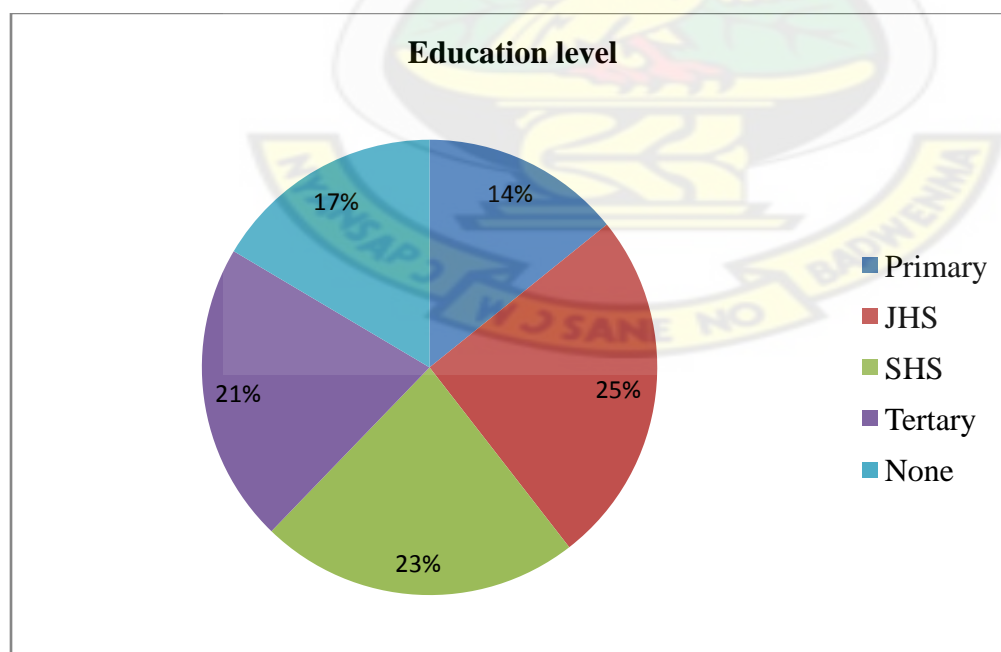
The educational level of an individual informs the choice they make and also their opportunities in life including that of their health and well being. The capability approach as expounded by

Sen (1979) emphasizes functional capabilities where individuals have substantive freedoms such as the ability to live to old age, engage in economic transactions, or participate in political activities. These can best be improved through better health care which is correlated with educational levels. The higher the educational level of an individual, the higher the capability to live good life.

According to Grossman (1995), education has a positive correlation with utilization of health services with higher educational levels expected to result to higher and effective utilization of health services. Ghana Demographic Health Survey (GDHS) of 2003 observed that women with higher education level were more likely to adopt family planning method and this can apply to other health care needs of women.

Figure 4.3 below summarizes the level of education for the respondents with the corresponding intake of health Insurance.

**Figure 4.3: Educational Levels with NHIS uptake of the respondents**



*Source: Field survey, 2011*

Figure 4.3 above tends to actually confirm Grossman's notion that education has a positive correlation with utilization of health services. As indicated by the chart above, those without education and those with primary education had a lower proportion of people with health insurance. Whereas those with primary comprised of 14% of those insured, those with tertiary education comprised 21% of the NHIS members.

#### 4.5.2 Economic situation

##### Employment status/ poverty situation

The major occupation of the people surveyed indicated that majority of them were engaged in agriculture, commercial activities and also in service industry. Goamu however, led with the highest number of unemployed people at 10% of the respondents.

**Table 4.4: Linking spatial areas and income levels**

Monthly income	Area council										Total	
	Dadiesoaba		Goamu		Hwidiem		Kenyasi 2		Ntotroso			
	No	%	No	%	No	%	No	%	No	%	No	(%)
Less than 100 GH¢	2	20	4	40	2	20	1	10	1	10	10	100
Between 101-300 GH¢	9	24	6	16	12	33	3	8	7	19	37	100
Between 301-500 GH¢	9	41	0	0	3	14	4	18	6	27	22	100
Between 501-700 GH¢	5	42	0	0	1	8	5	42	1	8	12	100
Above 701 GH¢	4	24	1	6	2	11	4	24	6	35	17	100
Abstain	0	0	0	0	0	0	1	50	1	50	2	100

*Source: Field survey, 2011*

Whereas the average income for the surveyed households stands at GH¢ 415.00, 10% of the respondents are living below GH¢ 100.00 a month. Goamu had the highest poor respondents whereby 40% of those earning less than GH¢ 100.00 a month came from Goamu. 35% of those earning above GH¢ 701 came from Ntotroso.



From the DMTDP (2010-2013), the average monthly income of a household was estimated as GH¢ 20.25 while the National Minimum wage was said to be GH¢ 21.5. The findings from this survey indicate otherwise as the average monthly income of the respondents was found to be GH¢ 415. This indicates the extreme inequities that exist between the rich and the poor in the District. While the lowest monthly income was found to be GH¢ 45, the highest income was GH¢ 1500.

With a total monthly income of the respondents being GH¢ 41,581, those earning more than GH¢ 600 (representing 25% of the respondents) were found to be earning a total of GH¢ 22,425 representing 54% of the total income while those earning less than 300 (representing 50% of the respondents) earned a total of GH¢ 8,699 representing 21% of the total income. Therefore, this indicates widespread inequities as 25% of the respondents control 54% of the total monthly income while 50% controls 21% of the total income.

The low income of these areas signifies their poverty status. This call for more resources from the Government so as to leverage these disadvantaged people. However, only Ntotroso area council can be confirmed from the poverty map as very poor as it ranked among the poorest areas (4<sup>th</sup> least poor area) within the District while Goamu is considered better off than most area councils (least poor). This information can be verified in the poverty map indicated in the next analysis.

#### 4.5.3 Institutional set up at the Districts for Allocation of resources

The District Planning Coordinating Unit is virtually in charge of preparing the District plan and prioritizing the community needs based on Area councils. This District Plan is perhaps the only criteria identified by the DACF Act as a tool for allocating the DACF. Section 87(2) states further that *“For the avoidance of doubt all monies received by a District Assembly from the DACF shall be expended only on projects, which form part of the approved development plan for the District”*.

The Area Councils are not active. There are no offices and lack permanent staff. Only three area councils had offices but still were not performing their roles. There are no Area Council Plans which should guide the District Plan preparation. At the District level, the most supposedly active unit, that is the District Planning and Coordinating Unit lacks commitment by other staff and more often the office of the District Planner does most of the undertakings. This is despite that the Planners office is also understaffed.

The overall executive mandate of the DA is under the Executive Committee which is chaired by the DCE. The role of the departments is minimal as they are required only to advise and the DA or the Executive committee can decide to heed or ignore the advice. They also receive orders from the executive on their functions. This creates a lot of disharmony and often the Departmental staffs are demoralized working under such scenarios where politics rule the day.

#### 4.5.4 Assessing Health Equity

In order to understand how equitable the health service is, the following has been used to achieve this;

- Equity in access to health care;

- Equity in utilization of health care;
- Equity in financing of health care;

Equity in access to health care

*Accessibility patterns and distribution of health facilities*

The spatial distribution of health facilities is well described in Table 4.5 below. While the District lacks a designated Government/public District Hospital, St. Elizabeth Hospital in Hwidiem provides and acts as a referral point for all the other facilities within the District. It also benefits from government assistance in terms of provision of medical personnel and training of the lower cadre staff.

Therefore, this facility has been assumed as a District hospital in calculating the coverage of the population by the health facilities. The total coverage for the District currently stands at 86% representing a population of about 99,000. The highest coverage is in Hwidiem Area Council where St. Elizabeth Hospital is located with 100% of the population covered; this also act as a District hospital though a private (Roman Catholic) owned.

**Table 4.5 : Spatial Distribution of health facilities**

Area council	Population 2010 projected	Number of health facilities	Health facilities	Threshold population by facility	Covered Population	New proposed facilities under construction 2011
Kenyasi 1	13778	0	Kenyasi Health Centre	15,000	57%	-
Kenyasi 2	12322	1		(classified as urban Health centre)	(15,000)	-
Hwidiem	13438	2	Apenamadi CHPS Compound	3500	100%	-
			St Elizabeth Hospital	30,000	(13,438)	
Goamu	7701	1	Goamu Koforidua CHPS	3500	45% (3500)	Atwedie CHPS compound
Dadiesoaba	19518	2	Dadiesoaba Health Centre	10,000	77% (15,000)	Akotosu CHPS compound
			Sienchiem Rural Clinic	5000		
Acherensua	10804	1	Acherensua Health Centre	10,000	93% 10,000	-
Nkasiem	7296	1	Nkaseim CHPS Compound	3,500	48% (3500)	-
Gambia	15757	2	Gambia Rural Clinic	5,000	54%	Krachokrom CHPS compound
			Biaso CHPS compound	3,500	(8,500)	
Ntotroso	13882	1	Gyedu Health Centre	10,000	72% (10,000)	-
District Summary	114,496		District Hospital	30,000	86% (99,000)	
			1 urban Health centre	15,000		
			3 Health centres	10,000		
			2 Rural clinics	5000		
			4 CHPS compounds	3500		

**Source: Field survey, 2011**

To further improve the coverage of the District and in particularly the three Area councils, the District Assembly together with Directorate of Health have embarked on construction of three Community-based Health Planning System (CHPS) compounds to increase the coverage and enhance access of the health services.

The lowest population coverage of health facilities was found in Goamu-Koforidua and Gambia Area Councils with 45% and 54% respectively. The low coverage signifies low access of the health facilities. Therefore, the planned facilities at Goamu and Gambia Area Councils have taken into consideration the low coverage of the health services. The other planned CHPS compound in Dadiesoaba has taken into account the large population of the Area council.

However, the population threshold of some of the facilities does not hold due to the nature of the scatter exhibited by some communities. It will therefore not be enough to use population threshold alone when allocating the health facilities but the geographical coverage of the area as well as accessibility pattern of the road network.

#### **Assessing physical Accessibility – distance and time to the facilities**

In order to understand the accessibility of the health service by different communities based on the Area councils, the distance and time taken to reach the nearest health facility were recorded from the respondents.

