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ACCESSIBILITY TO AND UTILIZATION OF PRIMARY HEALTH CARE IN THE GA, DANGME EAST AND DANGME WEST DISTRICTS OF THE GREATER ACCRA REGION

BY

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THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF PH.D DEGREE IN GEOGRAPHY AND RESOURCE DEVELOPMENT

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GOD MOVES IN A MYSTERIOUS WAY HIS WONDERS TO PERFORM; HE PLANTS HIS FOOTSTEPS IN THE SEA, AND RIDGES UPON THE STORM.

WILLIAM COWPER

(1731-1800)

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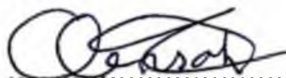
DECLARATION

I hereby declare that, except for references to other people's work which have been duly acknowledged this work is the result of my own research and that it has neither in part nor in whole been presented elsewhere for another degree.



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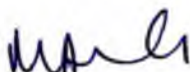

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DEDICATION

Dedicated to the glory of the Father, the Son and the Holy Spirit, and to my parents, the late Mr. John K. Abakah and Mrs. Joana Abakah; and to my darling husband, Mr. Eric Nii Yarboi Mensah.

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While I sincerely share the credit for this work with all the people mentioned above, the responsibility for any short-coming is solely mine.

Charlotte Monica Mensah

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ABSTRACT

The study examined the accessibility and other socio-economic forces that influence the utilization of primary health care services in the rural parts of the Greater Accra Region of Ghana. Three administrative districts, Ga, Dangme West and Dangme East, were selected for study. Both qualitative and quantitative data were used. Questionnaire and interview schedules reinforced by focus group discussions and observations, were the main research instruments. Descriptive and multivariate techniques are the analytical tools.

The main factors that influenced utilization as established by the empirical research, have been income, distance, transport and service costs, waiting and travel times, educational status in the analysis. The researcher establishes that, the main factors that influence utilization of primary health care services in the rural parts of Greater Accra Region are income and distance. The other factors are service costs, transport cost and waiting time. Income shows a positive relationship with utilization, whilst service cost exhibits a negative relationship to validate the hypotheses. Income makes a stronger impact than distance, service cost and waiting time. The impact of education, though statistically significant, is weak.

There were differences by place of residence, and also by health status (patient and non-patient). With regard to income, the impact at the Ga District is stronger than that of the Dangme West and Dangme East Districts, whilst non-patients are more affected than patients. With regard to distance and utilization, the Dangme East and Dangme West Districts show a stronger negative impact than the Ga District, whilst the impact of patients is stronger than non-patients. Waiting time and service costs have a greater impact in the Ga District than in the Dangme West and Dangme East Districts. For health status, patients are more affected by distance than non-patients.

Several recommendations have been made to enhance utilization and the quality of health and health care. These include among others the strengthening and upgrading of primary health care facilities in the rural districts, improvement of the quantity and quality of medical and paramedical staff and the introduction of a National Health Insurance Scheme.

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ACRONYMS

AMA	Accra Metropolitan Assembly
BCG	Bacillus Calvette Guverin
CDR	Committee for the Defence of the Revolution
CHNs	Community Health Nurses
CWC	Child Welfare Clinic
DHA	District Health Administration
DHMT	District Health Management Team
DHT	District Health Team
DPCU	District Planning Coordinating Unit
DPT	Diphtheria, Pertussis, Tetanus
EPI	Expanded Programme on Immunization
GAR	Greater Accra Region
GDHS	Ghana Demographic Health Survey
GLSS	Ghana Living Standards Survey
HIV	Human Immuno-deficiency Virus
IUD	Intra-uterine Device
MCH/FP	Maternal and Child Health and Family Planning
MOH	Ministry of Health
NDC	National Democratic Congress
NID	National Immunisation Days
OPD	Outpatient Department

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OPV	Oral Poliomyelitis Vaccine
PDC	People's Defence Committee
PHC	Primary Health Care
SAP	Structural Adjustment Programme
SRN	State Registered Nurse
TBA	Traditional Birth Attendant
UNESCO	United Nations Eduacational, Scientific and Cultural Organization
UNICEF	United Nations Children Fund
WHO	World Health Organization

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CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

The concern about good health is a universal issue. Health remains a critical situation in sub-Saharan Africa. Many people still die from preventable diseases such as diarrhoea and malaria (WHO, 1998). Malaria has been responsible for 20,000 deaths in children under five years old annually in Ghana (UNICEF, 2003). Millions of others waste away due to poor sanitation and unclean water. Infant and maternal mortality rates are still high (UNICEF, 2002). About 76 percent of the countries with high infant mortality rates are in sub-Saharan Africa. The risk of maternal death for African women is one in 20, but for developed countries, the risk is one in 10,000 (UNICEF, 2003).

In developing countries, medical facilities are not adequate to promote qualitative health care. Most governments in these developing countries are unable to provide sufficient health care for their people because of financial and economic challenges (Okojie, 1994). Hospital based medical care is expensive yet it fails to reach the majority of the population particularly in rural areas. At a historical meeting organized by WHO and UNICEF in 1978 in Alma Ata, USSR, all participating nations of the world agreed to obtain health care for all by the year 2000. This was to be achieved through the strategy of Primary Health Care. The Declaration of Alma Ata defined Primary Health Care as "essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally acceptable to individuals and families in the community through their full participation and at a cost that the community and the country can afford to maintain, in the spirit of self-reliance and self-determination" (WHO/UNICEF, 1978). Components of PHC include health , education, water, sanitation, agriculture and related economic development activity. PHC was to be

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an integral part of the health policy of Ghana. The Ministry of Health had drawn its own strategy for PHC as far back as 1977 (Adjei, 1984).

In rural areas, there are few health institutions. They are located in such a way that some sections of the population are far away from them. Accessibility to health facilities is important for their effective use (Phillips, 1990). The poor transport network in the rural areas of developing countries serves as a barrier to accessibility. Roads linking health institutions and rural settlements especially, are in deplorable state and distances tend to be long. This difficult situation places on such communities high transport costs that they cannot afford.

Spatial accessibility rests on four principal factors of distance, intervening obstacles, transport cost and transport time. In developing countries, there is a relationship between the distance a patient covers from home to hospital or health centre and the use made of it; the greater the distance, the lower the utilization (Buor, 2002). Distance and transportation factors per se, however, do not offer comprehensive explanation of hospital attraction and service areas. Physical accessibility cannot be considered isolated from super structures like socio-economic, cultural, religious and even political factors. UNICEF (2002) has reported that, there is a well-established correlation between income and health status. Countries with incomes above average have better access to high quality foodstuffs and quality medical services (UNESCO, 1980).

Rich people can afford high cost of medical care, but the poor suffer financially. It is also a fact that in the developing countries, the formally educated patronize the hospitals more than the uneducated, and that the urban population tends to patronize more than the

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rural (Buor, 1988). Whereas the formally uneducated with financial means may tend to rely on traditional therapy, the formally educated in the same category would tend to avail himself of orthodox health care, even where there is the impediment of distance (Buor, 2001). Socio-economic factors thus largely influence utilization of orthodox health services.

The adoption of the International Monetary Fund (IMF) – World Bank – initiated Structural Adjustment Programme (SAP) by some developing countries has had negative repercussions on the utilization of health services by the poor masses (Anyinam, 1989; Audibert. et al, 2000). It is evident that the SAP has not been able to eliminate poverty, which is the main cause of poor accessibility and utilization of health services in developing countries (Delvin and Yap, 1993). Delvin and Yap emphasize that the moderated levels of poverty and political stability are not consistent with SAP prescriptions of free trade and unrestrained markets. Several workers have lost their jobs, subsidies on essential services like health services have been removed, and local currencies heavily devalued. The outcome is a high cost of living and negative repercussions on the use of essential social facilities.

Inaccessibility of health services to a greater part of the population, due to spatial separation and high service costs, may result in the use of traditional therapy and abuse of drugs, which have the over-all repercussion of weakening potential manpower and productive capacities (Ansah et al, 2001). Accessibility and utilization problems could be seen in the light of problems such as of lack of resources to provide the necessary input for qualitative health services. This calls for the need to increase the output of primary health services, to cater for the greater proportion of the population. In developing

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countries, primary health care facilities are concentrated in the urban areas, which constitute less than 40 percent of the total population. This calls for alternative approaches to the current delivery system like the integration of scientific and traditional health systems, since traditional health facilities are more readily available than orthodox medicine to the majority of the population (Tsey, 1997). Research on accessibility and utilization of health services has focused on urban health care rather than rural primary health care. The import of primary health care in the rural areas has been neglected. Such an omission is prerequisite for a comprehensive policy framework.

A research into the problem of accessibility and utilization of orthodox Western medicine in a developing nation like Ghana was thus urgent, to reveal the deficiencies in the accessibility of health care, and socio-economic and demographic factors which hinder utilization of primary health care, and also to find alternative forms of service delivery which would ensure that a greater part of the population is provided with basic health services.

1.2 STATEMENT OF THE PROBLEM

A World Bank sector study revealed that in Ghana as a whole, only a quarter of the population has access to health facilities (The World Bank, 1997). Studies on the Ghana health situation revealed that the primary cause of poor health facilities that affected accessibility are financial constraint (Smithson, 1993). Apart from the inadequacy of the health facilities, their distribution pattern is urban-biased. The three most urbanized settlements – Accra, Kumasi and Sekondi-Takoradi – had more than 70 percent of health facilities in the country (Ministry of Health, Accra, 1998).

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In the Greater Accra Region, over 70 per cent of health facilities (public and private) are concentrated in the Accra-Tema Metropolis alone (Ministry of Health, 1999). In Ghana as a whole, health takes only 4.7 per cent of GDP (The World Bank, 2000). In the Greater Accra Region, the Accra-Tema metropolis has all the specialist and advanced health institutions such as the Korle Bu Teaching Hospital, Police and 37 Military Hospitals, Tema General Hospital, all the polyclinics in the region, as well as numerous private hospitals and clinics. Only a limited number of settlements in the rural areas have isolated health centres and community clinics. Majority of the rural dwellers have no access to the basic health care service (Agyepong, 1999; Mensah-Quainoo, 1997).

The accessibility to primary health care hinges on distance and intervening obstacles, cost of movement and transport time on one hand, and socio-economic, cultural and other human factors on the other. The distances from most settlements to the health centres in the rural areas are quite long, some settlements exceeding 20 kilometres from the nearest health centre. In developing countries, the ideal distance which most patients are expected to travel for health care at the nearest health centre is 3 kilometres. King and Jolly (1966) discovered that in Uganda out-patient attendance per person per year halved for every additional 3.2 kilometre distance from the patient's home to the hospital.

In the Greater Accra region, the Ga, Dangme East and Dangme West districts show a contrast to conditions in the urban areas, regarding the quantity of health facilities and accessibility to them. There is a deficiency in the spatial distribution of health facilities in all these rural districts. For example, in the Dangme West district, the Osudoku sub district with an area coverage of 37807 sq km has two health posts, Great Ningo covering an area of 5846 sq.km. has one health centre, Prampram with a land area of 1272 sq.km

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has one health post, and Dodowa sub district with a land of 2428sq. km has two health centres (Agyepong, 1999; Mensah Quainoo, 1997).

The islands located in the Volta Lake area of the Dangme East District face a more serious situation of being accessible only by canoe. No community clinics are available for the people on the islands. The World Vision-sponsored health centre facility at Pediatorkope, the biggest island is not patronized by the islanders since no senior medical officer is willing to reside on the island and work there. It is currently functioning as a community clinic, manned by a community nurse/midwife, and two public health nurses who do some outreach programmes in the area, travelling by boat. Apart from the long distances to health centres, especially in the rural areas, the poor nature of the roads impedes accessibility. The few drivers who take the risk to ply some of the roads charge high fares which cannot be borne by most people who prefer either walking or abandon the idea of attending the health centre altogether.

The status of accessibility in the Dangme East and Dangme West Districts shows a contrast with that of the Ga District which is closer to Accra and has better access to the hospitals and clinics in the metropolis where taxis and mini-buses, "tro-tro" are readily available. The further a settlement is away from Accra, the greater the accessibility problem. During the rainy season all the roads in these three rural districts, with the exception of the major roads linking Accra directly from the district capitals, become immotorable. It costs a minimum of ¢20,000-¢30,000 to hire a taxi to cover distances less than 8 kms. High transport cost imposes a restraint on attendance. Walking distances are preferred in all the settlements, even on the islands in the Dangme East district where the inhabitants are forced to travel by boat to the Ada Health Centre, after long distances of

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walking across the island. The high cost of health services is a disincentive to some patients in the districts capitals and well as all the settlements in the study area.

High service cost is partly the outcome of the introduction of Structural Adjustment Programme. It has led to the removal of subsidies on essential services like health and education, and even agricultural inputs. The cash and carry system, which enjoins on the user of health service to pay fully for the cost of service, was introduced in the mid-80s as a product of the SAP. Sowa (1993) has found that declining hospital attendance in 1984 could be attributed to the overall crisis of the economy, but the continued drop through 1986 could be due to the introduction of hospital fees.

Both in the rural and urban areas, poverty is a very important factor which influences utilization. Through health education, some rural uneducated are beginning to embrace scientific medicine. Inability to bear the cost of health services, however makes them unable to use orthodox health services. Buor (1988) in an analysis of income and hospital attendance in the Ashanti Region concluded that the high income earners attend hospital more often than low-income earners.

Education, which is a superstructure in accessibility, is a tool that can break the barriers to hospital attendance. A teacher in the rural area is more likely to find means of overcoming the accessibility problem than an uneducated farmer, even when both of them earn the same annual income. The educated have knowledge of the basic sciences, so are aware of the implications of the use of untested traditional medicine, and self medication. They will thus find any means to overcome the problem of physical inaccessibility to receive medical attention from an orthodox institution (Buor, 2001).

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Employment status also influences hospital utilization. Employed people have more access to financial resource than the unemployed. Political factors can also affect accessibility. The decision to site institutions at specific places is in some instances, influenced more by political considerations than locational viability. Religious prejudice and politics can keep some people away from specific health institutions. Quality of health service is an invaluable index of utilization. The islanders in the Dangme East districts for example bypass the community clinic at Pediatorkope because they know the quality of health care available there is far less than what is provided at the Ada Health Centre, and even more recently, the district hospital at Faithkope.