**Table 4.6: Summary of distance and time taken to facilities by Area Council**

	Distance to health facility				Time taken to health facility				
	Less than 1 km	Between 1-2 km	Between 2.1-4 km	Above 4.1 km	Less than 30 Mins	Between 31-60 Mins	Between 61-120 Mins	Between 121 Mins-4 hrs	More than 4 hours
Area council	Number of respondents in %								
Dadiesoaba	16	8	5	0	14	12	2	1	0
Goamu	5	6	0	0	10	1	0	0	0
Hwidiem	10	0	10	0	19	1	0	0	0
Kenyasi 2	9	6	3	0	15	3	0	0	0
Ntotroso	10	12	0	0	22	0	0	0	0
<b>Total</b>	<b>50</b>	<b>32</b>	<b>18</b>	<b>0</b>	<b>80</b>	<b>17</b>	<b>2</b>	<b>1</b>	<b>0</b>

*Source: Field survey, 2011*

This survey shows that 50% of the respondents live within 1 km from the health facility in the District while 32% live between 1 and 2 km from the health facility. However, Goamu residents had the lowest proportion of population living within the 1 KM in which 55% of its residents lived beyond 1 km mark.

The accessibility of health facilities was found to be better when considering time taken to reach a health facility where 80% of the population sampled spends less than 30 minutes to access them. While 17% of the respondents spend between 30 – 60 minutes, 52% of respondents in Dadiesoaba indicated that they spend more than half an hour to reach the nearest health facility. The mode of transport used in accessing the facilities ranges from walking to the use of personal cars. Whereas the accessibility to health facilities in Brong Ahafo Region is considered to be 52% (i.e the percentage of population spending not more than 30 minutes to reach health facility), the District seems to have a better coverage at 80% according to this survey.

Equity in utilization of health care

#### *Income levels and health expenditure*

With respect to health expenditure, 75% of the respondents were using their NHIS while the rest were using the “cash and carry” method which was to be eliminated through the insurance scheme.

**Table 4.7: Income levels and private health expenditures**

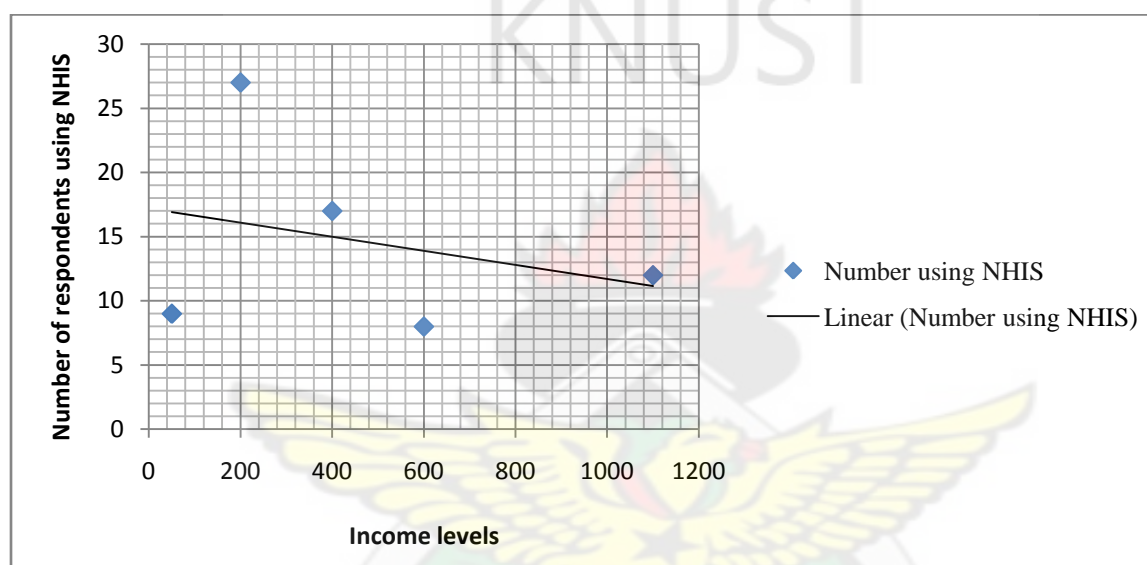
Monthly income	Health expenditure							
	Through NHIS		Less than GH¢ 20		Between GH¢ 21-45		Above GH¢ 46	
	No.	%	No.	%	No.	%	No.	%
Less than 100 Ghana cedis	9	90	1	10	0	0	0	0
Between 101-300 Ghana Cedis	27	73	7	19	3	8	0	0
Between 301-500 Ghana cedis	17	77	1	5	3	13	1	5
Between 501-700 Ghana Cedis	8	67	1	8	0	0	3	25
Above 701 Ghana cedis	12	70	1	6	2	12	2	12
Abstain	2	100	0	0	0	0	0	0
<b>Total</b>	<b>75</b>		<b>11</b>		<b>8</b>		<b>6</b>	

*Source: Field survey, 2011*



The information in Table 4.7 shows that 90% of the poor (earning below GH¢ 100) are accessing health care using insurance scheme. This is compared to 70% of those earning above GH¢ 701 and 67% for those earning between GH¢ 501-700. This indicates that the majority poor are receptive of the government efforts to ensure access to health care for all. The linkage between the income levels and the use of NHIS has been shown in Figure 4.4 below.

**Figure 4.4: Relationship between Income levels and uptake of NHIS**



*Source: Field Survey, 2011*

Figure 4.4 above indicates a linear negative correlation between level of incomes and the number of people with health insurance. This therefore means that as the level of income is increasing, the number of people using NHIS reduces. This is good news for the policy makers as it signifies that the Health insurance policy is working as envisaged; i.e to help the poor. Though it can be deemed good news, this can be a fallacy in that the rich who are supposed to subsidize for the poor are running away from the responsibility. This can have an adverse effect in the health care system in the District as 49% of the District population living below poverty line cannot sustain the Insurance scheme in the District. The Health care system therefore will be of poor quality.

The service offered through insurance to the NHIS card holders was regarded as of poor quality as the patients complained of being neglected to the comfort of the ones using cash. The patients complained that the NHIS is not comprehensive and only covers simple illness and whenever they felt sick even from serious illness, they were only being given pain relievers and simple medication. These raise doubts in the achievement of the equity for all in which NHIS is set to achieve. The failure of NHIS to support the poor in health care means that justice theory is yet to work in utilization of health care in the District.

### **Human resource**

The doctor to population ratio in the District stood at 1: 108,682 in comparison with the national and regional ratio of 1: 11,929 and 1:16,919 respectively in 2009 while for the nurse to population ratio was 1:7,245 against 1:971 and 1:993 for the national and region ratios respectively. These depict a wide disparity and inequity in human resource distribution in the country.

Whereas the importance of physical access to health care cannot be emphasized, the issue of human resource is more critical such that in its absence, the health care utilization cannot be achieved. Currently the District is totally understaffed and is in need of technical personnel. Inadequacy of the personnel defeats the logic of establishing many health facilities at the community level. This tends to increase the workload of the existing staff and thus prevents them from working efficiently. It consequently increases waiting times of patients and thus reducing the utilization of health facilities and at worst patients will keep off from visiting them. The net effect is a society that has no confidence in the country's health system and might result in increased mortalities.

**Table 4.8: Adequacy of health staff**

Actual data				Respondents views	
Area council	Number of health facilities	Health facilities	Staff gaps	Inadequate	Adequate
<b>Kenyasi 1</b>	0	Kenyasi Health Centre	-		
<b>Kenyasi 2</b>	1	-	10	16	2
<b>Hwidiem</b>	2	Apenamadi CHPS Compound	2	20	0
		St Elizabeth Hospital			
<b>Goamu</b>	1	Goamu Koforidua CHPS	3	6	5
<b>Dadiesoaba</b>	2	Dadiesoaba Health Centre	8	25	4
		Sienchiem Rural Clinic			
<b>Acherensua</b>	1	Acherensua Health Centre	5		
<b>Nkasiem</b>	1	Nkaseim CHPS Compound	6		
<b>Gambia</b>	2	Gambia Rural Clinic	4		
		Biaso CHPS compound			
<b>Ntotroso</b>	1	Gyedu Health Centre	9	20	2
Total	11		47	87	12

*Source: Field survey, 2011*

The actual data gaps indicate that all health facilities in the District do not have adequate staff. Currently, 47 health personnel are needed to make the health service provision easily utilizable by the patients. This was also confirmed by the perception of the respondents where 87% of them felt that the staffs at their facilities are overwhelmed due to the inadequate staffs. Hard hit facilities are the health centres which lack medical assistants and the CHPS compound which lack community health nurses. Equally, some of the health facilities are managed by the midwives. This staff shortage best explains the long waiting times at the health facilities that were expressed by the respondents. This is summarized in Table 4.9 below;

**Table 4.9: Waiting time at the health facilities**

Area council	Waiting time at health facility			
	Less than 30 mins	Between 31-60 Mins	Between 61-120 Mins	Above 2 hours
	%	%	%	%
Dadiesoaba	7	8	6	8
Goamu	10	0	1	0
Hwidiem	1	4	2	13
Kenyasi 2	2	6	5	5
Ntotroso	1	6	6	9
	21	24	20	35

*Source: Field survey, 2011*

Goamu with low staff shortage (3), and with 55% of its respondents expressing that the health staff are inadequate, had more respondents at 10% (or 82% of its residents) expressing shorter waiting times of less than 30 minutes. Kenyasi 2 with highest staff shortage had 16% respondents (or 89 of its respondents) indicating above 30 minutes as their waiting time. The high number of respondents in Hwidiem claiming long waiting time of more than 2 hours can be attributed to those who are using the District Hospital that receives patients from all parts of the District.

These data suggest that inadequate staff have a high impact on waiting time. Long waiting times affect the accessibility as well as utilization of health care. This is because long queues disorient patients and measures to redress staff inadequacy should be placed as a priority. These inadequacies of staff have been attributed to the following reasons;

- Brain drain attributed to low salaries as compared to developed countries.
- Health staff keeping off from the rural areas
- National shortage of trained personnel.

## Equity in financing of Health care

While the District Health Directorate is facing decreased funding from the parent Ministry, the financial arrangements of the District is in the hands of the District Assembly. In the spirit of local participation, often, major decisions pertaining financial modalities to benefit the health sector are done without the Health Directorate's knowledge. The District Assembly share funds according to community needs but without much consideration to equitable development. The health facilities depend much on the NHIS reimbursements to cater for the needs of the facilities.

### 4.5.5 Assessing Allocational Criteria for funds within the District

With virtually most of the funds flowing from the national level to the Districts having a set of formulae and criteria, the allocation in the Districts is not very clear. In trying to understand how the District Assembly prioritize the various community needs, three important indicators which are population, poverty and geographical coverage often used in allocating resources for equity purpose were analysed. The relationship between the funding of the Area Councils with the spatial consideration (number of communities per area council), population and poverty consideration were sought.

#### Population and funding

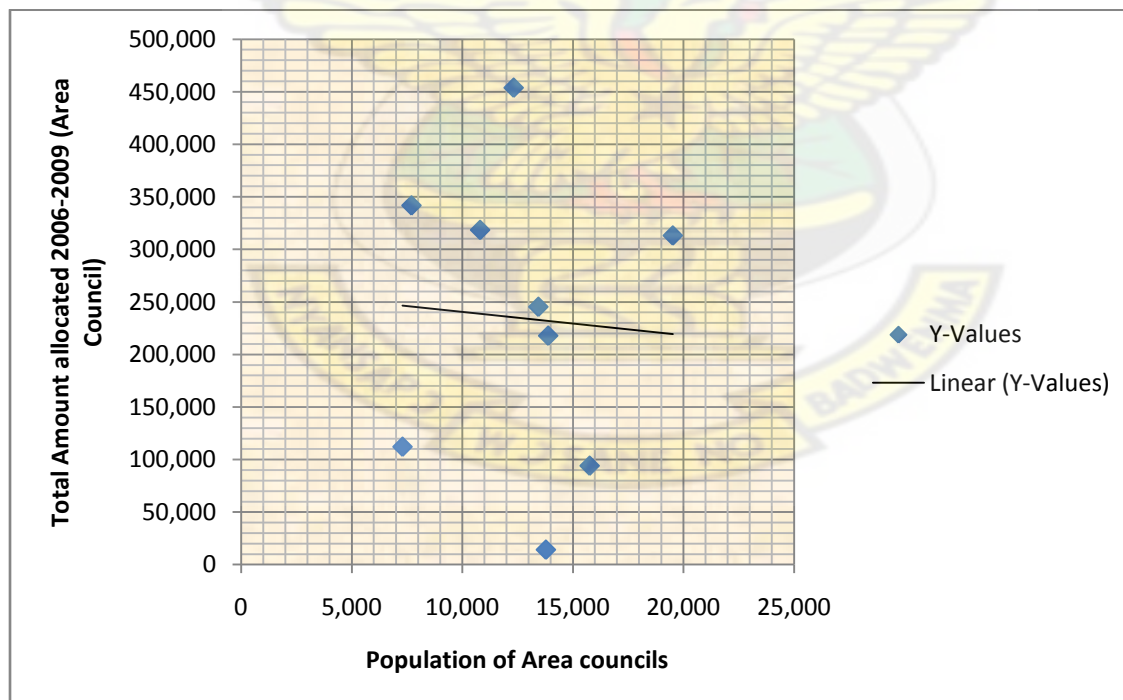
Table 4.10 below shows the various funding to the Area Council from 2006 to 2010 with the corresponding population. It is clear from the onset that funding for the Area Councils are of different magnitude. Some years lacked funding partly due to delay in receiving the funds and the spending is captured with the next funding year.

**Table 4.10: Level of funding to Area council ((2006-2010)**

Area Council	2006 GH¢	2007 GH¢	2008 GH¢	2009 GH¢	2010 GH¢	Total GH¢ (y)	Population (x)
Ntotroso	100,224				117,598	217,822	13,882
Hwidiem	66,346	52,500			126,472	245,318	13,438
Gambia			13,749		80,352	94,101	15,757
Kenyasi 1					14,243	14243	13,778
Kenyasi 2	59,872		262,702		131,194	453,768	12,322
Dadiesoaba	86,790				226,340	313,130	19,518
Nkasiem	97,929				14,243	112,172	7,296
Goamu	59,690				282,071	341,761	7,701
Acherensua	107,100	52,500			158,857	318,457	10,804
<b>Total</b>	<b>577,951</b>	<b>105000</b>	<b>276451</b>		<b>1,151,370</b>	<b>2,110,772</b>	<b>114,496</b>

*Source: Field survey, 2011*

Kenyasi 2 received the highest allocation in the 5 year period while Kenyasi 1 had the lowest allocation. Taking the total allocation as dependent and population as independent variable, Figure 4.5 below best explain the relationship between these variables in a scatter diagram;

**Figure 4.5: Scatter diagram linking population and fund allocation**

*Source: Author's Construct, 2011*



From the linear equation which is representing line of best fit;  $y = ao + aix$  and from the graph; finding the equation; Choosing two points along the gradient, Point A (x,y) will give ;(19000, 220,000); B;(10000, 240,000), therefore substituting these into  $y = ao + aix$

Thus,  $220,000 = ao + 19,000x$  therefore,  $240,000 = ao + 10,000ai$  Where

$ao = 262,777.5$  and  $ai = -2.223$

Thus, the equation will be  $y = 262,777.5 - 2.22x$

To understand the nature of the relationship, a coefficient of correlation (r) and coefficient of determination ( $r^2$ ) was used, it was found that  $r = -0.06$  whereas  $r^2 = 0.036$  (3.6%). Coefficient of correlation of -0.06 indicates an inverse relationship between the population and funds allocated and therefore, the population is not an active consideration at the District level for allocating funds. Coefficient of determination of 3.6% indicates that only a paltry of 3.6% of the funds allocated to the Area Council is attributed to the population.

Number of communities and funds allocation

With 117 several communities, the District is challenged to ensure equitable distribution of facilities. The number of communities often than not indicates the size of the Area Council geographically. Therefore, it should follow that areas with more communities should be given more resources so as to improve the physical accessibility of the facilities.

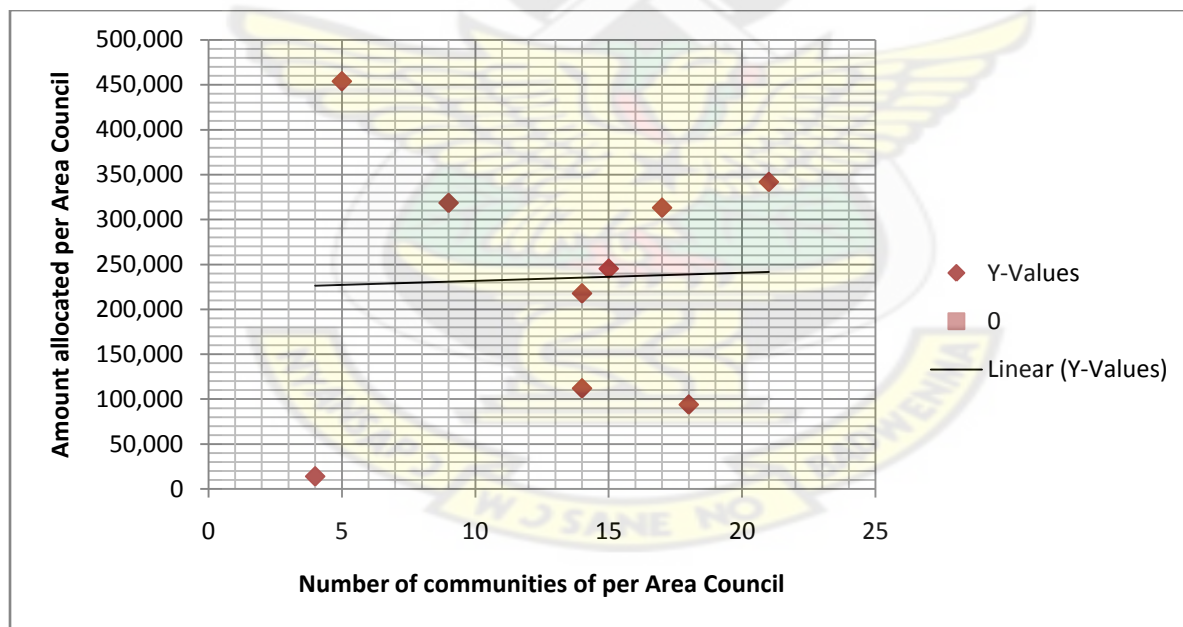
**Table 4.11: Number of communities and level of funding (2006-2010)**

Area council	Population 2010 projected	Number of communities	Funding Received (cumulative 2006-2010)
<b>Kenyasi 1</b>	13778	4	14243
<b>Kenyasi 2</b>	12322	5	453,768
<b>Hwidiem</b>	13438	15	245,318
<b>Goamu</b>	7701	21	341,761
<b>Dadiesoaba</b>	19518	17	313,130
<b>Acherensua</b>	10804	9	318,457
<b>Nkasiem</b>	7296	14	112,172
<b>Gambia</b>	15757	18	94,101
<b>Ntotroso</b>	13882	14	217,822

*Source: Kenyasi District Assembly, 2011*

In order to assess the linkage between the numbers of communities in an Area Council with the allocation of funds, the following graph labeled Figure 4.6 was a result;

**Figure 4.6: Relationship between No. of communities and amount allocated**



*Source: Author's Construct, 2011*

The above line generates the following linear equation;  $y=222793+860x$  and a coefficient correlation (r) of 0.037 with coefficient of determination,  $r^2=0.00137$  (0.14%). This signifies a

positive but a weak relationship between the number of communities in an Area Council and the total amount allocated.

Therefore, coefficient of correlation of 0.037 indicates a positive but weak correlation between the number of communities in an Area Council and the amount of funds allocated. From this equation too, 0.14% of the funding can be explained by the number of communities in an Area Council.