Morbidity condition of a patient when the health situation assumes a critical dimension also influences the utilization of a health care facility. Relations and friends make great efforts, under such critical situations, to overcome the hindrances to accessibility. They make great sacrifices and contributions to help their beloved one. The inability of patients to afford the cost of health services and the poor attendance due to poor physical accessibility to health centres is likely to result in their resorting to traditional therapy and self-medications with their negative repercussions. There was thus the need for a research into the accessibility problem which is more endemic in the rural areas, examine its gravity in impeding the progress of health care and suggest solutions based upon observed patterns.

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1.3 OBJECTIVES

The general objective of the study is to analyse the accessibility and utilization of primary health care facilities and services within the Ga, Dangme East and Dangme West Districts of the Greater Accra Region. The study specifically seeks to;

1. Analyse the factors that account for the current spatial distribution of Primary Health Care facilities in the above mentioned selected districts.
2. Examine access to primary health care services in the districts mentioned
3. Assess the utilization factors in the three districts.
4. Give recommendations on the effective use of health services.

1.4 LITERATURE REVIEW

1.4.1 Definition of Health and Primary Health Care

World Health Organization (WHO) define health as "a state of complete physical and mental and social well being and not the absence of disease or infirmity" (Melinda et, al, 1984). Research suggests that health, at all levels of definition, goes well beyond health care (Dutton, 1986; McKinlay, et.al, 1989). It embraces strategies that can prevent the need for clinical services. Health and its relation to society has always been an important theme within Geography.

Kleinman et.al (1978) identify three sectors of health care. These are the popular sector, the folk sector, and the professional sector. The popular sector includes all the therapeutic options that people utilize, without consulting either folk healers or medical practitioners. In the folk sector, individuals specialize in forms of healing that are either sacred or secular, or a mixture of the two. The healers are not part of the official medical system, and occupy an intermediate position between the popular and professional sectors

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(Cecil, 1984). The professional sector comprises the organized, legally sanctioned healing professions, such as modern Western scientific medicine, or allopathy. It includes not only physicians of various types and specialities, but also the recognized para-medical professions such as nurses, midwives, or physiotherapists.

In most countries including Ghana, scientific medicine is the basis of the professional sector, but traditional medical systems may also become "professionalised" to some extent. In India, for instance, 91 Ayurvadic and 10 Unani medical colleges receive government support (Cecil, 1984). In Ghana, a few medical doctors have entered into the area of folk medicine. A research institution on plant medicine receiving government support has been established at Mampong Akwapim in the Eastern Region. The relationship between folk and professional healers tend to be marked by mutual distrust and suspicion. In the Western world, modern medicine views folk healers as "quacks" and "charlatans".

The Declaration of Alma Ata defined Primary Health Care as "essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally acceptable to individuals and families in the community through their full participation and at cost that the community and the country can afford to maintain, in the spirit of self-reliance and self-determination" (WHO , 1978). The main aim of PHC is to shift health care delivery from its overconcentration on curative forms to preventive and promotive aspects of health care on a community-based level (Ministry of Health, 1994). The concept of PHC involves in addition to the health sector, all related sectors and aspects of national and community development to food, industry, education, housing, water supply, and communication (Blas and Limbambala, 2002; Carrin et al, 2000).

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1.4.2 Perception of Health Systems

Perception of various health systems has significant impact on utilization of health services. Perceptions have psychological significance that is very important in medical care. Traditional societies see orthodox medicine as inefficient in treating certain diseases (Okafor, 1983). Abugri's (1995) work in Northern Ghana indicates that aetiology as defined by society and understood by the people was particularly important in the selection and use of various therapeutic options in the area. There is a general belief that witchcraft or sorcery is an important cause of illness. Therefore, if one's sickness is attributed to supernatural causes the therapeutic option will not be biomedical, but a diviner or a witch doctor.

Buor's (2001) study in the Ashanti Region shows that there could be attitudinal changes due to the level of education, place of residence, religion and family composition. He found the formally educated more scientific-minded and they sought scientific explanations to existing phenomena. Religion as a tool also affected changes in attitudes towards superstition and cultural beliefs (Attanapola, 2000). Gibben (1992) has established that, poorly perceived health is associated with decreased utilization, whilst London and Bachman (1997) observed that user's choice of service appears to be a rational decision on health care services and perceptions of the quality of these services.

In a study of self-treatment of malaria in a rural area of western Kenya, Reuben et. al (1995) established that the people's perception of malaria as a relatively mild illness, much less severe than Acquired Immunodeficiency Syndrome (AIDS) and measles, encouraged them to embark upon self-treatment. Thus the utilization of intervening therapeutic options is the function of perception of health and disease. Yamey (2000) and

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Jeppsson et al, (2000) confirm this situation in their studies. Others have attempted to draw a tacit relationship between the nature of health care and the social systems.

To Hours (1986) it is impossible to separate the nature of health care systems from the societies that they seek to serve. The systems are created within specific social, cultural and economic structures, and, even if the health care is "improved" potentially, it has to adapt to local expectations, beliefs and norms if it is to have any popular relevance. These factors are linked with perception. It is for this reason that WHO (1978) recommended that traditional healing be integrated where possible with modern medicine, and stressed the need to ensure respect, recognition and collaboration among the practitioners of the various systems concerned.

Scientific health services come under the umbrella of the professional sector. In most advanced countries, they are the only one legally recognized under the professional sector. A feature of Western health service in the developing nations is the inadequacy and scarcity of facilities. The scarcity of the facilities is due to lack of funds for the health sector. On the issue of funds for health services, Ron (2000), Buor (1988) and Mensah (1997) have found that they are woefully inadequate.

1.4.3 Accessibility to and Utilization of Health Services

Forbes (1964) defines accessibility as implying the ease of getting to a place. It is a variable quality of location, and in a technical sense, refers to a relative quality accruing to a piece of land by virtue of its relationship to a system of transport. It can be reduced in simple terms to mean the ability to reach a facility from a defined location. The concept means in general that something is "get-at-able" (Moseley, 1979).

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Phillips (1990) discussed issues related to access to health care by drawing distinctions between physical (potential) accessibility and revealed accessibility (utilization); equity and equality of provision, and between quantity and quality of services. People in a community are supposed to be potential users. Even though people in a community may have physical (potential) access to a facility, it may not necessarily lead to revealed or effective accessibility (utilization). Factors such as patient's preferences and tastes, financial ability and time – space variables may affect utilization.

Phillips also introduced locational accessibility that is a function of proximity, and related to physical accessibility. The potential accessibility factors that impinge on utilization are distance and time, both travel and waiting times. Some studies have identified a negative relationship between distance and hospital utilization: the longer the distance, the lower the attendance rate (Phillips, 1986; Stock, 1987). This relationship may, however, vary according to the nature of illness, nature of road, and the quality of transport service.

In developing countries, distance is only one variable that may interact more or less strongly with others to influence utilization. Mesa-Lago (1985) points out in his survey that a middle-class state employee living in San Jose, Costa Rica, obviously has a much better opportunity of receiving quick, efficient and appropriate health care than a poor peasant living 30 kilometres from the nearest health centre or rural post in the same country. A pattern of hospital use in developing countries is that most patients visiting health facilities come from the immediate vicinity (Meise et.al, 1996).

In-patients are drawn largely from the community in which a health facility is located. In Ghana, 80 percent of the in-patients at the five major hospitals, came from the urban

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district in which the hospital was located (Buor,2001). About 35 percent of rural households cover a distance of between 1 and 9 kms to travel the nearest hospital, whilst over 20 per cent cover over 30 kms to get to the nearest hospital (Ghana Statistical Service, 1993).

The phenomenon of distance decay features prominently in health service utilization. It is a well-recognised spatial phenomenon that as a service or facility becomes more distant, fewer people will patronize it. Distance decay thrives largely in a pluralistic health care. In Nigeria, Stock (1987) found that at a distance of 5 kilometres from a dispensary, per capita utilization fell to less than one-third of the 0-km rate. Writing on distance and health care utilization among the elderly in Zambia, Jeppsson et.al (2000) observed that increased distance from provider does reduce utilization. Oppong and Hodgson (1994) and Fendall(1995) confirm the great impact distance has on utilization of health services.

Phillips (1990) noted some socio-economic differentials in distance decay in Kingston, Jamaica, where residents from the high status sites often travel considerable distances to reach expensive private clinics in the business area, whilst by contrast, poorer residents in many sites use locally available public health centres or one of the two public emergency rooms at the University Hospital or Kingston Public Hospital.

Other factors that violate the distance - decay mechanism include the quality of care provided, and the nature of the illness. In rural Nigeria for instance, Stock (1983) found out that people were willing to travel further for more specialized services, or better quality care. Girt (1973), Wolinsky (1983) and Hays et al (1990) also confirmed that gradients of distances patients travel to seek health care are relative to the nature of illness.

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A patient is prepared to cover a long distance, depending upon the gravity of his health problem (Sharpson,1972).

Time accessibility and utilization could be examined in three perspectives, namely travel time, waiting time at the hospital, and waiting time with respect to appointments. In developing nations, travel and waiting times are more important in examining utilization. Waiting time through appointments is not a regular feature of the health system.

Meise et.al (1996) saw time distance as a major obstacle to hospital attendance, and that waiting time, defined as the length of time a patient spends waiting at a physician's office, is an important time price that determines utilization levels (Acton, 1975). Aday and Andersen (1974) also note that this negative effect on utilization is greater for rural farm residents than for the urban dwellers because they have been found to have the highest traits of seeing a physician. This may be based on their low socio-economic status.

Time, as a barrier to utilization could be influenced by the season of the year, and the nature of a patient's business activities. During the farming season, it would be expected that the rural farmers would not like to waste much time travelling long distances for health care, whilst a very busy entrepreneur may care during peak seasons such as Christmas. He may prefer using intervening alternatives.

Apart from physical accessibility, socio-economic, demographic, and political factors influence the use of health services. These factors are income, education, age, sex, government policy and ethnicity, place of residence, quality management and affective behaviour. Mensch (1985) in a household survey in rural Iraq found that the use of

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higher-level government health services and private clinics did increase substantially with increasing income. In Indonesia, Chernichovsky and Meesook (1986) in a household survey found low income to be a strong barrier to the utilization of modern medical facilities, even when publicly provided. Pickett and Hanlon (1990); Ensor and Pham-Bich-San (1996); and Wyss, K, et al. (1996) conclude in separate studies that poverty is a strong barrier to the utilization of health services.

In a study of user satisfaction with health services in government health facilities in the Eastern Region of Ghana, code-named, "What does the public want from us?", Dovlo, et.al (1992) identified high cost of services, among others, as a major cause of user dissatisfaction. Writing on strategies for regional welfare planning, Aase (1996) had emphasized the link between education and health – related behaviour. The situation in the Ashanti Region (Buor, 2001) confirms Aase's position. The educated are more cautious and conscious of their health, and tend to use health services more.

The educational levels of mothers are generally strongly related to levels of infant mortality, effective feeding, and good use of health services. Improved education of women is associated with increased use of modern pre-natal care (Wong et.al, 1987). The education of mothers in Ghana is a determinant of child immunization, which constitutes a significant aspect of preventive health care. Whereas 42.2 percent of mothers without formal education immunized their children against BCG, DPT, polio and measles between 1989 and 1993, 86.7 percent of mothers with secondary education and above did (Ghana Statistical Service, 1994). Education and demand for health care are positively related (Grossman 1975). The education of the mother is a strong factor in determining the use of health services (Caldwell, 1986; Caldwell, 1989; Swenson, et.al, 1993; Mensch, et al.

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1985; Raghupathy, 1996; Wong et.al. 1987). Educated women tend to use health facilities more than the uneducated, and the level of education of a woman and the number of living children also has an effect on her use of pre-natal and antenatal services.

Demographic factors of age and sex show some correlation with the use of health services. In rural India, rural Nigeria and rural Ethiopia, Kroeger (1983) observed that children are important clients of Traditional Medical Practitioners (TMPs), whilst Good (1987) found that in India, women consulted TMPs most, accounting for 55 to 60 percent of consultations. The two situations could stem from poverty, ignorance and cultural practices. Ethno medicine is intrinsically embedded in the rural economies of developing countries where poor access to scientific medicine exists.

In an empirical research on accessibility and utilization of health services in a rural district in Ghana, Abugri (1995) observed that, the youth made use of health services more than the aged. Persons aged below 20 years shared an increasing tendency to visit the clinic more than those above that age. The elderly above 51 years used the clinic very seldomly. The explanation is that the elderly are generally dependent on the middle age group for support, hence their decisions to visit clinics, were restrained by either lack of financial or physical support. This "gate-keeper" model (Buor, 2001) is very crucial in the accessibility and utilization problem, especially in the rural areas that are deprived of adequate health services.

Gender disparities also impact negatively on use of health services. Ojanuga and Gilbert (1992) in a work on women's access to health care in developing countries established the premise that myriad socio-cultural factors negatively impinge upon the physical well-

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being and accessibility of appropriate health care facilities of women. Santow (1995) believed that in developing countries, women's roles affect their use of health services, since health as a good is allocated, but men monopolise family decisions.

Women's views are not respected, and decision-making tends to favour men. The political, economic and social structures internally and nationally decide who is going to get what, where and how (Smith, 1979), and this finds expression in the impact of the Structural Adjustment Programme (SAP). Some of the features of the SAP are the devaluation of the local currencies, removal of subsidies from social services, trade liberalization, and labour retrenchment. The cost of health services is therefore unbearable for the unemployed and the low-income earners. Delvin and Yap (1993) have emphasized the fact that moderated levels of poverty are not consistent with SAP's basic prescription. The growing poverty has led to a significant decline in hospital use in Ghana (Sowa,1993; Abugri, 1995 and Waddington and Enyimayew,1990).

Abugri(1995) concluded that the introduction of the SAP affected the utilization of health facilities of the rural people, and led to the reduction of medical staff, with negative effects on the quality of services. Waddington and Enyimayew(1990) found that, in the Volta Region of Ghana, there were significant cuts in outpatient attendance, with the introduction of hospital fees (user charges) that was a by – product of the SAP.