### **Linking Poverty with Allocation of resources**

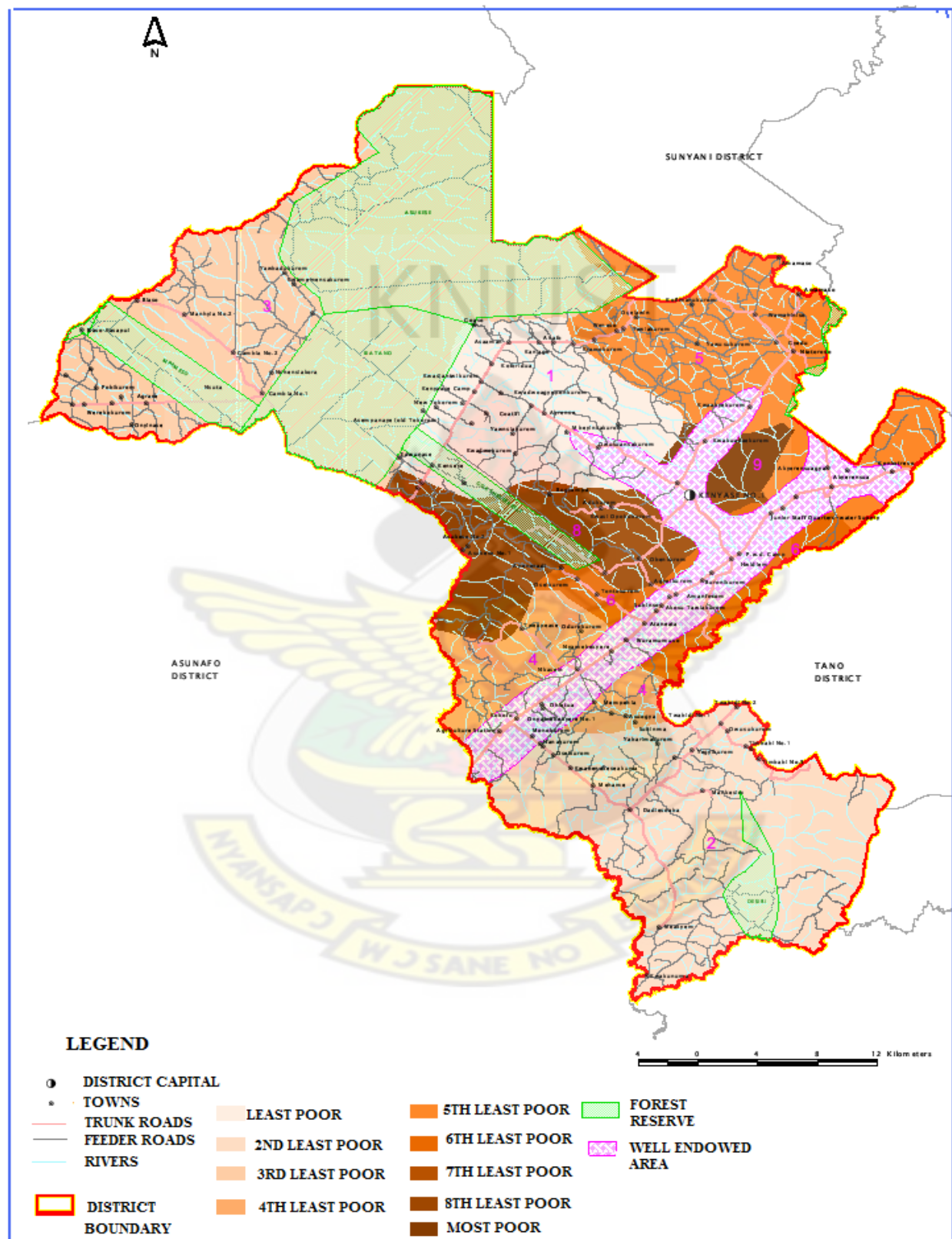
From Figure 4.7 below, the poorest areas are found in Kenyasi 2 (marked 9), Goamu and Hwidiem (marked 8). However, while Goamu have the poorest area, it also boasts of the least poor area in the District which forms majority of this Area Council. This thus overshadows the poor areas within Goamu. Thus the map (Figure 4.7) below, these Area Councils can be ranked and categorized as in Table 4.12 below;

**Table 4.12: Poverty levels per Area Council**

Area council	Population 2010 projected	Number of communities	Poverty situation (from NDPC poverty map)	Codes attached for Graphical Presentation	Amount allocated (2006-2010)
<b>Kenyasi 1</b>	13778	4	Well endowed	1	14243
<b>Kenyasi 2</b>	12322	5	Well endowed	1	453,768
<b>Hwidiem</b>	13438	15	4 <sup>th</sup> Least poor	5	245,318
<b>Goamu</b>	7701	21	Least poor	2	341,761
<b>Dadiesoaba</b>	19518	17	2 <sup>nd</sup> least poor	3	313,130
<b>Acherensua</b>	10804	9	5 <sup>th</sup> least poor	6	318,457
<b>Nkasiem</b>	7296	14	3 <sup>rd</sup> least poor	4	112,172
<b>Gambia</b>	15757	18	3 <sup>rd</sup> least poor	4	94,101
<b>Ntotroso</b>	13882	14	5 <sup>th</sup> least poor (most poor)	6	217,822

*Source: Field survey, 2011*

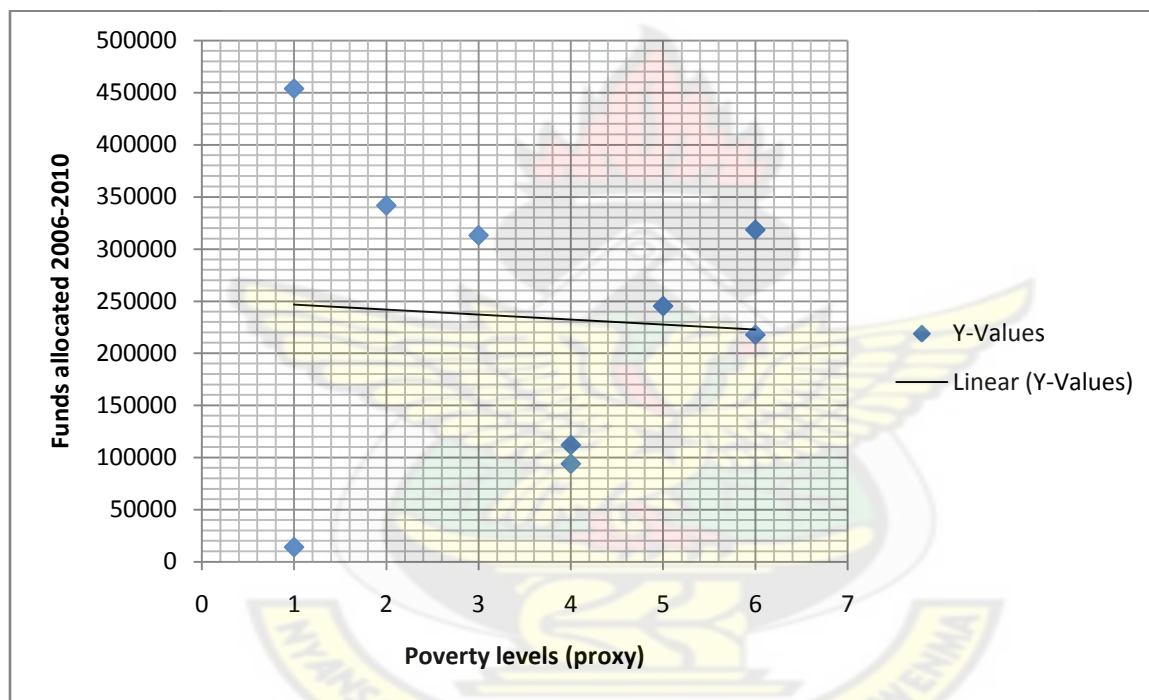
Figure 4.7: Poverty Map of Asutifi District



Source: NDPC, 2011

Table 4.12 above shows the poverty levels of the different Area Councils with corresponding number of communities. The codes have been assigned to signify the general level of poverty per Area Council. Code 1 shows a well endowed Area council that should receive less attention than the poor areas. Code 6 indicates the poorest Area council that should be receiving more resources. These codes were then plotted against the amount of resources received in each area council and the following chart (Figure 4.8) shows the relationship;

**Figure 4.8: Linking poverty levels and funds allocation**



*Source: Author's Construct, 2011*

Figure 4.8 above shows a negative correlation between the poverty levels and the amount allocated. The line is described by  $y = 251,552 - 5258.7x$ . This gives a coefficient of correlation ( $r$ ) of  $-0.067$  with a coefficient of determination ( $r^2$ ) of  $0.0015$ . The  $r = -0.067$  shows that there is negative and weak correlation between poverty levels and the funds allocated. This therefore indicates that poverty level is not a common allocation criterion in the District.



**Verdict:** The low coefficient of determination rules out the use of the above criterion in allocating resources. Therefore this confirms the public choice theory where political class enhance their own well being and thus worsening the welfare of the majority who are powerless and poor. This may worsen the inequities within the district as this amount to working against the spirit of pareto efficiency which calls for improvement of the well being of others without jeopardizing the welfare of others. The inability to improve the welfare of the majority through pareto inefficiencies allows for unjust and unfair system which breach the justice theory.

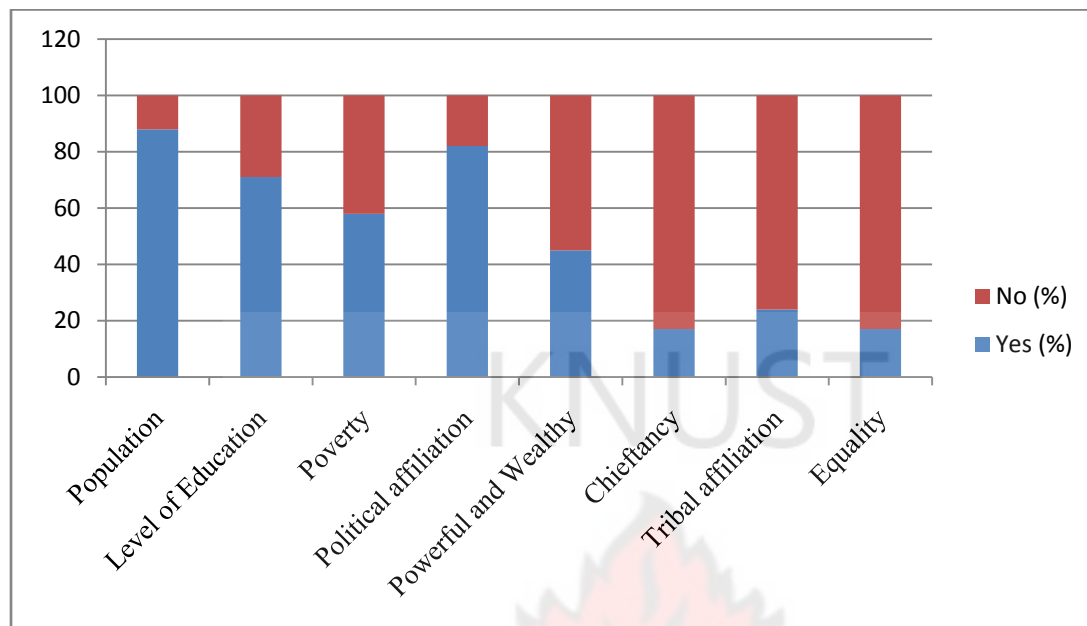
One of the paramount chiefs was said to wield immense power over the allocation of resources as the political class fear and revere him. This might be due to his influence over the voters which politicians are not ready to take for granted. Kenyasi 2 is the home of the DCE, one of the Members of Parliament and also the said revered paramouncy. Therefore, there might be more possibilities as to why Kenyasi have been receiving more funds.

#### 4.5.6 Community Perception on Allocation of resources

In order to understand the community feelings and how they perceive the distribution of resources in the District, their understanding was sought on how the resources are being allocated within the District. Figure 4.9 shows the respondents' view.



**Figure 4.9: Criteria for allocating resources; community perception**



**Source: Field survey, 2011**

Eighty-eight percent (88%) of the respondents indicated that population was an important factor in determining resource allocation in the District. This was followed by political affiliation with 82 % of the respondents stating it is considered in resource allocation. Other determinants were also discovered, 72% and 58% indicated the level of education of a particular place and poverty levels respectively are considered in resource allocation.

The situation on the ground matches the perception and especially the political interplay where it was found out that some health facilities were planned for without the involvement of the Directorate of Health. Some of these perceptions however, have already been disapproved through regression analysis where it was found that poverty levels and population are less considered in allocating the District funds. Despite the population not viewing the chieftaincy as a powerful tool that can be used for rent seeking, the data indicate so and this was also confirmed through key informant interviews.