The issue of ethnicity in accessibility and utilization is very important. Certain ethnic groups show bias to the utilization of certain types of healers or medical providers. In developing nations, Hyma and Ramesh (1994) have found that preferences for health

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facilities may be based on a common language or religion that leads to the utilization of certain types of healers or medial providers.

The residence in certain locations especially in the urban areas, can affect accessibility and utilization of health facilities. Membership of religious groups can be associated with access to superior or inferior health care. In Western countries, Philips (1990) has found that residence in less desirable urban locations and socio-economic deprivation can lead to poorer physical and social access to health care.

There is also the concept of social accessibility (social distance) in which patients in a community consulted doctors with whom they felt comfortable. In a study of factors of general practice in rural Australia, Caldwell (1986), found that social accessibility considerations were more important than geographical proximity in the choices of rural residents to consult a particular doctor. Finally, the application of Total Quality Management (TQM) has been found to enhance accessibility (Miller and Milakovich, 1991; Donabedian, 1980; Dhungel and Dias, 1988)). Sira (1996) stressed the manner of professional presentation (affective behaviour) as influencing utilization whilst Sintonen and Maljanen (1995) use the supplier – inducement model to access utilization.

1.4.4. Distribution of Health Facilities

It has been found that equality of provision implies the arithmetic division of available facility resources equally among the population by a formula adopted for demographic criteria such as local age structure. On the other hand, equity implies justice in distribution in which those who, for some reason, require more of a service, will be

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provided with more than their equal share, because of their relatively high requirements (Phillips,1990).

The distribution of modern health care facilities, especially public hospitals, tends to favour disproportionately urban centres. The differences in provision between rural and urban areas are often so great as to make national averages of population facilities almost meaningless. The Annual Report of WHO drew attention to the concentration of physicians in urban centres and the development of health services predominantly in towns (WHO, 1998).

The Metro-Manila region in the Philippines, for instance, though contains 25 per cent of the country's population, has 43 per cent of total hospital beds (Phillips, 1986). In Kenya, it is estimated that only 10 per cent of the country's doctors serve rural areas, and that some 70 per cent of all doctors are in urban private practice. Doctor-to-population ratios range from 1:990 in the cities to 1:7000 in rural areas (Good, 1987). Such disparity also exists in urban areas (Harpan,1988; Bailey & Phillips, 1990). Variations have also been found to exist in spatial provision of health facilities between rural local government areas in Nigeria (Okafor, 1984). In the Ashanti Region of Ghana about 34 per cent of all health facilities are concentrated in Kumasi, the capital, (Ghana. MOH, Ashanti, 2000); and, above all, health facilities are concentrated within the Central Business District (CBD), (Town and Country Planning Department, 1996/Kumasi Metropolitan Health Directorate, 1995). Such imbalance in the distribution of health facilities and personnel makes rural dwellers for remote from, and virtually inaccessible to modern health facilities (Buor, 2001).

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This unequal distribution of health facilities in urban settings in developing countries has serious health implications. Rural people tend to rely on intervening options such as self – medication using orthodox and traditional medicine, and resorting to "quack doctors" and pharmacy shops that can result in serious health implications.

1.4.5 Traditional Health Services

Traditional medicine is a serious defying factor of utilization of scientific medicine in developing countries. In Ghana, as in most African countries, the rising cost of Western medicine means that individuals and, to a lesser extent, governments are increasingly turning to traditional medicine as an affordable alternative (Tsey, 1997). Traditional medicine is also being actively promoted by the WHO and other international agencies throughout the Third World (WHO, 1978; Leslie, 1980; Launs, 1989; Chavanduka, 1994). Traditional healers are a group of persons recognized by the community in which they live as being competent to provide health by using vegetable, animal and mineral substances and other methods based on social, cultural and religious backgrounds as well as on the knowledge, attitudes and beliefs that are prevalent in the community regarding physical, mental and social well-being and the causation of disease and disability.

As an acceptable definition, we can group Ghanaian traditional healers into four main types of specialities (Twumasi 1998):

1. Traditional birth attendants (TBAs)
2. Faith healers
3. Herbalists
4. Spiritualists

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These traditional health care providers play a very important role in the whole health care situation in the country. They have a large number of patients and are busy all year round.

Traditional Birth Attendants (TBAs) focus on pregnancy problems and have a special role to play at birth and puberty ceremonies. In childbirth, they are midwives and are also recognized at times as good mothers to young children. Throughout Ghana, especially in the rural areas they are known as specialists in obstetrics. Their range of activities extend into the field of sex education and contraceptive counseling. Besides taking on the responsibility in delivering babies, they also see to the health of the child and the mother (Gaisie, 1989).

Faith healers are representatives and leaders of religious movements, especially the new, unorthodox, charismatic, pentecostal churches. Common among the faith healers are the leaders of sectarian religious movements. Included in this group are also the Muslim healers who are generally referred to as "*mallams*" in the country. The most numerous among the traditional healers are the herbalists. They are the healers whose approach to healing is often related to the use and application of herbs. Their methods of treatment and operational procedures are often similar to modern medicine though their principles are quite different (Twumasi, 1998; Gaisie, 1989).

Spiritualists include fetish priests, fetish priestesses, ritual leaders and others who are specialists in divination. At times, it is difficult to make a clear-cut distinction between faith healers and spiritual healers. For analytical purposes, faith healers operate from a religious movement whereas spiritualists are intermediates between a particular god or spirit and the public.

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In 2002, Medi-Moses medicine, a potent herbal beverage for hypertension, stroke, heart diseases and aphrodisiac for sexual enhancement manufactured by Duganco Pharmaceutical Ltd, won a Drugs and Chemicals (Small-Scale Category) Award at the National Quality Awards held in Accra(Daily Graphic,2003).

Medi-Moses medicine, which comes in three categories namely gastro-intestinal tract, and respiratory tract infections, waist and rheumatoid arthritic pains and lumbago and slimmer for obesity, has been commended by the Ghana Federation of Traditional Practitioners (GHAFTRAM), GAR, for being national quality award winner in herbal medicine. Dr. Moses Kofi Amuzu Dogbatsey, Managing Director of the Company, promised to assist other herbal manufacturers to attain best quality in herbal medicine preparations. He received his award from Mr. Taylor of the Ghana Standard Board.

Generally, the traditional healers are reputed to be skilful in dealing with social and psychological ailments. Studies conducted in Ghana and Zambia show that physical cases are almost invariably referred to the modern health clinics. The findings of a study conducted by Twumasi (1998) are summarized below:

> Clients of traditional healers were of the opinion that due to the non-availability of modern hospitals and clinics, the only alternative left for them was to go to traditional healers. This conclusion was expressed frequently by rural people. They also stated that there were certain types of problems and illnesses which modern practitioners were not able to deal with, especially those of social and psychological origins. For those problems and illnesses they felt satisfied consulting the traditional healers (Twumasi, 1998).

There is a strong belief that sickness is caused mostly by supernatural forces, especially witchcraft, and not just physical and environmental situations. Sickness attributed to personal attack is a cause for alarm (Stock, 1981).

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It is a commonly and easily observed fact that some of the most "detribalised" and "modernized" Christians, scholars, scientists, and entrepreneurs among the African bourgeoisie today still consult African divinities, diviners, and healers when their health or other affairs are in serious trouble (Airhihenbuwa, 1995). Many have been known to sneak away from their church pews, discard their three-piece suits, steal away by night to some healer in his forest shrine, and carry out all manner of ritual sacrifices when these are demanded. Infact, even among those with Ph.Ds, D.Sc.s, LL.D.s, and other assorted strings of Western bourgeois academic degrees, the going attitude is still that Western medicines and the Western Christian God are fine in their place, but when things get tough one runs back to one's roots and ancestral ways (Chinweizu, Jenier, Madubuike, 1983, p.21). Illiteracy, superstition, religion and general underdevelopment has a very important role to play in the perception of sickness in our rural areas.

1.4.6: Health Insurance in developing Countries

Health insurance can be interpreted broadly as an ongoing activity, which secures health status, or narrowly in terms of the institutions, which secure (financial) access to health care. According to Supakankunti (2000), health insurance is a means of financial protection against the risk of unexpected and expensive health care. In countries like Taiwan and Thailand, where the use of public health services is heavily subsidized, governments are implicitly covering the risk of incurring high-cost care (Kutzin, 1995; Tangcharoensathien et.al, 1999; Liu et al, 2002).

In poor rural communities, access to basic health care is often severely limited by inadequate supply as well as financial barriers to seeking care. National policies may introduce social health insurance, but these are likely to begin with the salaried public and

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private sector workers while the informal sector population may be the last to be covered. Studies by Ron (1999) show that community initiatives, in Guatemala and the Philippines, to generate health care financing required a complex development process. Non-government organizations came to the rescue of some of the rural populations of the above mentioned countries. The scheme of the Association poor Salud de Barillas (ASSABA) in Guatemala, however, was not sufficiently established as an administrative body at the initial stage and there was no clear national policy on health care financing. By the time the necessary action was taken, local conflicts hindered progress.

In the Philippines, on the other hand, the Health Plus Scheme was implemented during the period of registration of a national health insurance act. The appraisal after three years operation shows that OPAS had made health care affordable and accessible to the target population, composing mainly of low and often unstable income families in rural areas. The major success factors are probably the administrative structure provided by cooperation and controls in the delivery system and in expenditures, through the salaried primary health care team, referral process and the capitation agreement for hospital – based services. The proliferation of such schemes could benefit from national guidelines, a formal accreditation process and an umbrella organization to provide assistance in design, training and information services, involving government, non-government and academic institutions as an integral part of the development process. Studies in Bangladesh by Desmet et al (1999), Bloom et.al (1999) in China and Chen et al (2001) in Taiwan confirm Ron's findings.

Empirical evidence from the Bwamanda hospital (Zaire) insurance scheme established that hospital utilization was significantly higher among the insured population (Criel, et al,

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1999). Case studies by Atim (1999) in Ghana and Cameroon, however concluded that there were not enough evidence to confirm that the presence or absence of a social movement dynamic per se accounted for the perceived performance of either of the schemes. However, it is also argued that the dynamic of social movement could enhance the design and performance of a scheme, especially the efficiency and quality of health care.

Such enhancement is possible provided that the scheme is set up in such a way as to benefit from the specific contribution of a movement component, in particular, if the scheme engages in direct negotiations with providers over the price and quality of care and makes direct payment contracts with such providers. A good scheme design is therefore one of the real keys to success. Studies in Asia by Ensor (1999) confirm these findings by Atim. Atim (1999) is also not clear how insurance will develop in the future, but he agrees with Carrin et al (1999), Musgrove (2002), and Supakantunti (2002) that a non-social movement based scheme can incorporate elements of a social movement (such as greater community participation, accountability and autonomy) in the course of time. It is argued that this process would enhance the success of a non-movement based scheme.

Like many low-income countries, Ghana finds itself on the eve of the introduction of a national health insurance scheme. In the context of its national health policy framework, health insurance is seen as one option of obtaining additional resources for the financing of health care without deterring the poor and vulnerable group from seeking care when they need it. It is a way of improving the quality and access to health care as well as managing resources more efficiently.

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Arhinful (2001) observed numerous obstacles which need to be overcome. Among the complexities and problems of implementing a scheme of insurance include the background of Ghana's low economic base, a relatively poor population, unplanned spending on health care, and lack of expertise on socialized health insurance.

Besides, there are other crucial issues of social and cultural nature that need to be considered in the design and implementation but which have not yet received adequate attention. As in most Third World communities, social security arrangements have been and still are largely based on primary relationship within and between relatively small-scale units, such as kinship, parenthood and gender, neighbourhood, friendship, patron-client ties and common village membership.

The underlying principle of exchange in these arrangements is reciprocity. The proposed insurance system, however, is based on an entirely different principle: that of state authority (Arhinful, 2001). The question that needs to be answered is how traditional mechanisms of reciprocal moral obligation can be "scaled up" or extended to an anonymous more formalized state centred solid insurance scheme. Particularly crucial is the question of how the concept of "universalistic solidarity" translates in the behaviour of the population in a social health insurance scheme based on their past experience on traditional social security mechanisms. To date, it is not clear to what extent the policy objectives of increasing the provision of and raising the quality of primary health care reconcile with what individuals and informal groups such as the 'abusua' (family) know, do and want in health insurance. Mass and individual education is needed to inform and discuss with the people about socio-cultural challenges of social health insurance in Ghana.

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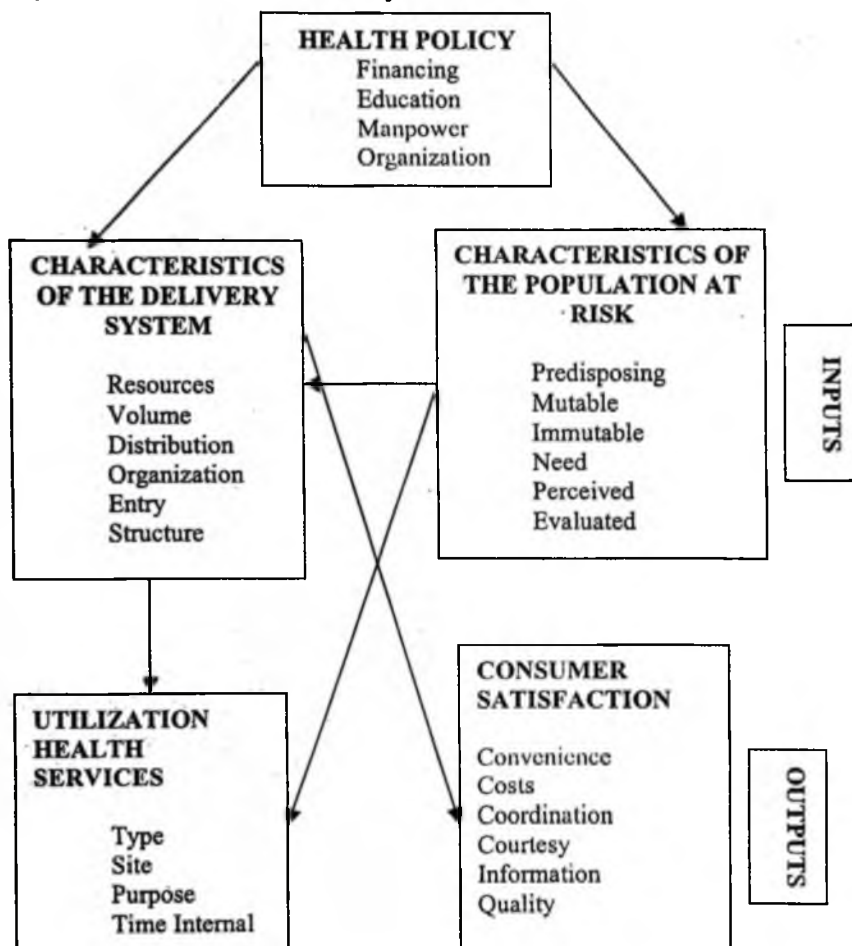
1.5 CONCEPTUAL FRAMEWORK

1.5.1 Aday and Andersen's Accessibility Framework

This model takes into consideration the factors of accessibility and utilization and health policy in the relationships in the access and utilization variables. Aday and Andersen (1974) use the input - output approach, with the characteristics of the delivery system, and the population at risk, constituting the inputs, whilst the utilization of health services and consumer satisfaction constitute the outputs (Figure 1.1). The health policy factors of

Fig. 1.1: A Framework for the Study of Access to Health Services



Source: Aday and Andersen, 1974.

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financing, education, manpower, and organization directly affect both the characteristics of the delivery system, and the population at risk. This suits the situation in developing nations, where the central government controls health decisions. The characteristics of the delivery system, resources and organization, affect the characteristics of the population. The predisposing and enabling factors as well as need, perceived and evaluated, can influence utilization. The model also shows a two-way direct relationship between utilization and consumer satisfaction.

The model nonetheless has some deficiencies. First, location, which is a very important factor in accessibility, is absent from health policy. Second, health policy can have a direct effect on utilization and consumer satisfaction; but this is not considered by the model. Third, demographic factors of age and sex, which are important factors in utilization were not included in the characteristics of the population. Fourth, utilization of health services and consumer satisfaction can also have direct effects on the characteristics of the delivery system, but this is not reflected in the model. In a user payment system for instance, effective utilization that will result in consumer satisfaction will improve the financial capabilities of the delivery system which can produce greater efficiency (Buor, 2001).

1.5.2 The Andersen-Newman Model

This model focuses on utilization and accessibility of health care in the United States of America. Andersen and Newman (1973) looked at the individual as well as the society's determinants of medical care utilization. Consumer satisfaction is of prime importance. The Medicare and Medicaid programmes were, at least in part, by products of the civil rights struggle. The strong, sustained economic growth in the United States during the

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1960s raised expectations for expanded social services. Improvements in access to health care for blacks had begun to take place well before the implementation of the Medicare and Medicaid programmes. In the developing world, the introduction of the National Health Insurance Scheme would go a long way to boost the accessibility and utilization of health care facilities.

1.5.3 The Mathematical Models

Gross (1972) and Kon-Kyun (1972) have developed complex mathematical models. Gross identifies the components of patients' behaviour as the major determinants of utilization. It is a model that incorporates accessibility, which has generally been omitted in earlier models. His model is represented in an equation:

U = F (E, P,A, A, X)e

Where, U = Utilization of various services reported by the individual or family

E = Enabling factors such as income, family size, education

P = Predisposing factors such as attitudes to health care, knowledge of sources of care.

A = accessibility factors such as distance and /or time from facility and service availability

H = perceived health level

X = individual and area – wide exogenous variables

E = residual error term.

Gross's model is a significant improvement upon Andersen's (1968), Aday et. al's (1980) and Stock's (1980). It goes beyond predisposing and enabling factors to include

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accessibility, and also individual variables instead of the aggregate. It thus incorporates a wide range of variables. These notwithstanding, the model has some set backs. Their numerical expression and measurement can constitute a problem. It is difficult to determine the parameters.

Pyle (1974) uses a modified gravity model to determine hospital service areas. This model confirms Shannon's model of 1969. In Pyle's model, he shows the relationship between distance, a dependent variable and parameters such as income, education and employment status. Distance is supposed to be a function of the socio-economic parameters. The model can help compute the volume of hospital attendance based upon the distance.

Gould and Leinbach (1966) developed a locational model which was used to locate three regional hospitals in Western Guatemala, whilst Kon-kyun's model proposes four determinants of the amount and type of hospital services provided, including the responses of physicians to the medical conditions of patients, the socio-economic characteristics of patients, institutional environment of individual hospitals, and the interaction between patient characteristics and hospital characteristics.

1.5.4 Dutton's Utilization Model

Dutton's (1986) model views the use of health services as a result of patient characteristics, and the provider and the system characteristics as represented diagrammatically in Figure 1.2. Her diagrammatic representation shows the interrelationships between patient characteristics, use of health services, and provider and system features. In the model, utilization is the product of patient characteristics and

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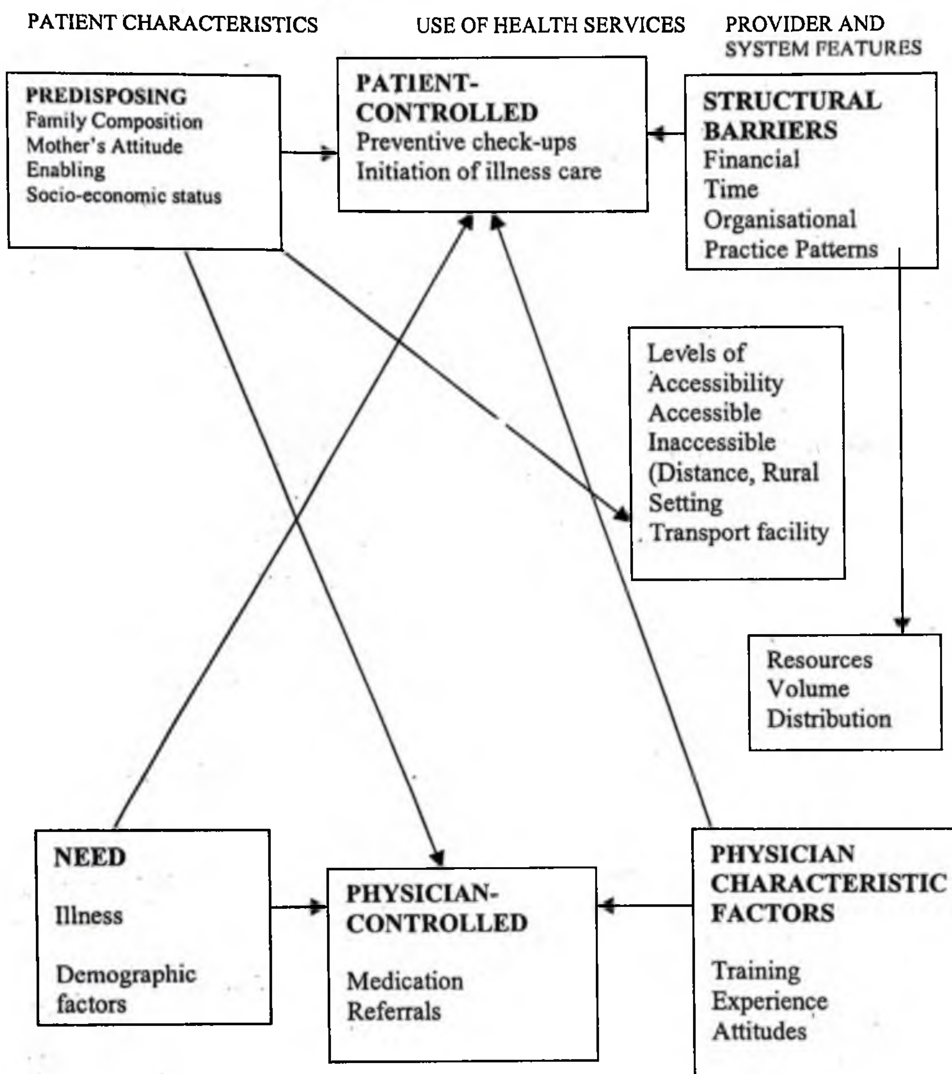
FIG. 1.3: A HYPOTHETICAL MODEL OF ACCESSIBILITY AND UTILISATION OF HEALTH SERVICES



Source: Buor, 2001; Dutton, 1986; Aday and Anderson, 1974

In a hypothetical model by Buor (2001), the main factors of interaction are patient characteristics, use of health services, and provider and system features and levels of accessibility. Levels of accessibility was introduced to show the other factors of potential

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accessibility that had been introduced to show the other factors of potential accessibility that had not been introduced in the Dutton and Aday and Andersen models. Structural barriers here indicate the barriers created by the institutions

providing health care. They do not necessarily imply government policies. The time under structural barriers refers to waiting time at the hospital. Need and physician characteristics have direct impact on patient-controlled factors, whilst resources available and predisposing and enabling factors have direct effect on the levels of accessibility.

Factors under the levels of accessibility are distance, rural settings and transport facility. The volume of resources available and the distribution would influence the patterns of accessibility, whilst predisposing and enabling factors would influence such barriers to health facilities.

The key independent variables for the study are income, employment, age, sex, education, distance to health institution, time taken to get to a health institution, waiting time at the health institution, transport cost, quality of the road and service cost. The main dependent (outcome) variable is utilization. The variables that come under patient characteristics are income, education, age and sex. These come under predisposing – enabling need factors. The level of income will determine the level at which are could be accessible to a health facility.

Where the accessibility factor is distance, transport cost or cost of service, the wealth status is a strong determinant of utilization. Education will also predispose a patient to the need to access health service, whilst age and sex will affect the need that is patient-

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controlled. The education and income factors can influence patient-controlled factors of preventive check-ups and initiation of illness care. The factors of education and income will also influence physician – controlled factors of follow up visit and medication. Physician's follow-up visits that are expensive would require financial capacity of the patient to pay for the services.

The levels of accessibility of distance and travel time would depend upon the volume of resources and their distribution pattern. Patients nearer health facilities, given a quality road network and availability of transport facilities, will pay less than those further away. The provider, the state or private institutions, will determine the cost factor. This is a factor of government policy. Where the cost is high, the poor segment of the society cannot afford the services.

1.6 STATEMENT OF HYPOTHESES

a) There is an inverse relationship between physical distance, travel and waiting times and utilization of Primary Health care facilities in the Greater Accra Region.

b) There is a positive relationship between the socio-economic factors of income and education and utilization of health services.

1.7 ORGANIZATION OF THE STUDY

The thesis has nine chapters. Chapter one begins with an introduction, followed by the problem, the study's objectives, literature review and conceptual framework. It concludes with the organization of the study. Chapter two concentrates on the research methodology. Methods of data collection, analysis and limitations of the data are also

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discussed. Chapter three focuses on the study area. Details on administrative divisions, physical conditions, population and health issues as well as socio-economic issues are delved into. Chapter four examines the primary health care system in the Ga, Dangme East and Dangme West Districts. Spatial distribution of the health facilities and components PHC are assessed.

Chapter five looks at the health status of the people. Household disease patterns as well as differences in health by place of residence are examined. Chapter six gives the factors of physical accessibility and utilization. Distance, travel and waiting times are very important factors. Chapter seven examines other factors affecting utilization. Service cost, transport cost, age and sex, employment education and income are salient issues discussed. Chapter eight focuses on synthesis of utilization of primary health care. The variables for the study are examined as well as the use of multiple regression in the study. Chapter nine summarises the findings, and offers some conclusions and recommendations to ensure effective use of health facilities, and to promote sound health that is a goal and an end of development.

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CHAPTER TWO

RESEARCH METHODOLOGY

2.1 INTRODUCTION

Methods of data collection include four different enquiry schedules including questionnaire, focus group discussion guides, in-depth interviews, non-informal schedules and participant observation. Targets of the enquiry range from heads of households, users of health institutions, providers of health services including doctors, nurses, drug sellers and drug peddlers. Statistics from health institutions are also of great importance to the study. Spatial dimensions such as rural- urban situations show up in the provision and spread of health care facilities and the hierarchy of settlements within and across districts.

2.2 TYPES AND SOURCES OF DATA

Primary sources of data included questionnaires, focus group discussions, interview schedules and personal observations from field survey. Secondary sources of data included population census reports on socio-economic and demographic characteristics of the population of the three rural districts of the Greater Accra Region, books, journals and periodicals. Other sources included survey reports on accessibility and health service utilization in the developing countries, and specific ones on Ghana; Ghana Demographic and Health Surveys; health situation in the selected health institutions from the biostatistics department of the Ministry of Health; the Ghana Living Standards Survey (GLSS) of the Ghana Statistical Services and Annual Reports of the Greater Accra Region, Ga, Dangme East and Dangme West Districts. Quantitative data were the main data collected. These were supplemented with qualitative data.

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2.3 RESEARCH INSTRUMENTS

The units of enquiry were selected heads of households (non-patient respondents), outpatients in health institutions, district directors of health services, medical assistants, nurses, assembly persons, licensed chemical sellers and drug peddlers; and the research instruments being formal questionnaire schedule, interview schedules, focus group discussions, in-depth interviews and observations.

Ten interviewers (research assistants), graduates, administered the questionnaires. They had knowledge of the health conditions in the study area, and were conversant with the languages so very little interpretation was needed. For household respondents and patients, structured questionnaire schedules were administered to the educated in the entire sampled health institution and towns and villages. The same set of questions was used as interview schedules for the illiterate population. To limit the problem of call-backs associated with the questionnaire instrument, interview schedules were applied on some educated respondents who, for pressure of time, would not be able to fill the questionnaire on schedule. Copies of the questionnaires for household respondents and patients are indicated in appendices 1 and 2.

Formal questionnaire was also structured for health administrators in the sampled health institutions. The directors of district health management teams filled the questionnaire for the district level whilst, the medical assistants and /or clinic attendants who were trained nurses, filled the questionnaires for the rural health centres and clinics.