These findings confirm the public choice theory which accuses the politicians and bureaucrats for promoting their selfish interest on the behest of the public interest. It therefore follows that when allocating resources at the District level, the bureaucrats and the politicians use their own discretion.

The use of non-objective and biased criteria in resource allocation negates the principles of Justice Theory which advocates for just and fair treatment of all citizens. The negation of justice theory means that some people are unfairly treated while others are benefiting from the resources meant for others. Usually, it is the poor who suffer most as their welfare will be jeopardized through deprivation of their basic rights like access to quality health service. These findings are not in conformity with the DA's assertion that distribution of major services is based on community size and population.

#### 4.5.7 Causes of Inequity in health

For better understanding of the causes of health inequities, the study looked at factors hindering access to health care, factors limiting utilization of health care and factors hampering the equity in financing.

##### Factors limiting access and utilization of health care

These are factors that were identified as limiting access to health services. They include the following;

*Poverty* – this limits the ability of the population to obtain quality health care as well as basic health care. While the introduction of insurance scheme is expected to solve this, the ability of the population to become members is explained largely by poverty too. From the field, 14% of the respondents were not insured due to the perceived expensiveness of the scheme.

**Table 4.13: Reasons for non NHIS membership**

	NHIS_Awareness		Area council				
	Yes	No	Dadiesoaba	Goamu	Hwidiem	Kenyasi 2	Ntotroso
Reasons for not being NHIS member	%	%	%	%	%	%	%
Lack of funds	14	0	4	2	2	1	5
Not helpful (am not sick)	0	0	0	0	0	0	0
poor and unreliable services	5	0	0	0	3	2	0
All above	1	0	1	0	0	0	0
Registered with NHIS	79	0	24	9	15	15	17
Proportion not using NHIS per area council			17	18	25	17	29

*Source: Field survey, 2011*

While 100% of the respondents were aware of the NHIS, 79% of them were registered with NHIS. However, 4% of these respondents who are registered with NHIS were inactive members who were instead using the ‘cash and carry method’. Therefore, 25% of the respondents were using cash and carry method to obtain health services. The predominant reason for non registration of NHIS was lack of funds. Unreliability as well as poor services associated with NHIS was also advanced as key reasons. Ntotroso and Hwidiem had the highest proportion of people at 29% and 25% respectively who are not registered with NHIS cash as opposed to 17% of Dadieasoaba as well as Kenyasi 2. This is in harmony with the scenario created by the poverty map as both Hwidiem and Ntotroso are the poorest regions among the 5 Area councils sampled.

**Poor road accessibility** - Most parts of the District rely on feeder roads with a few roads being tarred. This hinders movement and accessibility of vital facilities such as health, education and other social amenities. Inaccessibility of a place means that opportunities for some people are being curtailed while others are enjoying the same services. This brings in the issue of inequities where a section of a population is getting major services while others are reeling in suffering.

The general accessibility pattern of the District can be summed as poor. Only areas around the roads linking Kenyasi 1&2, Hwidiem and Acherensua are termed to be have optimum accessibility and this means that it is very easy to move around these areas. Thus only three facilities are served by good road network as shown in Figure 4.10 below.

The other facilities are served by feeder roads which can be rendered impassable during rainy seasons. These roads are also faced with maintenance problems and there are few passenger vehicles plying some of the routes. Figure 4.10 below depicts the road situation in the District in relation to spatial distribution of health facilities.

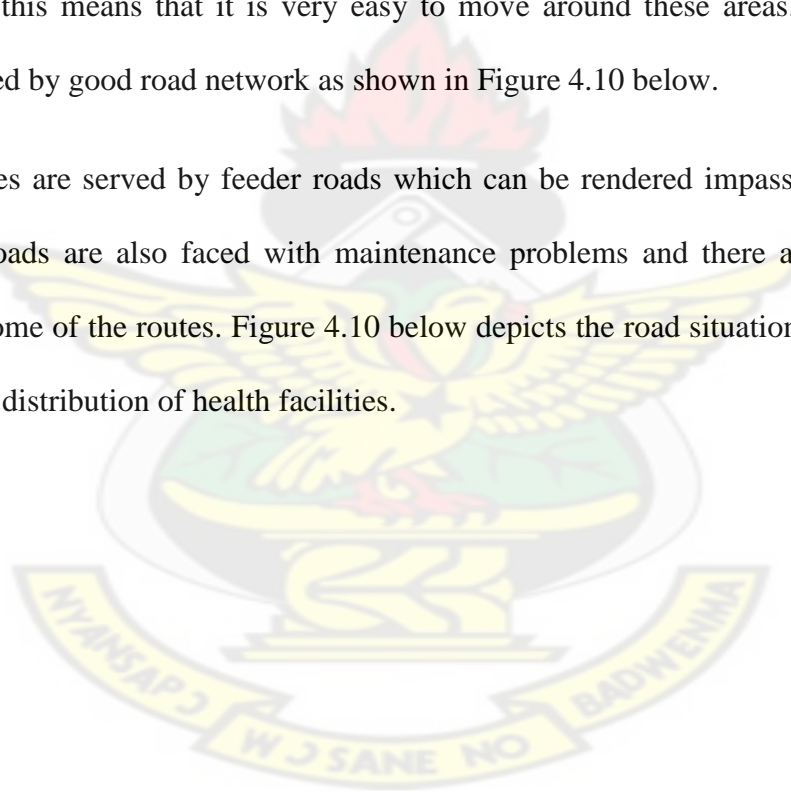
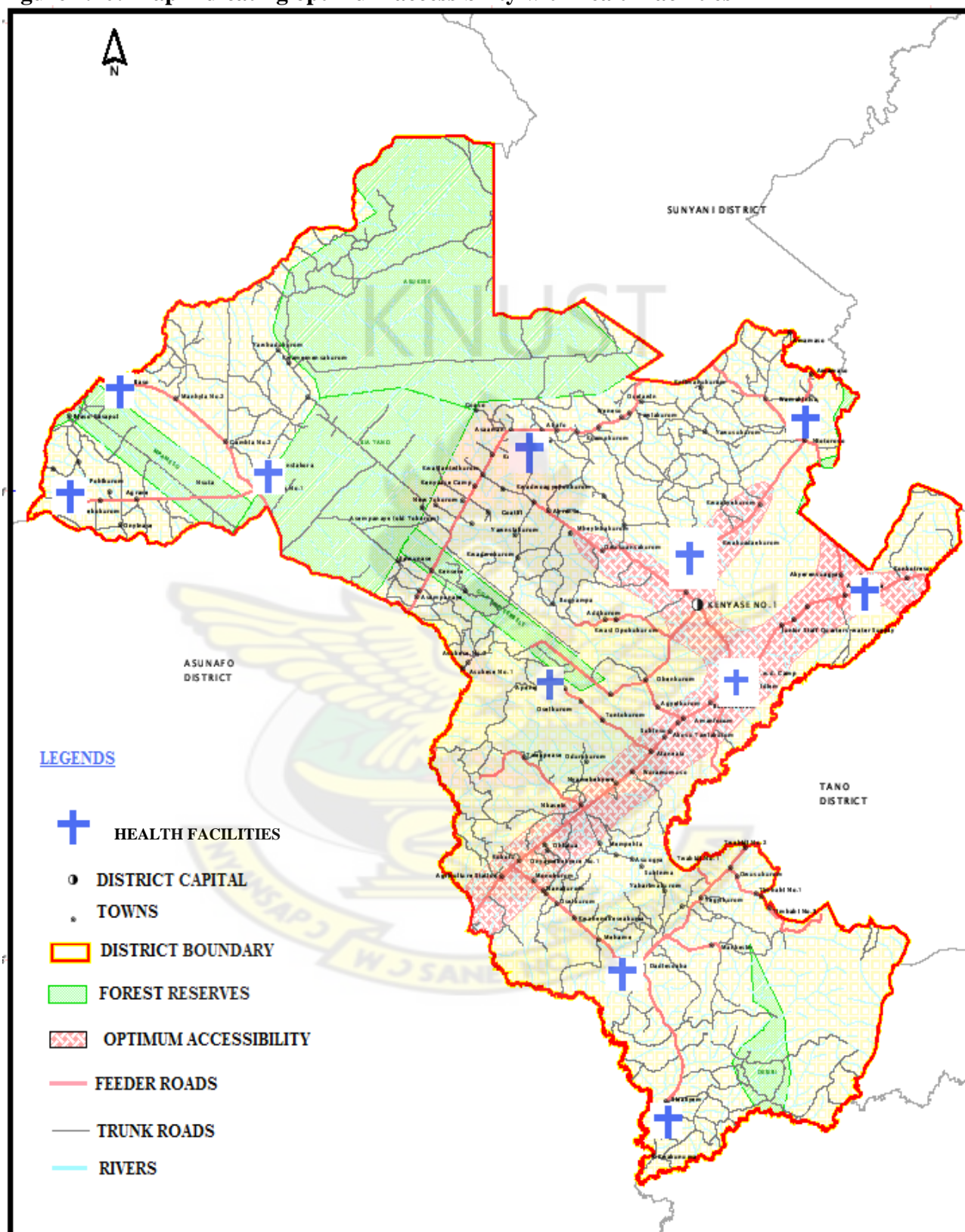


Figure 4.10: Map indicating optimum accessibility with health facilities



Source: NDPC, 2011



**Staff inadequacy;** the high staff gap currently existing in the district is hampering health care delivery; both in access and utilization. Inadequate staff means that efforts to bring closer health care services to the people through construction of new facilities like CHPS compounds cannot be sustainable or feasible.

**Poorly equipped facilities;** some of the health facilities visited lacked basic equipments or facilities to effectively discharge their duties. These include;

- Alternative power source to cater for emergency purpose during frequent power failure.
- Ambulances for emergency services.
- Piped water systems as opposed to dependence on boreholes for use by the facilities.
- Laboratory equipments.

**NHIS limitations** – a number of people questioned the quality of the services being offered at the health facilities when using the NHIS. This tends to discourage the poor from accessing health care through NHIS and even withdrawing from the scheme thus rendering the insurance service unappealing.

#### Factors limiting equity in financing

Health facilities almost wholly depend on the internally generated funds to fund their internal activities. There is no formula hitherto used to allocate resources and most of the times depend on lobbying ability of community members. Political inclination is the single most identified reason that hampers equitable resource allocation. A glaring example was cited where the DA without the knowledge of relevant technical departments plan and put up infrastructures. Though it might be pointed out as based on community needs, such community needs are never prioritized in terms of equity.



Political class is much involved in financing of the district projects. As politicians are not always long term planners, most of their projects financed are to serve certain egoistic interests thus leaving the deserving cases. This is an extension of Public choice theory being affirmed by politicians who always want to serve narrow political interests and a negation of justice theory as the modalities that are usually involved in ensuring just and fair financial allocation are never applied.