For the health institutions, the questionnaire involved hospital statistics and opinions on accessibility and health reform. The schedule also covered the utilization patterns as

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reflected in outpatient attendances, health conditions in their catchment areas, health resources, health financing, and the impact of government policy on health care issues. The questions schedule for the health institutions is indicated in Appendix 3. Interview guides were structured for drug and chemical sellers, as well as community leaders (traditional and religious opinion on issues of accessibility to and utilization of primary health care). These can be found in Appendices 4 and 5.

Focus group discussions were held in the health centres at Amasaman, Dodowa and Ada Health Centres; at 3 separate MCH/FP sessions. Details on their attenatal attendance, immunizations, breast-feeding practices and nutrition for the babies and children were discussed. Habits like washing of hands before feeding the child, keeping a clean environment were also looked at. Attitudes of the nurses, quality of health care were all important features of the discussions. Indepth interviews also helped the researcher get details about the crisis respondents personally faced as a result of poverty and their inability to enjoy the available health services because of the financial difficulties they experienced under the cash and carry system.

The health conditions of selected settlements as well as .their ability to utilize health services were observed. The motorability of minor roads and the walking distances by the people to the health facilities were all observed. Some patients and non-patients were asked informal ubiquitous questions relating to their accessibility to health institutions, and their ability to utilize them. Indepth interviews gave detailed information on some of these important health issues.

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2.4 SAMPLING DESIGN

2.4.1 Sample frame

Greater Accra region was selected for the study. Its capital, Accra is the administrative and political capital of Ghana. This region has the largest urban centre in the country, as well as some of the least developed areas in Ghana (the Ga, Dangme East and Dangme West Districts). There are extremes of wealth and poverty; high quality health service with specialists at the Korle Bu Teaching Hospital, Police and 37 Military Hospitals, Tema General Hospital, polyclinics, private hospitals and clinics in both Accra and Tema, whilst at the extreme end, some rural dwellers, just a few kilometers away, are depending mostly on self-medication and untested traditional medicine during periods of ill-health. There are varieties in transport system, educational and income levels in these districts. The frame from which the districts, settlements and primary health care institutions were selected is indicated in Table 2.1 Out of the five administrative districts, three districts namely the Ga, Dangme East and Dangme West representing the bulk of the rural sector of Greater Accra, were selected for critical study (Table 2.1).

These three districts made for comparative analysis of rural-rural dichotomies. The district capitals show some urban tendencies, whilst the smaller settlements exhibit typical rural characteristics such as the inhabitants engaging in primary economic activities. They also have very poor road networks and poor health facilities that are physically inaccessible to a significant proportion of the population.

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TABLE 2.1: Sample frame

DISTRICTS	1. Accra Metropolitan Area 2. Tema Metropolitan Area 3. Ga 4. Dangme East 5. Dangme West
HIERARCHY OF SETTLEMENTS	1. Hamlet 2. Cottage 3. Village 4. Semi-Urban 5. Peri-Urban 6. Urban Core
HIERARCHY OF HEALTH INSTITUTIONS	Ministry of Health District Hospitals
	Ministry of Health Health Centres
	Ministry of Health Community Clinics

Source: Construct of the researcher, 2001.

As at the time of the field work (2001), there was no district hospital (Level C of the primary health care facilities) in any of these three rural districts. Each district capital had one health centre with a medical assistant in charge. This is the highest in the hierarchy of Ministry of Health primary health care facilities available in the districts. Selecting of the health centres was done purposefully, by hierarchical order.

The spatial spread of the health institutions and the level of accessibility to them will help in comparing utilization based upon physical accessibility. Each district is well represented. Major and minor roads and the use of footpaths, and river transport are also of interest to this study. The selection of the various localities portray this important component in the accessibility and utilization of the available PHC.

The sampled settlements included settlements where the health institutions are situated and those without primary health care facilities. The former was done purposively while the

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ensured that every group was represented. The sub-groups were also homogeneous enough to warrant such a sample size. Added to the financial and logistics constraints, the sample size was reasonable.

2.4.3 Sampling Methods

The multi-stage non-probability approach was used in the allocation of the respondents to the districts and health institutions; total, and by age and sex. Total sample allocations were made to the districts, then to the health institutions. There after, allocation was made by age and sex, which are variables that are common in almost every locality. It was not possible to pre-determine the samples for the variables of education, employment and income, since there are no current statistics on them. Disproportionate and proportionate sampling, stratified random, simple random and systematic random sampling were used at various stages. The sample allocation to the districts was done purposefully. Table 2.2 shows the allocation of respondents to settlements and health institutions in sampled districts.

Table 2.2 – Allocation of respondents to settlements and health institutions in sampled districts.

District	Respondents sampled in settlements	Respondents sampled in health institutions	Total
Ga	200	60	260
Dangme West	100	60	160
Dangme West	100	60	160
Total	400	180	580

Source: Author's Construct, 2001.

Population was used as a basis for the various settlement allocation. (Refer to Table 2.3). The Ga District had an allocation of 260, whilst the Dangme East and Dangme West districts had 160 each. The details for the health institutions are given in Table 2.4. Table 2.3 shows the sample proportion of the households in the districts

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Table 2.3 - Sample proportion of households in the selected districts

District	Population Census 2000	Percentage of Total Sample	Actual sample size	Rationalized size
Ga	556,581	74.5	298	200
Dangme West	96,776	13.0	52	100
Dangme East	93,193	12.5	50	100
Total	746,550	100	400	400

Source: Construct of the researcher, 2001.

Table 2.4 gives the sample allocation to health institutions.

Table 2.4 – Sample allocation to health institutions

District	Name and type of health institution	Location	Number of patients interviewed	Number of workers interviewed
1. Ga	Amasaman Health Centre	Amasaman	40	7
2. Ga	Ngleshie Amanfrom Community Clinic	Ngleshie Amanfrom	20	3
3. Dangme East	Ada Health Centre	Ada	40	7
4. Dangme East	Pediatorkope Community Clinic	Pediatorkope	20	3
5. Dangme West	Dodowa Health Centre	Dodowa	40	7
6. Dangme West	Agomeda Community Clinic	Agomeda	20	3
Total	6	6	180	30

Source: Construct of the researcher, 2001.

Amasaman, the Ga District capital had the largest proportion of samples in the settlements because of its relatively bigger population size and its importance in terms of its closeness to Accra (23 kms away) and also its peculiar situation of having more city dwellers flocking there because of the relatively lower rent cost compared to the Accra Metropolitan area. Ada and Dodowa, district capitals for Dangme East and Dangme West respectively, had the second largest proportion of household heads or their spouses/representatives because of their special positions as district capitals thus having a

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higher population and more urban tendencies compared to the more rural dwelling places such as Medie, Tuanikope and Yakubukope.

There was an allocation by sex in the health institution of sampled districts. Out of a total of 180 respondents in the health institutions (patients), 64 of them making 36 percent were males, whilst 116 making 64 percent were females. Females are more than males in the communities as well as the patients. No allocations were made for the households since most household heads are males any way and one can never tell who would be available to be interviewed per time. The allocation by sex and age (patients) is indicated in Tables 2.5 and 2.6 respectively.

Table 2.5 – Allocation of respondents (patients) to the districts by sex

District	Health Institution (Patients)				Total	
	Male		Female			
	Sample	%	Sample	%	Sample	%
Ga	18	28.1	42	36.2	60	33.3
Dangme West	22	34.3	38	32.8	60	33.3
Dangme East	24	37.6	36	31.0	60	33.3
Total	64	100	116	100.0	180	99.9

Source: Author's Construct, 2001.

Table 2.6 – Allocation of respondents (patients) to the districts by Age.

District	(Health Institution Patients)				Total	
	18-59		60+		Sample	%
	Sample	%	Sample	%	%	
Ga	49	42.9	11	16.7	60	33.3
Dangme West	34	29.9	26	39.3	60	33.3
Dangme East	31	27.2	29	44.0	60	33.3
Total	114	100.0	66	100	180	99.9

Source: Author's Construct, 2001.

Allocation of respondents (patients) was arbitrarily done by quota sampling for the districts (Table 2.6). For the age group 18-59, the proportion was 114, making 63 percent of the sample, whilst 60+ formed 37 percent of the patients.

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For the selection of the respondents in the communities, systematic random sampling was used to select the houses from which respondents were located. In each house, the head of household or his/her spouse, or representative, of 18 years and above, were interviewed if they were illiterate, or given a questionnaire if literate. Couples were not interviewed. Either the man or woman was interviewed to avoid duplication. Care was taken to ensure that the other variables, that is education, income and employment were adequately covered. In view of this, discretion was applied to discriminate in the selection of samples when it was realized that some groups were under represented.

For the final selection of respondents in the communities, the district capitals (urban) and the smaller settlements (rural) were divided into zones (area sampling). One zone was selected and the houses listed. Systematic random sampling was used to select the 'Nth' value based upon the sample size and the number of houses in an area. The selection of the respondents was by random (chance) selection initially. However, when the process of data collection advanced and some sub-variables were found to be under-represented, purposive technique was applied. This was to ensure a fair representation of the various groups. Education, income and employment and occupational status formed the basis of the socio-economic categorization. Income status was stratified into income quintile, from very low to high income, as stated in Table 2.7.

Table 2:7: Income categorization by income quintile

Level of Income	Income per month (in cedis)
1. Very Low	Below 100,000
2. Low	101,000 – 200,000
3. Medium	201,000 – 300,-000
4. High	301,000- 400,000
5. Very High	Above 400,000

Source: Author's Construct, 2001.

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The collection of data on income was guided by the methods used in the Ghana Living Standards Surveys. The components were wage income from employment, household agricultural income, non-farm self employment income, rental income and net remittance and other minor sources (Ghana Statistical Service 2000). Household agricultural income featured more in these three rural districts. Educational status was categorized into three, namely, no formal education, basic education and secondary education and above.

2.5 TECHNIQUES OF DATA ANALYSIS

The data were audited, summarized coded and classified: Descriptive, and multivariate methods were used in the data analysis. Maps and charts have also been used. The survey is mainly correlational and cross – sectional. The independent variables that have been related to effective accessibility (utilization) are income, education and employment status, age, sex waiting time, travel time, distance, service cost and transport cost. The outcome (dependent) variable in the study is utilization, which is measured by the number of times a person attends the health centre or community clinic when he falls sick consecutively for a certain number of times.

The data have been analysed on the district levels and also by health status, that is patients and non-patients. Apart from maps and graphical presentations, statistical tools have been used for the analysis of data. Buor (2001) has successfully used multivariate techniques in analyzing his study on accessibility and utilization of health services in the Ashanti Region, specifically the Kumasi Metropolitan and Ejusu Juaben District. To measure the relative impact of the selected variables, multiple linear regression technique was used.

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Multiple linear regression is used when additional independent variables are introduced into a regression model (Yeomans, 1979), and also when the dependent is continuously distributed (Hennekins and Buring, 1987). In the regression analysis, variables with interaction terms of .05 and less ($P \leq .05$) were considered significant so used for explanation. Correlation coefficients of the independent – dependent variables have been used to assess the strength of relationships, whilst regression values have been used to measure variations in the dependent variables.

Continuous, ranked and dummy data were used for the multiple regression model. Distance, income, travel time, waiting time, service cost, transport cost and age were entered as continuous variables, whilst educational status was ranked and entered as such. There were three categories of educational status namely, "no formal education", "basic education", and "secondary education and above", given quantitative codes of 0,1, and 2 respectively. Sex and employment status, which could not be entered as continuous variables, were entered as dummies.

In the coding of the variables, the ranking scale was used and values assigned to some of the variables like utilization and education. Data entered as a dummy could enter the regression model (Buor, 2001). Human behaviour is subject to change based upon certain prevailing circumstances. Codes were therefore used in a ranked order. In this instance, the appropriate measure of central tendency is the median. The various forms of the variables were given codes that reflected their strengths of relationship with utilization, as indicated in Table 2.8.

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Table 2.8 – Quantitative Codes for Selected variables

Independent/Dependent Variable	Parameters	Codes
Utilization	Scarcely	1
	Moderately	2
	Regularly	3
Educational Status	No formal Education	0
	Basic Education	1
	Secondary Education+	2
Employment status	Unemployed	0
	Employed	1
Sex	Male	0
	Female	1

Source: Author's Construct, 2001.

The assigning of quantitative values to the parameters of the various variables was based on assumptions and results of other surveys. With regard to education, it was assumed that the educated were more likely to utilize health services than the illiterate. Phillips (1981) has noted that, in both developing and developed countries, poorer education, among other factors, place families and children in multiple jeopardy, whilst Wong, et. al (

Table 2.9 – Codes for grouped data

Variable	Group	Code
Income (in cedis)	<100,000	1
	101,000 – 200,000	2
	201,000 – 300,000	3
	301,000 – 400,000	4
	>400,000	5
Waiting Time (in minutes)	30 – 60	1
	61 – 120	2
	> 120	3
Travel Time (in minutes)	<15	1
	15 – 30	2
	31 – 60	3
	61 – 120	4
	> 120	5
Service Cost (in cedis)	<20,000	1
	21,000 – 40,000	2
	41,000 – 60,000	3
	60,000 – 80,000	4
	>80,000	5
Transport cost (in cedis)	<1,000	1
	1,000 – 2,000	2
	2,100 – 3,000	3
	3,100 – 4,000	4
	>4,000	5

Source: Author's Construct, 2001.

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1987) have discovered that improved education of women is associated with increased use of modern pre-natal care. Continuous variables of income, waiting time, travel time, service cost and transport cost were grouped (Table 2.9) for the sake of comparison of the groups with utilization behaviour. The groups were not used for the multiple regression analysis.

2.6 LIMITATIONS OF THE DATA

The quality of data could generally be ascertained, and found to be a fair representation of what obtained in the study area, certain deficiencies notwithstanding. For the macrodata, like that derived by DHS,it is most likely that the problem of age misreporting would be encountered (Awusabo Asare, 1980). The health institutions face the problem of data keeping. The records sections of all the health centres and community clinics in the study area faced great challenges in terms of good record keeping of data. Computation of data is manual. Statistics on attendances had not been compiled for years. Statistics for some years could not be obtained. This affected the determination of trends for most of them.

There were problems with respondents' determination of certain quantitative data like income per month, frequency of attendance at health centres, distance to the nearest health institution, time taken to cover distance, and waiting time. This was particularly so with the illiterate respondents who constituted a greater proportion of the sample than the educated. There were problems with determining qualitative data like quality of health services, and the state of health.

There was also a problem with deriving personal information like marital status. There were some respondents who are in cohabitation who initially responded married. Some

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women felt that it was a stigma for a women to be in cohabitation. It is most likely that some who are not legally married may have responded, "married". There was also the problem of not getting respondents for all categories of the sampled houses. This called for minor changes of the "nth" values in the process of systematic sampling. There was thus an element of bias in the sampling process.

2.7 Conclusion

This chapter has outlined the methodological approaches employed by this study to examine the accessibility to and utilization of PHC in these three rural districts of the Greater Accra Region. Multi-stage sampling involving stratified, simple random and systematic random samplings were used for the collection of data. Basically, quantitative data were collected on the field with the use of questionnaires. Apart from the administration of indepth interview in selected settlements with health institutions and others without health institutions within the study area, Focus Group Discussion (FGDs) were used to collect additional qualitative data. The multiple regression model was appropriately used for the analysis of data. The limitations of the study and problems encountered in the field have also been provided.

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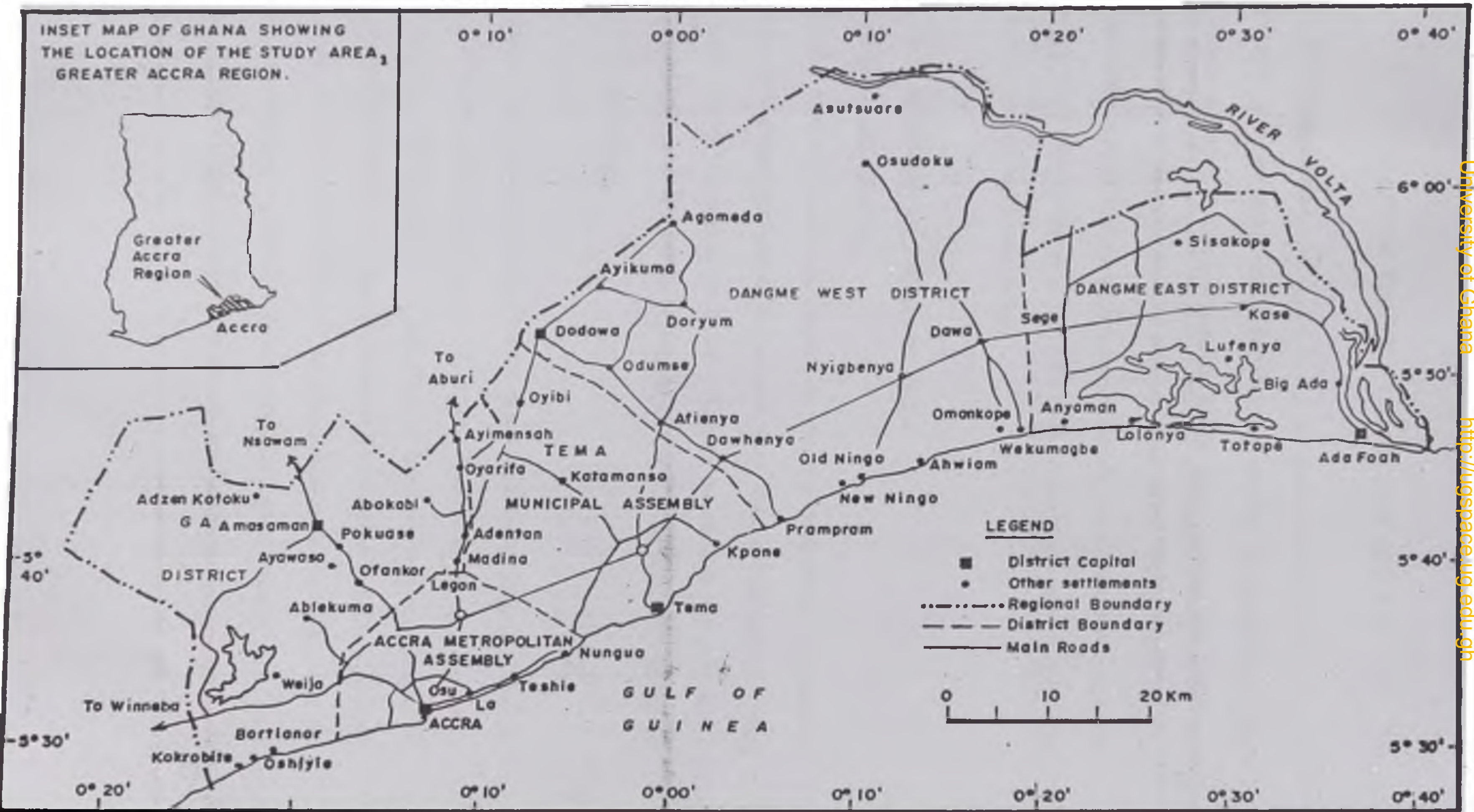
FIG. 3.1 A MAP OF GREATER ACCRA REGION



SOURCE : ACCRA METROPOLITAN ASSEMBLY 2003

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CHAPTER THREE - THE STUDY AREA

3.1 INTRODUCTION

This chapter is on the background of the study area and the key physical and human conditions that relate to the theme of research. The physical conditions have a bearing on the nature of roads, the major transport network in the region. The economic activities like agriculture could be affected by the nature of the soil, hence income and nutrition of the people could show a reflection. The status of employment and income would affect utilization of primary health care services.

3.2 BACKGROUND TO THE STUDY AREA

3.2.1 Administrative Divisions

The Greater Accra region is divided into five administrative districts (Fig. 3.1), each with a director for health services responsible for health administration in the districts. There is a District Health Management Team (DHMT), under the chairmanship of the district director of health services, which is responsible for the operation of the Primary Health Care (PHC) programme.

Each District Assembly, the political authority in a district, has a health committee that takes technical decisions on health issues in a district. There is also a regional director for health services who oversees the administration of health institutions owned by the Ministry of Health (MOH). He chairs the Regional Health Management Team (RHMT). In principle, the district and regional health administrations in consultation with the District Assemblies and Regional Co-ordinating Councils, make recommendations for the location of health facilities in the respective areas of jurisdiction.

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3.2.2 Physical Conditions

The south-east coastal plains, mostly covered by the Dangme East and Dangme West districts of the Greater Accra Region, are very flat and contain only a few isolated hills, for example Shai, Krobo, Ningo and Osudoku hills, which rise abruptly from the surrounding plains. The hills have been likened to islands standing clearly and abruptly above the sea; hence they have been called inselbergs, literally "island mountains" (Dickson and Benneh, 1988). The general elevation of the land, except in the case of the inselbergs is not more than 75 metres above sea level, and at some places on the coast the land is even below sea level and is subject to periodic invasions by the sea. Between Accra and about the Songaw Lagoon, the coastline is fairly smooth, without cliffs, and is marked by sand bars, the Volta delta, the only one of its kind in the country and by numerous lagoons.

West of Accra, the plains show different characteristics. The land is not undulating since the hills, especially of the Ga District, show steep sides and rise almost abruptly from the surrounding plains. Various types of rock are found here, but the most widespread are the granite which also forms most of the hills (Dickson and Benneh, 1988). Road construction in such areas are very expensive. The driest area in Ghana is found in the south-east coastal plains where the mean annual rainfall is less than 75 centimeters. The area experiences dry equatorial climatic conditions with two rainfall maxima with marked dry season. The mean annual rainfall is between 74-89cm. The highest mean monthly temperature of about 30°C occurs between March and April, and the lowest, about 26°C in August. Highest average monthly relative humidity does not exceed 75%, and the lowest is about 60% (Dickson and Benneh 1988). There are variations in rainfall from year to year, for example Accra records from nothing to as much as 6.32 cms. of rain in different

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years for the month of August. These fluctuations, which cannot be predicted, can create problems for the farmers. Ungravelled roads become very muddy during the rainy season, and it is common for vehicles to get stuck in the mud. Roads adjacent to streams are flooded during the rainy season.

3.2.3 Population

According to the 1960, 1970, 1984 and 2000 Population Census Reports, the population of all three districts has increased, but at different rates. The population increase in the Ga District from 31,308 in 1960 to 556,581 in 2000, that is 1678% is astronomical compared with that of the Dangme East District (129.8%, that is from 40,543 to 93,193) and Dangme West District(125.9%, that is from 42,543 to 96,193) rate of growth respectively (table 3.1).

Table 3.1 - Basic Population Statistics of the Ga, Dangme East and Dangme West districts

District/Year	1960	1970	1984	2000
Ga	31,308	58,674	136,358	556,581
Dangme East	40,543	62,730	69,550	93,193
Dangme West	42,837	63,125	70,369	96,776

Source: Population Census Reports (1960, 1970, 1984, 2000).

High population density in the Ga District is found along the border with the Accra Metropolitan Area (AMA) and along its southern border where settlements such as Bortianor and Oshie can be found. This depicts the expansion of the metropolitan area into the hitherto rural districts. This is basically the result of high income inhabitants of Accra putting up new houses away from the AMA area, in the peri-urban sections. Low income dwellers in central Accra are flocking to the rural sections to avoid paying the relatively higher rents for accommodation. The rates at Amasaman and the other rural parts of the region are far cheaper. The relatively large settlements in the Ga district

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include Madina, Mallam, Bortianor, Pokuase, Weija, Dome, Kwashieman, Ofankor and Adzen Kotoku. The Dangme East and the Dangme West Districts, on the other hand, have experienced lower growth levels. The intercensal growth rate for 1970 and 1984, for example was below the national average estimated for the same period as 2.6%, underlying the fact that these two districts are losing their historical importance as commercial centers and thus becoming less attractive and so out migration is quite high. The Dangme West District has a slightly lower population density than the average for the country (55.3) persons per sq.km as against the national average of 63 persons per sq.km. The population is concentrated along the coast especially in the larger settlements like Prampram, Great Ningo and Lekpongunor.

Other areas of concentration of population are Dodowa in the West and Asutsuare in the north of the district. A significant feature of the district is that the central area is virtually empty with hardly any settlements in it. The bulk of the population is scattered in relatively small settlements with populations under a thousand. The Dangme East District capital, Ada has a large concentration of people. The islands are isolated and generally have fewer inhabitants. The largest island, Pediatorkope has a relatively higher number of people dwelling there, in comparison to the other isolated islands, accessible only by canoe. Large portions of the district are virtually empty, like its neighbour district, Dangme West. There is a big problem of out-migration in these rural parts of the Greater Accra Region.

3.2.4 Health Conditions

The health situation of the people is not very encouraging, judging from the reported cases of endemic diseases such as malaria, diarrhoea, and skin diseases. The study has also

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recorded a considerable number of HIV/AIDS cases as well as the Buruli Ulcer, which are fatal diseases. Details of the health conditions of the people can be found in Chapter 5 of this study.

3.2.5 Transportation Network

The chief means of transport in the Ga District is by roads, footpaths and railways, whilst in the Dangme East district, people travel by roads and footpaths. Canoes are used to and fro the islands in the Dangme East district. There are no railways in the Dangme East and Dangme West districts.

Major roads connect the urban and sub-urban settlements. Dodowa, Amasaman and Ada are linked to Accra by bitumen/asphalt – surfaced class I (major) roads. The peripheries are devoid of major roads. Rural settlements are poorly served with major roads. Some of the secondary and minor roads, which connect them to the urban and senior urban centes, are in such a bad state that drivers are discouraged from plying them. During the rainy season, such roads become almost unusable. Potholes and gullies are common features found on them. The rural areas make use of footpaths, especially where they have access no roads and transport facility. Footpaths defy relief obstruction. They go through all forms of relief.

3.2.6 Employment, Income and Educational Status

Poverty has been identified as a factor which hinders the utilization of health services. Poverty is the condition of being poor, not having sufficient money or means to live comfortably (Chambers,1997). It means the lack of the basic necessities of life (Tulloch,1993). Berman et al (1987), showed that the utilization of all types of care,

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except traditional care, increased with level of income. Dutton's (1986) studies portray the fact that overall, low economic status of patients was the most significant obstacle to utilization of health services. Financial and economic challenges in the study area hinders the utilization of health services in the rural districts.

Table 3.2 shows occupations of 580 respondents (non-patients and patients) in the study area. Over 50 per cent of them are unemployed (that is 299 out of 580). A total of 80 out of 580 of them are farmers, that is 13.8 per cent of all the heads of households/spouses and patients). The Dangme West Districts had the highest percentage of its respondents working as farmers that is 16.9 per cent), compared with 13.7 per cent from the Dangme East District and 11.9 percent from the Ga District). The proportion of fisherfolks is higher in the Dangme East District (11.9 per cent), Trading activities take place in all the districts. Ga District and Dangme West District had 8.1 per cent of its respondents working as traders, compared with 7.5 percent from the Dangme East District.

Table 3.2 – Non-patient and patient respondents and their occupations in the study area.

District	Ga District		Dangme West District		Dangme East District	
Occupation	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Farming	31	11.9	27	16.9	22	13.7
Fishing	3	1.2	2	1.3	19	11.9
Trading	21	8.1	13	8.1	12	7.5
Cattle ranching	5	1.9	9	5.6	2	1.3
Service Providers	9	3.5	6	3.8	3	1.9
Teachers	13	5.0	7	4.4	5	3.1
Artisans	14	5.4	5	3.1	4	2.5
Drivers	10	3.9	3	1.8	4	2.5
Construction	5	1.9	-	-	-	-
Stone Quarrying	8	3.1	-	-	-	-
Sand Winning	5	1.9	1	6	-	-
Unemployed	127	48.8	87	54.4	85	53.1
Pastor	5	1.9	-	-	1	.6
Salt making	-	-	-	-	3	1.9
Civil Servant	4	1.5	-	-	-	1.9
Total	260	100.0	160	100.0	160	100.0

Based on Field Data; 2001.