#### 4.5.8 General perception on achievement of equity within the District

Table 4.14 below gives a summary of the perceptions of the respondents on issues of equity. From the table, it is clear that 80% of the respondents perceive the work of the local government as being driven by inequitable resource distribution.

**Table 4.14: General perceptions from the respondents**

Perceptions	Meaning of quality service					Satisfaction of health service		
	Less waiting time	Friendly attendants	Competent staff	Relevance of services to patients needs	Well equipped facility	Very satisfied	Satisfied	Not satisfied
Achievement of equity by government	Figures in Percentages							
No	12	12	27	22	7	3	69	8
Yes	1	1	9	7	2	3	16	1

**Source : Field survey, 2011**

In defining what entails quality service in health services provision, 36% of the respondents linked quality services with competent staff. This means that availing competent staff in the health facilities can assist in achieving high utilization of health care services which is critical in

achieving health equity. Another important measure was the provision of relevance services to suit the needs of the patients where 29% of the respondents attributed quality service to this.

Though 80% of the respondents did not approve of the government efforts as set to achieve equity, 91% of them were at least satisfied with the provision of health service delivery. This high satisfaction level means that residents do not put much emphasis on the quality of the services being offered. Despite spending long times to be served and complaints against inadequate staff, these respondents were still satisfied by the health care service provision in place. Therefore, quality of service on offer may not matter much than the mere presence of a health facility within the vicinity of the communities.

#### 4.5.9 Key positive lessons in achieving access and high utilization of health care

**Proper distribution of facilities** – The data collected suggests that health facilities are spatially well distributed though some sections of the population remains largely underserved. As a way of improving access to health, three more CHPS compounds are currently under construction. This will help the communities that are currently underserved by the health services where they have to travel far to obtain these services. The distribution of health facilities is the key factor why the population is satisfied with health care provision.

**Close-to-client services** - There is mobile/outreach services especially to educate and or sensitize the public on some health issues like general hygiene, preventive measures of some diseases, reproductive and adolescent health and other emerging health issues. Emphasis has been put to integrate the Traditional Birth Attendants (TBAs) to the government system by training more TBAs to assist in improving safe deliveries.

**Extending opening hours of health care facilities** – though the opening and closing hours of health facilities is fixed, efforts have been made to ensure that emergency services are attended to especially during the night. The closing hours are also flexible as it depends on the presence of patients in the queue.

**Interventions to change discriminatory attitudes of health service providers** – some health facilities as well as the Directors office hold regular meetings and trainings for the staff on customer/patients care services, rights of the patients and quality assurance. The health facilities also have the patients' charter which binds the attendants from using nasty language to the patients.

**Targeted fee exemptions at public facilities** – free medical care is only limited to a few cases as most of the services are charged. Care for persons above 70 years and antenatal care for pregnant women (to reverse the maternal deaths that were rising) are just but good examples.

**Expansion of medical insurance** – the NHIS have expanded with 79% of the respondents indicating to be currently registered. This service however is not enough and most respondents were not very satisfied with the services that come with it. This can be indicated by the fact that some of the registered members still use a sizeable sum of their earnings to cater for their health needs.

## **5.0 CHAPTER FIVE: SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSION**

### **5.1 Introduction**

This section gives the summary of the findings, the way forward in form of recommendations as well as concluding remarks. The recommendations put forward have taken into consideration the findings and if implemented, will improve equity in health care delivery.

### **5.2 Summary of Findings**

#### **5.2.1 Institutional Setup**

Whereas the government policy is very clear on how to allocate resources, the institutional set up at the District level is usually weak. This weakness paves the way for the manipulation of the systems. The case in point is where the community priorities are set in the District medium term plan but the allocation of funds is left to the whims of politicians. There are legally established institutions but are not active at the ground.

This diminishes local participation and gives way to rent seeking behavior of powerful people and also from the politicians themselves. By bringing political calculations into allocations of funds, the quest of equity is lost as no guidelines are being followed. Much as the statutes call for the respect of the District Medium Term Plan in funding the District/community priorities, the funding priorities is decided single handedly thus eroding the good intentions of the DMTDP.

#### **5.2.2 Health equity: Factors promoting and or hindering health equity**

**Accessibility and distribution of facilities** – where as the health facilities are spatially well distributed, the inherent sparse distribution of communities makes them more and largely underserved. Some communities remain cut off from the health care provision due to vastness of

some areas. This makes the high coverage of the population by the health facilities just but a number as some areas exhibit low population densities with some communities too small to warrant a health facility.

**Inadequate technical staff;** it is worthy to note that most health facilities are seriously under served by the health personnel thus jeopardizing the provision of health care. This can be seen where some health facilities are being managed by midwives. This is being exacerbated by construction of new facilities as existing staff working within the District might be required to work in the new structures. This staff inadequacy brings inequities in service provision as some areas will be deprived of services to the disadvantage of others. This allows the patients to move from their areas to other far places in search of medical care.

**Provision of mobile/outreach services** – This increases the coverage and accessibility of basic services as well as help prevent and curb spread of major diseases through sensitization programs. With this service, people with low education on health matters will benefit from the service thus bridging the information gap between the illiterate or the disadvantaged groups and the literate ones.

**Integration of community skills to Health system** - Emphasis has been put to integrate the Traditional Birth Attendants into the government system by training more TBAs towards improvement of safe deliveries by pregnant women thereby reducing maternal deaths. The idea of CHPS have helped integrate community ideas into health system and thus for every CHPS compound, there is a trained TBA. Currently, there are five recognized TBAs in the District.

**Interventions to change discriminatory attitudes of health service providers** – to improve the quality of health care provision, training of the health staff has always been undertaken to change the attitudes of some health staff towards the client.

**Targeted fee exemptions at public facilities** – The introduction of free health care in 2008 for all pregnant women was the right decision to achieving equity in service provision. This is because the service fees charged in health facilities used to lock out poor mothers from accessing health care.

**Insurance Scheme** – Currently, health facilities now depend on insured clients to earn their IGF and improve their facilities. However, there are always long delays in reimbursing the costs incurred by the client to the health facilities. Therefore quality of good health care is jeopardized by these delays which usually take more than three months.

Moreover, the insured clients seems to be losing faith in the insurance scheme as there are complaints of poor quality of health care to the holders of NHIS as opposed to those who uses cash to settle their bills. In order for the health facilities to remain afloat due to long delays in reimbursements by the NHIS, those in charge of the health facilities are encouraging people indirectly to use cash by offering them unparalleled services.

The positive side of the NHIS is that it has enabled clients to have many opportunities to choose from. This is because they can now access any facility whether private or public. For example, apart from the one private facility which is yet to meet the guidelines and standards to be engaged with NHIS, all the facilities in the District are NHIS compliant. Therefore, due to inherent problems crippling the public sector like lack of personnel and right medication, private facilities have become very prominent with the insured patients.



The fact that only a section of the population are members of the NHIS makes the scheme unfair as everyone ought to be a member as they pay taxes mandatorily.

As the NHIS follows a progressive tax system where those with higher income pays more premium than the poor, majority of the registered members indicated that they are paying same premium. This shows that the poor are paying more and thus making the insurance system regressive as opposed to progressive as it is required. This in itself is inequitable and a punishment to the poor.

### 5.2.3 Equity in financing of Health care and allocation criteria of health resources

The financing of health care needs in the District is far from reality. The number of staff needed for the facilities to operate normally is high. The financing of health projects and programs in the District is usually undertaken both by the DA through the DACF and by the respective health facilities through its own internally generated funds (IGF). While district funds lack the basic criteria to administer the funds in an equitable manner in space, the funding from the health facilities (through NHIS) are prone to delays and are often unreliable. The funding from the DACF allocates a specific percentage to health sector and also to other sectors. The funds, however, are most of the times planned and expended without the knowledge of the Director of Health who is responsible for general management and operationalization of the health structures.

The funding from the line Ministry has been diminishing over time due to perceived success of the NHIS and thus the District Director of Health does not allocate any kind of funds. The Director of Health approves the written requests of funding from the facilities which are allowed to use the IGF from their facilities to improve the facilities.

The IGF from the health facilities is thus prone to inequities as it will depend on the existing quality of services which attract clients and also the inherent poverty of the residents. A health facility providing low quality service may be due to lack of personnel, risk being shunned and also if the majority of clients are not NHIS members, then dependence on IGF for facility improvement may not help.

#### 5.2.4 Causes of inequitable allocation of resources

The following factors were identified as causing inequitable allocation of resources;

**Institutional failures** – where the supposed mandated institutions are either not in place or ineffective due to inadequate staff and lack of political will. The collection of IGF is affected by lack of political will in mobilizing resources and inadequate logistics and staff necessary for undertaking this activity. Nonfunctional Area council committees and unit committees, ineffective DPCU and too much political clout over the decentralized departments are playing a big role in inequitable allocation of resources.

**Political and powerful forces;** the fact that the District Assembly is led and managed by politicians makes the whole process of funds allocation ineffective and prone to lack of transparency. The DCE most of the times is engaged in political supremacy with one of the Area Member of Parliament and chances of using his position to settle political scores are high. Also, some of the traditional chiefs were also said to be rich and powerful and have been swaying the allocation of resources to their areas.

**Criteria Based Allocation absent:** Lack of clear cut allocation principles on how the funds from the Central Government are supposed to be spatially distributed at the District. Whereas the funds from the central Government comes with some breakdown on how the sectors are to

benefit and also according to community needs, it is still unclear on how such funds or sectors can be distributed in space. This gives room to the politicians to decide on where to place such funds.

### **5.3 Key findings**

Equity in public resources seems to be limited to distribution and allocation of resources from the National to District level as they are based on well designed criteria that take into consideration various aspects. Most of the decisions being taken at the District level are by default and have not been planned to achieve equity in service provision. This can be attributed to lack of data within the District, lack of guidelines and weak institutions and strong political influence in decision making at the District level. This also signifies a gap between the policy and the practice at the district level.

Physical accessibility of health facilities depends largely in the provision of road infrastructures. This will ensure that those living beyond 2 km from a health facility can access the facility with ease. Thus health facilities cannot exist on its own as it depends on other infrastructures. This will help especially those areas with dispersed communities where they cannot meet a minimum threshold of a health facility taking into account efficient use of resources.

NHIS is based on the ability to pay and not health for all - despite the fact that every citizen living in Ghana pays tax part of which forms insurance, a sizable proportion of people are either unregistered or do not renew their membership. Therefore, despite the Ghana policy of Health for All, the situation on the ground is different. This brings inequity between the rich and the poor in health provision.