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A higher percentage of Dangme West respondents are cattle ranchers that is 5.6 per cent, compared with 1.9 per cent from the Ga District and 1.3 per cent from the Dangme East Districts, respectively. Other typical rural activities included construction, storm quarrying, sand winning and salt making. Construction work, store quarrying and sand winning activities are more concentrated in the Ga District than in the 2 other rural districts. Infact, no respondent in the Dangme East District was involved in the above mentioned activities. Salt making takes place in the Dangme East District, and not the Ga and Dangme West Districts. More drivers were interviewed in the Ga Districts (10) than in the Dangme West (3) and Dangme East (4) districts, showing the presence of more vehicles in the former than in the latter.

Income plays a very important role in the lives of all human beings. It is the most important socio-economic variable that influences access to health facilities. According to Agyepong (1999), the population in the Dangme West District is generally poor with the main income generating activities being subsistence farming and fishing along the coast and the Volta River. The predominance of rural population reflects in the occupational distribution in the district. Agriculture dominates the occupation in the district.

Table 3.3 shows the distribution of small-scale industries in the districts.

Table 3.3 Distribution of small-scale industries in the Dangme West district by their type and number

Kind of Industry	Total Number	Percentage
AGRO-BASED Bakery, gari processing, milling, Fish smoking Distillation	207	57.5
CLOTHING Dressmaking, textile, mat weaving	35	9.7
WOOD BASED Carpentry, Charcoal burning, Boat building	29	8.1
METAL Blacksmithing, fitting	14	3.9
OTHERS	75	20.8
Total	360	100.0

Source: District Planning Coordination Unit, 1996

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The Baseline survey shows that agriculture (crop farming, livestock and fisheries) is the major activity in the district, employing 58.6% of the people. About 22.1% of the people are involved in trading activities. Processing of agriculture products such as bakery, gari processing, milling, fish smoking and distillation is also very important in the area of industry (57.5%). Fishing employs about 6.4% of the labour force. More people could be employed in this sector if the people appreciated it better. Its labour intensive nature puts people off.

Compared to the Dangme East district, where fishing is a more lucrative job and employs 45% of the people (Dangme East Assembly Report, 1998), some of the fishermen obtain a good income from the harvest of oyster, crabs and fish from the Volta River. The women sell these items in the markets in the surrounding villages and settlements. Some are also sent to Accra and other big towns for sale. Demand for these products are high and so fetch a good price. Ada salt is another important product on the Ghanaian and even international market in the neighbouring countries like Togo, La Cote D'Ivoire and Burkina Fasso.

The Ga District has the highest number of civil servants in the formal sector. The Dangme West District records only 8.4% of its adult inhabitants as workers in the tertiary services. Majority of the dwellers in these three rural districts of the Greater Accra therefore depend on the land, through farming, sandwinning and other primary forms of production for their livelihoods. The farms are generally small and crop yields are low. This results in low income and great difficulty in paying school fees, health center bills and medicaments they may be requested to purchase in times of ill health. Rural dwellers depend mainly on subsistence or small scale agricultural-related income. The vagaries of the weather, the

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marginal soils, the high cost of agricultural inputs, the lack of post harvest handling facilities and so on makes income levels quite low.

The whole nation is in serious economic crisis. Ghana gained independence from Britain in 1957. The per capita income of Ghana at independence stood at a comparable level to that of Mexico and South Korea and was classified as a medium-income country. Growth slowed in the following two decades and by the beginning of the 1980s, Ghana's economy was in crisis. The economy has been fragile, and remained dependent on a few primary exports, especially cocoa and timber. Like many developing countries, unstable commodity prices on the international market make these unreliable sources of earnings (Anyinam,1989; Boateng,1990). Gross mismanagement, corruption and political instability have also contributed greatly to the economy's decline. Many policies simply remained on paper or failed to be implemented because of coup de'tat or other changes in governments. One can only lament over the fact that the country has had at least four development plans drawn up since independence, but none has been implemented fully (Boateng, 1990).

The net effect of this economic crisis was a continuous decline in most sectors of the economy. Problems ranging from high unemployment, low industrial performance, declining health services and increasing poverty became the hall mark of the day. In April 1983, Ghana accepted an International Monetary Fund (IMF) programme for economic recovery and structural adjustment. The programme has so far benefited the tradable sectors at the macro-economic level. These gains at the macro level, however, have not trickled down to the micro level. It has been observed that the adjustment process by its very nature inflicts severe hardships on certain vulnerable groups (Key, 1987).

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Ghana's experience has not been an exception. The programme has improved the export of most primary products by making them relatively cheap externally due to the devaluation of the cedi relative to the dollar (US), but at the same time limiting the productivity of the peasant farmers because of low prices paid to them by private middlemen or state companies like the Cocoa Marketing Board (CMB). The industrial sector has also seen some improvement but this has had little impact on the low-income group since they do not have the requisite capital to participate in this sector (Anyinam, 1992).

Hence, despite the impressive macro-level growth statistics, both the absolute and relative levels of poverty increased among both the urban and rural populations during the adjustment period (Sowa, 1993). The main cause of poverty is in most cases structural. The political, economic and social structure internationally and nationally decides who is going to get what, where and how (Smith, 1979). Rehabilitation of health infrastructure and improved management of health resources are proceeding under the SAP. But inasmuch as a larger percentage of the poor have no access to medical facilities whatsoever, subsidies provided for health care benefit mainly the non-poor.

Employment, income and educational status have an effect on patronage of health services. These variables are the principal enabling factors in the utilization of health services. The unemployed would not earn income to be able to patronize health services, and the level of income determined the level of health service one can patronize, whilst education connotes enlightenment, modernization, and hence effective utilization of health services. It could also connote a job with good pay, therefore the financial accessibility to health services.

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Students, homemakers, vocational trainees, disabled people and children depend on the employed to cater for them. There is a high dependence ratio of 123 where a hundred employed labour had to cater for the needs of 123 economically inactive and unemployed. The situation might be worse today with mass retrenchments due to the introduction of the Structural Adjustment Programme (SAP) and the failure of the government to create more jobs. The worker receives a minimum wage of eleven thousand cedis (11,000). Large sections of the mass workers can not afford the cost of health services. The introduction of the cash and carry (CC) scheme in 1992, and government's removal of subsidy on health, have aggravated the health utilization situation.

The illiteracy problem of the population in the study area is not encouraging. Taking Ghana as a whole, 43.5 percent of the total population of school age have never been to school; and, whilst 35 percent of the male population have never been to school, 51.7 percent of the female have not (Ghana Statistical Service, 1987). The high illiteracy rate has implications for the patronage of health services. The educated are more likely to get employment with good pay which will give them greater access to health services.

Secondly, the educated are more aware and conscious of their health conditions, so they will patronize health services more than the uneducated. The socio-economic and environmental diversity in the study area makes the theme an interesting study in the selected areas. Results of such a study would be of keen interest to policy markers, since they will cover the broad spectrum of human resource development, which is a pre-requisite to socio-economic development.

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3.3 Conclusion

The Dangme East District and Dangme West Districts are losing their historical importance as commercial centres and thus becoming less attractive and so out migration is quite high, compared to the Ga District which is attracting more people, in fact population increased 1678% from 31,308 in 1960 to 556,581 in 2000, compared to 40,543 to 93,193 that is 125.8% for the Dangme East District and 42,837 to 96,776 (125.9%) for the Dangme West District respectively (Population Census Reports, 1960,2000). Preventable diseases such as malaria, diarrhoea, respiratory tract infections are the main health challenges in these rural districts. Poor drinking water and insanitary environments compound the challenges in the area. Low income from primary occupations such as farming, fishing, huntng, sand-winning, as well as no or low formal educational backgrounds of most inhabitants further complicates the challenging issues at stake. Access to transportation is best in Amasaman, Dodowa and Ada, the districts capitals. Outside these communities inhabitants are confronted with transportation problems and move around more on foot using footpaths and untarred roads in the various local communities.

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CHAPTER FOUR

PRIMARY HEALTH CARE SYSTEM IN THE GA; DANGME EAST AND DANGME WEST DISTRICTS

4.1 INTRODUCTION

Primary Health Care is a comprehensive system of care, prevention, treatment, community development, management and organization. It is a shift from curative to preventive health care. It is based on a three-tier delivery system, the community level (A), the health institutional level (B) and district level (C). Each level B health Centre is to serve people with is 8 km radius (Agyei, 1984). Adibo (1986) notes that Primary health care is a tool for integrated community development.

For the success of the PHC programme, there shall be certain basic facilities such as good housing, potable water, increased food production, as well as adequate food and nutrition. It is, therefore, important for all institutions which provide these services to work together with the MOH in the planning and implementation of PHC. For example, the provision of potable water in adequate quantities to all communities is one of the main components of the PHC. According to Adibo, many of the diseases found in our communities are related to the provision of unsafe drinking water. Diseases such as diarrhoea, guinea worm and bilharzia are basically due to lack of adequate supply of potable water. Similarly, roads and transport play a critical role in access to and utilization of health facilities in general.

4.2 OBJECTIVES OF PRIMARY HEALTH CARE

The main objective of PHC is to re-orientate the health service delivery system for the benefit of the people in rural areas. They form the majority of the nation's population, yet are neglected in terms of health facilities. The high rate of mortality is attributed

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to inadequate and poor services for pregnant women and lack of doctors, trained midwives, public health nurses and other health workers. There is the need to shift from curative to preventive health care, from an urban-oriented, lopsided health care delivery system to a rural, community-based form of health care (MOH Report, 1977). The Ministry of Health in 1977 had this policy "Every Ghanaian shall have ready access to basic and primary health care. A primary health system including environmental and personal health components built on the principle of direct community participation will serve as the base for all health care" (MOH, 1977).

PHC is an integrated approach to health care delivery system aimed at meeting the needs of the people, especially in the rural areas. It has its health component, agriculture, water supply, building of a sanitary environment and the education of the public. The auxiliary health personnel is recruited from the community. A health development committee is set up within the local council to play an essential role in community development. Specific objectives of the Primary Health Care in the Ga, Dangme West and Dangme East Districts is to achieve basic primary health care for 80 percent of the people. Also to effectively attack the disease problems that contribute to 80 percent of the unnecessary death and disability afflicting the people (MOH, 1977). Preventive health care means as much caring as possible should take place at the community level, not in the hospitals and health centers. The provision of simple appropriate care under PHC prevents or controls diseases which kill many people. The use of immunization, for example has reduced deaths caused by measles, poliomyelitis, tuberculosis, tetanus, whooping cough, yellow fever and diphtheria (Mensah, 1997). Simple medications, keeping a clean environment and health education go a long way to reduce the morbidity and mortality rates in the various communities (Twumasi, 1981). Primary Health Care aims specifically at reducing the

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high rates of blindness, lameness, deafness and dumbness and other disability through its programmes at the community level. It does not require highly trained personnel and expensive equipment. Preventable conditions such as parasitic diseases, nutritional disorders, common infectious illnesses of childhood are made possible long before the illness occurs, not after they have taken place. It is cheaper and more effective to prevent diseases rather than to cure them (Mensah, 1997; Acheampong, 1998).

The MOH's strong desire to reach the majority of people in the Ga, Dangme East and Dangme West districts, as well as all the other districts in Ghana with health services, preventing diseases responsible for much ill-health (morbidity as well as disability) and mortality has brought about a mobilization of resources and health personnel working with the various local communities to achieve health for all the people. There is a reduction in the rates of mortality and morbidity caused by conditions for which prevention, easy treatment and control exist.

Through immunization and maternal and child health programmes some communicable diseases, nutritional deficiencies and management of complications in pregnancy are being solved. Trained TBAs, supervised by the Public health nurses are helping to solve problems of health at the community level. Simple tasks are being carried out daily by people without sophisticated training using simple equipment. This new approach to health care provision is seen as part of the national effort in social and economic development with community involvement at each level and support from health centers and hospitals. Together they make up the system for Primary Health Care (MOH, 2000).

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4.3 SPATIAL DISTRIBUTION OF HEALTH FACILITIES IN THE STUDY AREA

There are no hospitals (Level C) in the three districts. Each of the district capitals (Amasaman, Ada and Dodowa), however has a health centre (Levels B) manned by a medical assistant, and public nurses/midwives, environmental health workers and pharmacists/dispensers. Rural medical and nursing aides and midwifery aides are available in some of the smaller towns and settlements. Community clinics are available for the smaller communities of about 500-1000 people. Village health workers and traditional birth attendants, especially the trained TBAS are of great importance in this level (A). Services provided are mainly in the fields of prevention, hygiene, sanitation, first aid, simple diagnosis and treatment, antenatal and post natal care, child care and control of communicable diseases.

Most communities, unfortunately have lost most, if not all, of their village health workers to the now popular job of drug peddling in all parts of the three rural districts, selling simple drugs like APC, paracetamol, capsules ("abombelt") and local herbs in solution, powder or tablet forms. Popular herbal drugs supplied by TV and radio advertised companies such as Top Herbal Centre and Apico Centre include drugs curing malaria such as class malaquin; typhoid drugs; Apico Blood Tonic. Others include Madam Catherine Blood tonic; Fama Nyame Herbal medicine for body pain, lumago; Mercy cream for all skin diseases; "Aberewa Bebo bool" (ball) for stronger bones for old men and women, athletes, especially foot ball players; Top Blood Tonic for malaria; Akobalm for body pains; mala herb for malaria, Alafia bitters, tonic, Dr. Alhaji Harwa Special Power herbal drugs and Adom Strong by Dr. Bediako.

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There are aggressive adverts on all television and radio stations, as well as loud speakers at the various lorry parks all over the three rural districts and even in Accra, the capital town of Ghana. These big herbal centres based in Accra have a fleet of vans/vehicles which distribute the traditional herbal medicine among others, to all parts of the rural districts. There is brisk business going on there. They have agents all over the districts and some clients buy direct from the distributing vans. Some of the drug vendors are based in the lorry parks, others travel on board passenger buses selling their drugs in a very humorous way, backing their advertisements with interactive stories and testimonies. The researcher interviewed 10 of these drug peddlers and it is interesting to hear that a bottle of a particular herbal concoction selling between 4,000-12,000 cedis (in different sizes) can cure piles, menstrual disorders, asthma, fever, weakness in the male organ, among others.