Health equity in the District and perhaps in the country is focused in funding and not staffing. There is a mismatch between the health personnel who are central government employees and the funding level at the District. Thus any effort of achieving equity in financing of new facilities to improve accessibility proves futile as it is not matched by corresponding staffing levels. This is a coordination problem and shows the extent to which decentralization in the country is yet to pick up. Provision of health for all cannot be only provided through provision of physical facilities but should be matched with provision of human resource.

The role of the decentralized departments in decision making within the District Assembly has been diminished by local politicians and their technical advice is either disregarded or not sought. New health facilities though are needed is set to increase inequities by depriving the district resident's quality health care. The proposed new facilities, though are based on good intentions is set to widen the inequities in health as some health staff will be needed to run them. This is despite the fact that currently, the District is understaffed to an extent that some facilities are managed by unqualified personnel.

Due to listing of the private health facilities in the National Health Insurance Scheme, pressure in the utilization of public health facilities have reduced. People associate private health facilities with quality health care.

#### **5.4 Implications of the findings to the theories**

The net effect of the inequities observed means that the public choice theory is at play where the politicians and the bureaucrats have no public interest at heart. This thus leads to unjust and unfair allocation of resources as those in authority have personal interest in whatever they are undertaking thus implying that justice theory is not working.

Therefore, the capabilities of the population to maximize the available opportunities as well as lead life of their choice are curtailed. Citizens are divided into classes where the person's life is determined by predetermined circumstances such as political leanings. Therefore, according to welfare economics, the state (or those in authority) as an alternative to market, has failed in ensuring fair distribution of resources as well as in promoting social welfare.

## **5.5 Recommendations**

Redress shortages of staff and constant medical supplies in some health facilities. Staffing should match provision of infrastructures and institutions that have been put in place. This can best be done through better coordination of activities within the various government bodies. Involve departments in key decisions as they are the technical people on the ground. There is a need for proper coordination between the local assembly members and technical departments. The General Assembly should first seek their input when making important decisions involving their respective sectors like construction of new health facilities. Give more say to the decentralized departments so as to provide credible and issue based decision making

Institutions strengthening; the DA should strive to establish inexistent institutions and activate the existing ones for effective participation in their roles. The legally established institutions need to be revamped so that they can play their roles in ensuring that there is equitable resource allocation within their contexts.

Move from current system to health system for all. There is a need to improve the NHIS service so as to make it free and compulsory for all. This is necessary as each Ghanaian citizen is paying tax. The Ministry of Health must strive to fulfill its own promise and aspiration of free health for all by ensuring that all citizens are enjoying access and quality health care through NHIS. To



achieve health equity through health for all, there is a need to address the issue of the rich paying same amount of premium with the poor as this defeats the justice theory by closing the loopholes that give way to the rich to pay same premium as the poor. NHIS should move to ensure timely release of clients' funds to the health facilities so that facilities can easily make use of the funds without jeopardizing provision of health care.

The District Health Directorate with other stakeholders should educate people on the importance of the NHIS so as to improve the membership and also reduce the increasing non renewal cases. To gain confidence of the public in NHIS, the quality of health care to the NHIS card holders should be improved. Thus health personnel should not propagate use of cash and giving much attention to those using cash to the disadvantage of NHIS members.

There is a need for the NDPC to provide guidelines to assist in sharing resources at the District level. This is to avoid political calculations that are currently the norm. This should be based on the criteria that are being used at the national level when sharing funds to the various MMDAs. The current system is not tenable to eliminating inequities that are inherent within the Districts.

Health sector cannot succeed alone and thus achieving equity in allocation of resources should be multi-pronged. It should also include provision of other related opportunities like education so as to make people make informed decisions and choices in life and road infrastructures to make marginalized places and people make choices on where to seek services as well as making them accessible to quality services. The central government as well as the DA should take a lead in this aspect.

Human resource development should be given priority in the country. To retain the existing staff and also attract new ones, DA should put more efforts in putting incentives for them. This can be



through ensuring all health facilities have staff housing and also providing motor bikes to those in inaccessible parts of the District. Improving road infrastructure in and out of the health facility for all facilities can boost the morale of the health staff. There is a need to increase the number of TBAs so that at least each facility has one TBA. This will help pregnant mothers to access safe delivery during emergency situations.

## **5.6 Conclusion**

The concern of many governments is how to achieve equity by bridging the existing gaps between the rich and the poor. Access to quality health care for the poor and marginalized remains a mirage in many countries and thus the role of the government in ensuring health care for all, therefore cannot be over emphasized. Inequity in health, both as unfair and unjust differences among socio-economic groups and also as unequal opportunities between population classes pose as the greatest challenge in achieving the MDG goals. Inequities also serve to deprive individuals from achieving their potentials.

Health inequities within the Districts should be made a priority. It will not serve any purpose to try to eliminate inequities between regions and MMDAs without taking into consideration what is taking place at the MMDAs. A follow up on the resources released to the MMDAs should be done to ensure they serve the purpose for which it was meant and not to serve political interests as proclaimed by the public choice theory.

As a substitute to market mechanism, the government intervention in provision of health care or any public services should be felt across board by all. The government has an onus of ensuring that each taxpayer is treated with utmost dignity that he/she deserves. By ensuring equal opportunity to each citizen, the government will be able to improve their life capabilities.

## BIBLIOGRAPHY

- African Development Fund, (2005), Ghana Country Strategy Paper (2005-2009); Country Department, West Region, AFD, Tunis.
- Asutifi District Assembly, (2010), District Medium Term Development Plan (2010-2013), District Planning Coordinating Unit, Kenyasi.
- Bannerman, C., Tweneboa, N. A., Offei, A., Acquah, S. D. (2002), Health Care Quality Assurance Manual. Ghana Health Service.
- Birdsall N. (2003), *Why It Matters Who Runs the IMF and the World Bank*. Washington DC, Center for Global Development. <http://www.cgdev.org/docs/> assessed on December 2010.
- Bouquet, Emmanuel, (2005), equity and Human Development, Paris. [www.iddri.org](http://www.iddri.org) (assessed December 2010).
- Braveman, P. (2006), Health disparities and Health Equity: Concepts and measurements. Annual Reviews, San Fransisco. <http://www.ops.org.bo/textocompleto/riarph270004.pdf>. (assessed on January 2010)
- Carrin G, Evans D, Xu K. (2005), Designing health financing policy towards universal coverage. Bull World Health Organ.
- Diaw Kofi (1996), The Challenges of decentralization: The experiences of Ghana in W. Kombe and V. Kreibich, 1997, Decentralized development and prospects of planning in Africa, Spring Research series (20), SPRING centre, Dortmund.
- Flyvbjerg, Bent (2006). “Five Misunderstandings about Case-Study Research.” *Qualitative Inquiry*, Volume 12 Number 2. Sage Publications. <http://qix.sagepub.com/cgi/content/short/12/2/219>. (Accessed December 2010).
- Ghana Health Demographic Survey, (2008), Macro Internaational Inc, Maryland USA.
- Government of Ghana (2002), Partnerships for health: Bridging the Inequalities Gap, 5-Year Programme of Work (2002-2006), Ministry of Health.
- Government of Ghana (2005), Growth and Poverty Reduction Strategy (GPRS II) 2006-2009, National Development Planning Commission, Accra.
- Government of Ghana, (2009), Annual Report, Ghana Health services, Accra.
- Government of Ghana, (2010), Independent Review; Health Sector Programme of Work 2009, Ghana Health Services, ACCRA.

- Gyapong, J., Garshong, B., Akazili, J., Aikins, M., Agyepong, I. and Nyongator, F. (2007). Critical Analysis of Ghana's Health System with a focus on equity challenges and the National Health Insurance. *SHIELD Workpackage 1 Report*.
- International Society for Equity in Health, (2006), Equity and health sector reform in Latin America and the Caribbean from 1995 to 2005: Approaches and limitations, Toronto.
- Jones, H. (2009), Equity in Development. Why it is important and how to achieve it. Overseas Development Institute, London.
- Land Use Planning and Management Project (2010), Planning Standards, Accra.
- Mack, Natasha, Cynthia Woodson, Kathleen MacQueen, Greg Guest and Emily Namey. (2005), *Qualitative Research Methods: A Data Collector's Field Guide*. USA: Family Health International.
- National Development Planning Commission (2009), Guidelines for the Preparation of the District Medium Term Development Plan under the Ghana Shared Growth and Development Agenda (2010-2013), NDPC, Accra.
- NDPC, (2010), Ghana Millennium Development Goals report, UNDP, Accra.
- Niskanen, W.A. (1973), *Bureaucracy: Servant or Master?* London: Institute of Economic affairs.
- Poteete A. R., (2004), Is Decentralization a reliable means of increasing equity? New Orleans, Los Angeles.
- Richard C. Houseman, John D Hatfield, Edward Miles, (1967), new perspectives on equity theory: The equity sensitivity construct, University of Georgia.
- Sen, Amartya, (1998), possibility of social choice, trinity college, Cambridge. Nobel Lecture on December 8, 1998.
- Soy, Susan. (1996). "*The Case Study as a Research Method*." Unpublished Paper, University of Texas at Austin. <http://www.ischool.utexas.edu/~ssoy/usesusers/l391d1b.htm>. (Accessed January 2011).
- Stake, Robert. (1995). *The Art of Case Study Research*. USA: Sage Publications, Inc.
- Todaro, Michael P. and Smith Stephen C., (2009), Economic development, Pearson Education Ltd, Essex England.
- Trochim, William M.K. (2006). *Qualitative Methods*. <http://www.socialresearchmethods.net/kb/qualmeth.php>. (Accessed: December 2010).
- Tsepko A. Jebuni C. (2004), Budget implementation and Poverty reduction in Ghana. Accra.

UNDP, (2007), Concepts and Measurement of Human Development; Workshop notes delivered in Nairobi, Sept 2007.

UNDP, (2007), Ghana Human Development Report: Towards a more inclusive society, UNDP Accra.

UNDP, (2010), Human Development Report: Real Wealth of the Nations: Pathways to Human Development, Newyork, Palgrave Macmillan. [www.hdr.org](http://www.hdr.org) (assessed January 2011).

United Nations Economic Commsision for Africa, (2009), Mainstreaming Health equity in the Development Agenda of African countries, UNECA, Addis Ababa. [www.uneca.org](http://www.uneca.org) (assessed December 2010).

World Bank, (2006), World Development Report: Equity and Development, World Bank and Oxford University Press, Newyork. [www.worldbank.org](http://www.worldbank.org) (assessed November 2010).

World Health Organization, (2000), Equity in access to public Health, WHO, NewDheli.

Yin, Robert K. (1994). *Case Study Research: Design and Methods*, 2<sup>nd</sup> ed. London: Sage Publications, Inc.

Brosio G. (n.d), Fiscal Decentralization and equitable Development.  
[www.businessbills.com/adamsequitytheory.html](http://www.businessbills.com/adamsequitytheory.html) assessed January 2011

Gale Encyclopedia of Public Health: [www.answers.com](http://www.answers.com) assessed Jan 2011.

<http://cneo.net/study/RawlsTJ.pdf> Assessed February 2011

(<http://webs.wofford.edu/kaycd/ethics/justice.htm> Assessed February 2011

<http://uneca.org> assessed January 2011.

# KNUST

## **LIST OF APPENDIXES**



**Appendix 1: Household Questionnaire**

Area council \_\_\_\_\_

Health Zone .....

Name of the Interviewee .....

Date of Interview \_\_\_\_/\_\_\_\_/2011

Age of respondent .....

Sex of respondent

☐ M☐ F

Name of community.....

1. Educational level attained (Household head)

Primary ( ) Junior secondary ( ) SHS ( ) Tertiary/University ( )  
None ( )

2. Employment Status

Employed ( ) Unemployed ( )

3. How did you choose your place of residence?

Close to road ( ) Close to water( ) Proximity to Health facility( ) Proximity to  
education ( ) Proximity to Town centre ( ) Given/inherited/ Ancestral ( ) .  
Other(s)-specify ( )

4. What is the monthly income available for the household?

Source	Agric	Business	Gov't service	Remmittances	Industry	Other (specify)	Total
Amount in GH¢							

5. On what and how much do you spend your income per month on these specific spending/items/services/commodities?



Item/Services	Amount per month
Food	
Clothing	
Rent	
Health care	
Education	
Savings	
Others (specify)	

6. Which type of health facilities do you have around? State whether private or public. (Tick where appropriate)

Type	Public	Private
Hospital		
Health Centre		
Clinic		
Other-specify		

7. What is the distance to the nearest Health facilities from your house?

( ) Less than 1 KM ( ) Between 1-2 KM ( ) Between 2.1-4 KM ( ) Between 4.1-9 KM ( ) more than 9 KM

8. By what means do you get to the nearest health facility?

( ) Walking ( ) Private vehicle ( ) Passengers/public vehicles ( ) Other(s)-specify

\_\_\_\_\_

9. How long does it take to reach the health facility using convenient means identified above?

( ) Less than 30 mins ( ) Between 31-60 mins ( ) Between 61 min-2 hours ( ) Between 121 mins - 4 hours ( ) More than 4 hours

10. When one falls sick in your household, what is the first point of treatment?

( ) Public Hospital ( ) Private facilities ( ) Traditional practitioners ( ) Self medication ( ) Others \_\_\_\_\_

11. What informed your choice of the above (Q 10)?

☐ Cost ☐ Proximity ☐ Quality services ☐ Only available means ☐ First aid/Severity of the problem ☐ Others \_\_\_\_\_

12. What do you associate with the quality services?

☐ Less waiting time ☐ Friendly attendants ☐ Competent staff ☐ Relevance of services to your need ☐ Well equipped facility ☐ others – specify\_\_\_\_\_

13. How long do you wait on average to be attended to in a public health facility that you normally attend?

☐ Less than 30 mins ☐ Between 31 -60 mins ☐ 3. Between 61 Mins-120 mins ☐ 4. Above 2 hours

14. Do you think the level of staffing/health personnel in your nearest health facility are enough?

☐ They are adequate ☐ They are inadequate

15. What problems do you encounter in the public health facilities that you have attended within the District

\_\_\_\_\_

16. Are you aware of the existence of National Health Insurance Scheme? No ☐ Yes ☐

a) If yes, have you registered? No ☐ Yes ☐

b) If No, why have you not registered?

\_\_\_\_\_

If registered, are you able to use the scheme in all the facilities around you? No ☐ Yes ☐

17. How satisfied are you with the of the service of the public health facility that you access in terms of the following;

Indicator	Very satisfied	Satisfied	Not satisfied
User friendly (situated away from insecure areas and polluted environment, respect of privacy, friendly staff)			
Availability of drugs supplies and basic equipments			

Working hours (opening and closing time)			
Efficiency and competence of staff			
Affordability of services			
Relevance of health services delivered to your needs			

18. How do you rate the performance of government health services in the last 5 years?

1. Improving rapidly
2. Improving slowly
3. Stagnating
4. Deteriorating

19. Do you think the government is achieving equity in resource distribution in the country?

( ) No ( ) Yes

20. State your reason(s) for your answer above (Q 20)

---



---



---

What do you think influence decision making in resource allocation at the District level?

Criteria	No	Yes
Population		
Poor areas		
Political affiliation		
Powerful/wealthy people		
Chieftaincy		
Tribalism/clanism		
Equality/each area is receiving equal amount of resources		
Level of education of the people/literacy		

21. Do you seek medical attention outside the District? ( ) Yes ( ) No

22. If Yes, what are the reasons for seeking health services outside the District?

---



---

## Appendix 2: Questionnaire for Health Staff (In-Charge)

Name of Health Institution

Name of the area council

Name of the zone

Community Name

Position of respondent

Date of interview

1. How long have you been working in this health facility?

What facilities/equipments are unavailable

2. When (year) was the facility established?

3. What are the measures that have been put in place to ensure that they are available

4. How many health personnel are there in the facility?

Doctors.....

Nurses.....

Others

5. On an average, how many patients are attended to in a day? \_\_\_\_\_

6. Are the health professionals/personnel adequate to cater for the need of the population?

( ) Yes ( ) No

7. If No, how many and of what cadre are still needed to bridge the gap?

8. If no, then what do you think are the reasons behind the inadequacy of the health personnel/staff?

9. What are the services provided by the health facility?

---

---

---

10. How do you compare the services provided by your facility with other facilities in the District?

( ) Same service ( ) We provide adequate service unlike the rest ( ) Our service is inadequate unlike the rest

11. If services are not the same, what do you think are the reasons as to why some health facilities provide more health services than the others?

---

---

---

12. What are the procedures to follow while seeking resources or support (financial or human) from the government?

---

---

---

13. What are top ten diseases prevalent in this area?

---

---

---

14. Are there challenges in curing or preventing these disease?

---

---

---

15. What informed the choice of your area or location of work?

---

---

16. How do you perceive equity in provision of health facilities or services in the District?

---

---

17. What is the catchment area of this health facility?

---

---

How do you ensure quality health care delivery in terms of:

Staff to client/patients relation? \_\_\_\_\_

---

---

Waiting time \_\_\_\_\_

Equipments and other infrastructures? \_\_\_\_\_

Adequacy of staff? \_\_\_\_\_

Non discrimination of patients? \_\_\_\_\_

---

---

23. What are the challenges faced by the facility in its service provisions? \_\_\_\_\_

---



## Appendix 3: District Assembly/Health Director Interview Guide

**Designation of respondent** ..... **Date of Interview** .....

**A Study on achieving equity in public resource allocation: health equity in Asutifi District.**

*Definition of health equity: Equity in health is achieved through minimizing avoidable inequalities in health and its determinants between groups of people who have different levels of underlying social advantage or privilege. For example equity in health can be achieved by addressing the avoidable inequalities that exist between the rich and the poor or between the urban and rural population. This study focuses on improving equity in accessing, financing and utilizing health services.*

**Section I (General/Introductory)**

*This Section deals with general information on the treatment of health equity in the district development or Poverty Reduction Strategies or district planning.*

1. To what extent is equity an important issue in the district?  
(Very important; Some what important; Not important.) Please elaborate:

---



---

2. Has equity or health equity been a concern in past District development plans (Sectoral Plans)? Yes or No

3. Does the current Development plan or sectoral (Health) Plan address the issues of health equity? Yes or No

4. If yes in (3), please indicate the aspects of health equity that are highlighted in the District development plan (or Health Sector plan/policy).

---



---

5. What are the constraints faced by your district in implementing the strategies for promoting health equity?

---



---

6. In your opinion, how can these constraints be addressed?

---



---

7. Is there an institutional framework that supports promotion of equity in health in the district?  
eg. An Assembly committee; Health committee?

---



---

What legal provision exists or that can be used in the district to promote health equity?

---



---

8. Does the country have any of the following health equity strategies? For each strategy please provide an assessment of the impact of the strategy in improving equity in accessing health services using this ranking order (1= low, 2= average, 3=high)

<b>Equity goal</b>	<b>Interventions being implemented to address health inequities</b>	<b>Yes/ No</b>	<b>Please provide an assessment of the impact of the strategy in improving health equity 1= low, 2=average, 3=high</b>	<b>Please provide justification for your ranking</b>
Equity in access to health care services	Expansion of the health services to remote areas			
	Basic or essential health package for improved coverage eg. building more clinics			
	Community health worker schemes Expansion in human capital in health			
Equity in utilization of health care	Targeted fee exemptions at public facilities.			
	Free health services			
	Expansion of National Health Insurance			
	Community mutual Health Insurance			
Equity in resource allocation	Financial decentralization			
	Improved health resource allocation for improved equity. Eg. inclusive			

	resource allocation formula to address regional disparities.			
--	--	--	--	--

9. In your view, do you think that promoting health equity will contribute to accelerating progress towards the targets of the health Millennium Development Goals in the district and the country? ( ) Yes ( ) No

10. (a) If yes, how does health equity contribute to attainment of MDGs?

---



---

(b) If no, why do you think health equity cannot contribute to MDGs?

---



---

11. What Criteria does the district use in allocating financial resources to its substructures or to the projects?

---



---

12. How does DA and decentralized ministries (Health) collaborate to ensure equity/fairness in resource allocation

---



---

12. Is the district population well covered by the health facilities?( ) Yes ( ) No

13. If not well covered, how many health facilities are needed to meet the needs of the whole district?

---



---

What are the roles of politicians in allocation of resources?

---



---

14. Do these politicians influence public service delivery and equity promotion? ( ) Yes ( ) No

15. Are all area council covered adequately in the provision of health service? ( ) Yes ( ) No

16. If No, which area councils are under served by the health service provision?

---

---

17. What reasons explains the difference in the provision of health service provision in the different area councils?

---

---

18. How many people are registered with NHIS?\_\_\_\_\_

19. What hinders the achievement of 100% registration of district population as members of NHIS?\_\_\_\_\_

20. How many health facilities offer services through NHIS?\_\_\_\_\_

21. What is the proportion of district population that is accessible to health facility? (living within 30 minutes from the health facility.)

---

---

22. Are all diseases treated or cured within the District? ( ) Yes ( ) No

23. If No, where does the district take the patients as referral points?

---

---

Are the health personnel adequate and what are the breakdown and number of existing staff?

---

---

24. In comparison to other districts, do you think Asutifi District is better off than the neighbouring Districts or worse off in terms of health service provision?

---

---

25. How much funds have you received in the last 5 years for the health sector and their distribution?

---

---

26. What is the status of the health outcomes in each area council; Under five Mortality rates, Maternal Mortality rate and Births attended by skilled personnel,

KNUST