Atta Mensah, a drug vendor at the Amasaman lorry park told the researcher his drug, Adom Strong" produced by Dr. Bediako treats menstrual problems, waist pains, eye troubles, piles and onchocerciasis!! Incidentally, the manufacturers, mostly called "doctor", have not attended formal school of pharmacy!!

The belief that traditional herbal medicine is used only by illiterates in the rural area is a big myth. Well-educated university trained professionals are also using some of these drugs, especially where orthodox medicine has not been able to cure them of their peculiar ailments.

Figure 4.1 shows the spatial distribution of the health facilities in the three rural districts of the Greater Accra Region. There is a high concentration of health facilities in the urban

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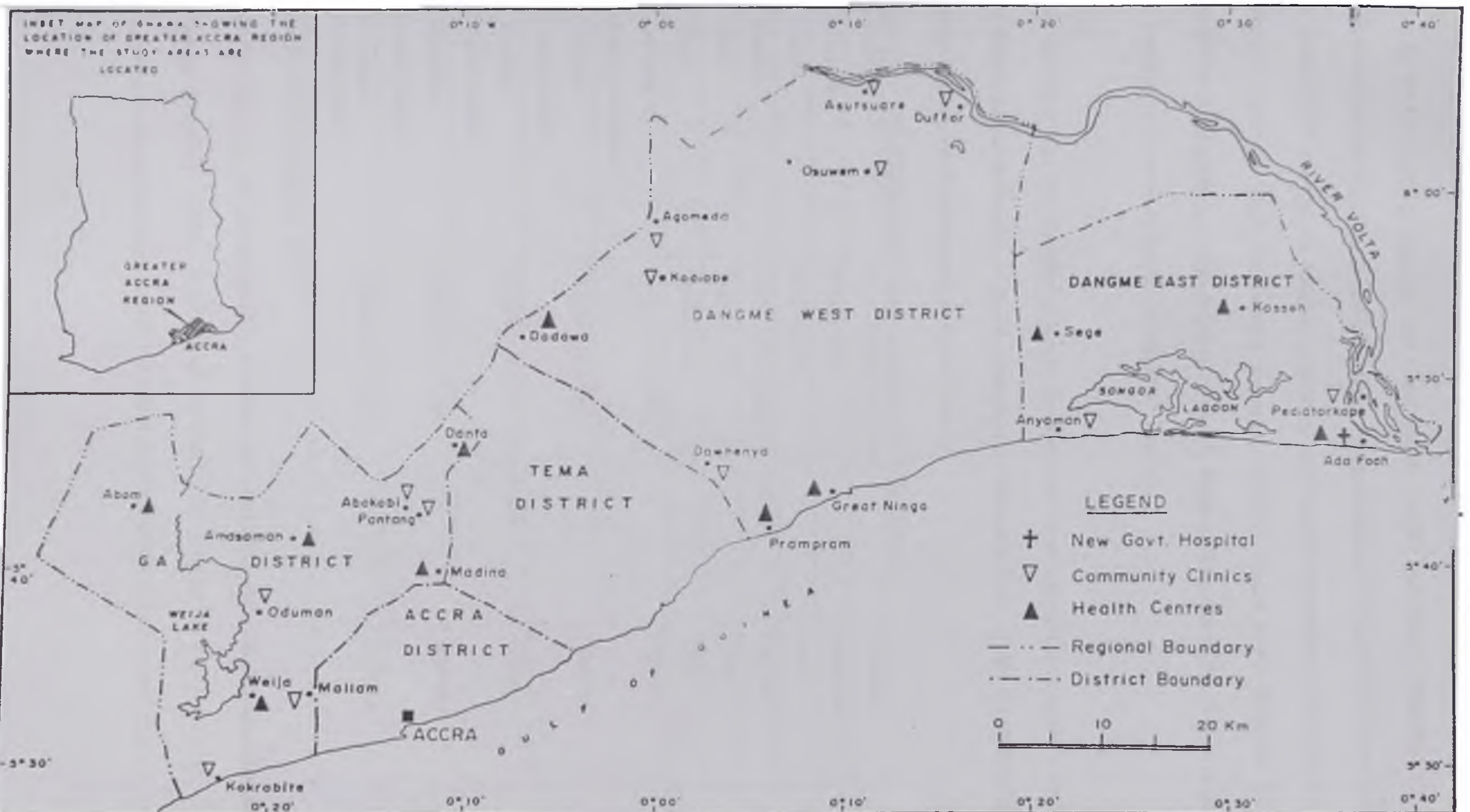
FIG. 4.1 SPATIAL DISTRIBUTION OF PRIMARY HEALTH CARE FACILITIES IN THE GA, DANGME EAST AND DANGME WEST DISTRICTS.



Source: Survey of Ghana — Accra.

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areas. In the Ga District, Maternal and Child Health (MCH) and Family Planning (FP) services are provided by 3 rural health centers , the communicable Disease Centre and the five purely MCH clinics. In addition, growth monitoring and immunization services are offered on outreach basis (Ga District Assembly, 1988). Major health problems are catered for in hospitals and polyclinics in the Accra Metropolitan Assembly (AMA) or in the hospital at Nsawam in the Akwapim South District.

The Ga district has ten Ministry of Health facilities and these form the basis upon which the district has been divided for health planning and administration. Table 4.1 shows the distribution of health institutions in the Ga District.

Table 4.1 - The distribution of health institutions in the Ga District

Sub districts	Type of health institution	Location
1. Amasaman	Health centre	Amasaman
2. Danfa	Health Centre	Danfa
3. Madina	Reproductive and Child Health	Madina
4. Obom	Health Centre	Obom
5. Weija	Health Centre	Weija
6. Oduman (Under Amasaman)	Community Clinic	Oduman
7. Abokobi (Under Danfa)	Community Clinic	Abokobi
8. Pantang (Under Danfa)	Reproductive and Child Health	Pantang
9. Kokrobite (Under Weija)	Community Clinic	Kokrobite
10. Amanfro (Under Weija)	Community Clinic	Ngleshie

Source: MOH Amasaman, 1998

Studies show that the district suffers from low patronage or usage of health facilities (Ga District Assembly, 1998). Even though several factors account for this phenomenon, it has been explained that distance and the nature of communication/road network pose

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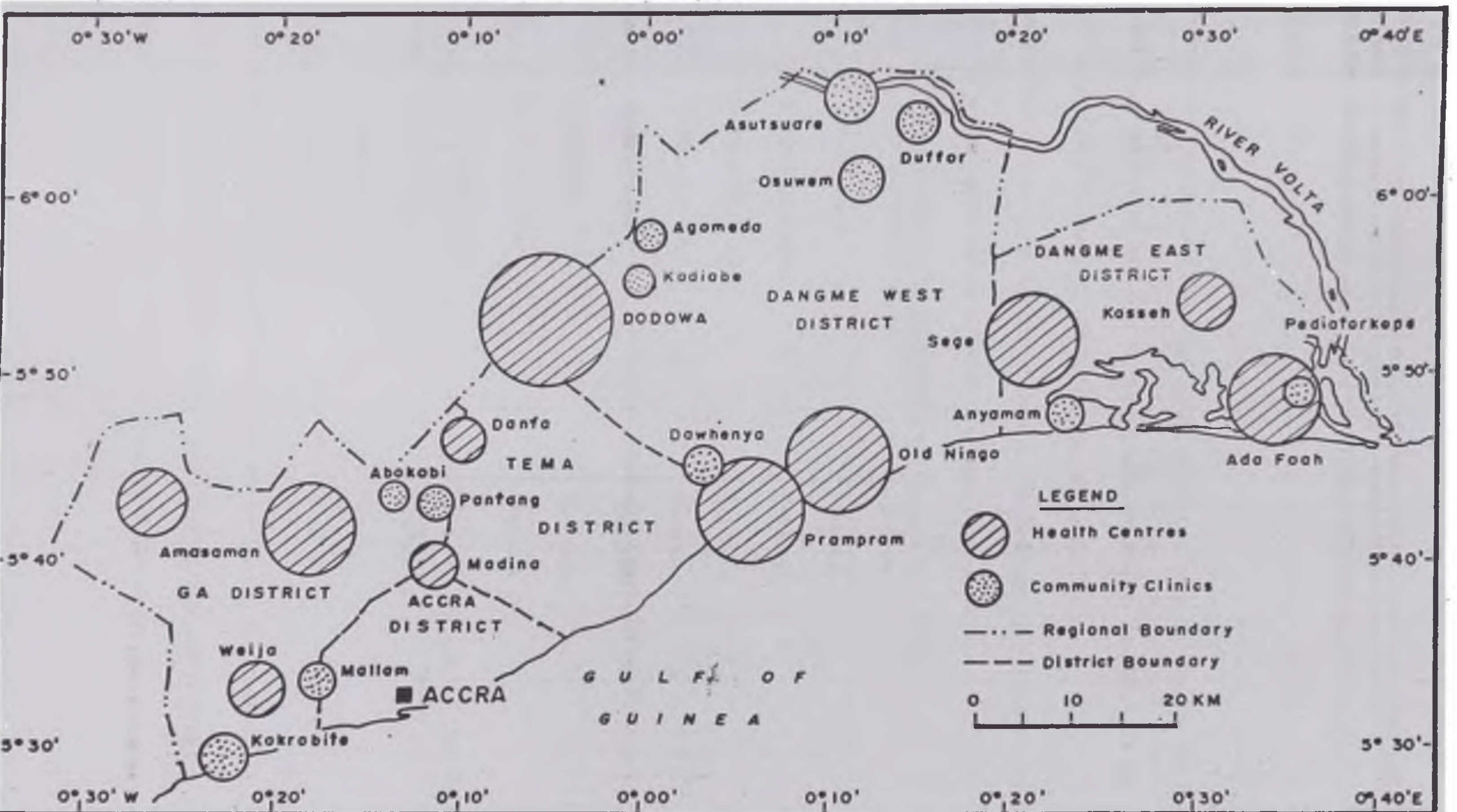
FIG. 4.2 SPHERE OF INFLUENCE OF PRIMARY HEALTH CARE FACILITIES IN THE GA, DANGME EAST AND DANGME WEST DISTRICTS.



SOURCE: COMPILED FROM DHMT AND CERSGIS 2003

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problems of accessibility to health care facilities. Kofie (2000) indicated that communities living along or close to the main Accra-Nsawam corridor appeared to patronize health care facilities better than those further away. Stock (1983) also found distance to be a major determinant of facility use.

For administrative purposes and to facilitate health services delivery, the Dangme West district has been subdivided into four health sections, coinciding broadly with the traditional areas. Table 4.2 shows the 10 PHC facilities in the sub districts.
There are four health centers, one in each sub-district, and six health posts distributed in the district. The health posts are not uniformly distributed in the district.

Table 4.2 - Distribution and type of Health units in the Dangme West district

Sub-district	Type of Health Institution	Location
Dodowa	Health Centre	Dodowa,
	Community Clinic	Kordiabe,
	Community Clinic	Agomeda,
	Community Clinic	Osuwem
Prampram	Health Centre	Prampram
	Community Clinic	Dawhenya
Osudoku	MCH/FP Centre	Asutsuare
	Community Clinic	Duffor
Great Ningo	Health Centre	Great Ningo
	Community Clinic	Tsopoli

Source: MOH, Dodowa, 2000

Dodowa sub district with a land area of 2428sq.km has two health posts, Prampram with a land area of 1272sq km has one health post, Great Ningo covering an area of 5846 sq.km has one health center, whilst Osudoku with an area coverage of 3707 sq km has two health

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posts. This analysis shows that there is a deficiency in the spatial distribution of health facilities in the Dangme West district.

Figure 4.2 shows the distribution of PHC facilities in the Ga, Dangme East and Dangme West districts with their areas of coverage depicted by buffers. According to Adjei (1989), Level A PHC Centres are supposed to cover an 8km radius whilst the level B facilities which provide supervision for the level A centers are also to cover an 8km radius. These radii have been used to generate buffers demarcating the spheres of influence of the health facilities in the three rural districts.

Portions of the districts, such as the Osudoku and the Great Ningo sub districts are not covered (Fiah, 2001). Dodowa and Prampram sub-districts have great influences and get into the adjoining districts. The same disparities can be found in the Ga, and Dangme East districts. The case in the Ga District is peculiar in the sense that the good transportation network linking it to the Accra Metropolitan area gives patients greater access to the big hospitals such as the Korle Bu Teaching Hospital, Achimota, Nsawam Hospital, 37 Military Hospital, Police Hospital, Polyclinics and private clinics.

Cases from the Dodowa Health Centre are referred to the Akuse Government Hospital in the Yilo Krobo district (Eastern Region), the Battor Mission Hospital in the North Tongu district (Volta Region) and the Tema General Hospital. Health providers in the Ada Health Centre also refer cases to the Tema General Hospital, Ridge Hospital as well as to the Battor Mission Hospital.

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The Dangme East district also faces a great challenge in the distribution of health facilities. It has four subdistricts – Ada, Sege, Kassah and Pediatorkope. Ada has a health center which is always congested with patients coming from the mainland and the isolated islands in the Volta Lake area. They by-pass community clinics such as the Pediatorkope unit and cross the lake in canoes to see the medical assistant and senior nurses working at the Ada Health Centre. The relatively bigger and better accommodation facility making it a health center at Pediatorkope is shunned because it has no medical assistant or doctor working there. The inhabitants of the islands look down on the enrolled nurse, and her assistants manning the facility. It is only emergency cases such as accidents on the farm, pregnancy complications and other life threatening cases that are brought to the nurses. A few inhabitants however patronize the clinic from time to time.

4.4 IMPLEMENTATION OF PRIMARY HEALTH CARE PROGRAMME

PHC has 8 component parts which are its essential elements. These are food supply and nutrition, water and sanitation, mother and child health, immunization, prevention and control of local endemic diseases, management of common illnesses and injuries, provision of essential drugs, and community mobilization and awareness.

These essential elements do not take place in a vaccum. They operate under a three-tier structure-community (A), health centers (B), then the hospital (C) at the district level. Emphasis is placed on the community level where some of these components interact to prevent diseases, in the first place. Adequate water supply is very much desired. Adequate nutrition and safe sanitation all help promote good health, thus, preventing

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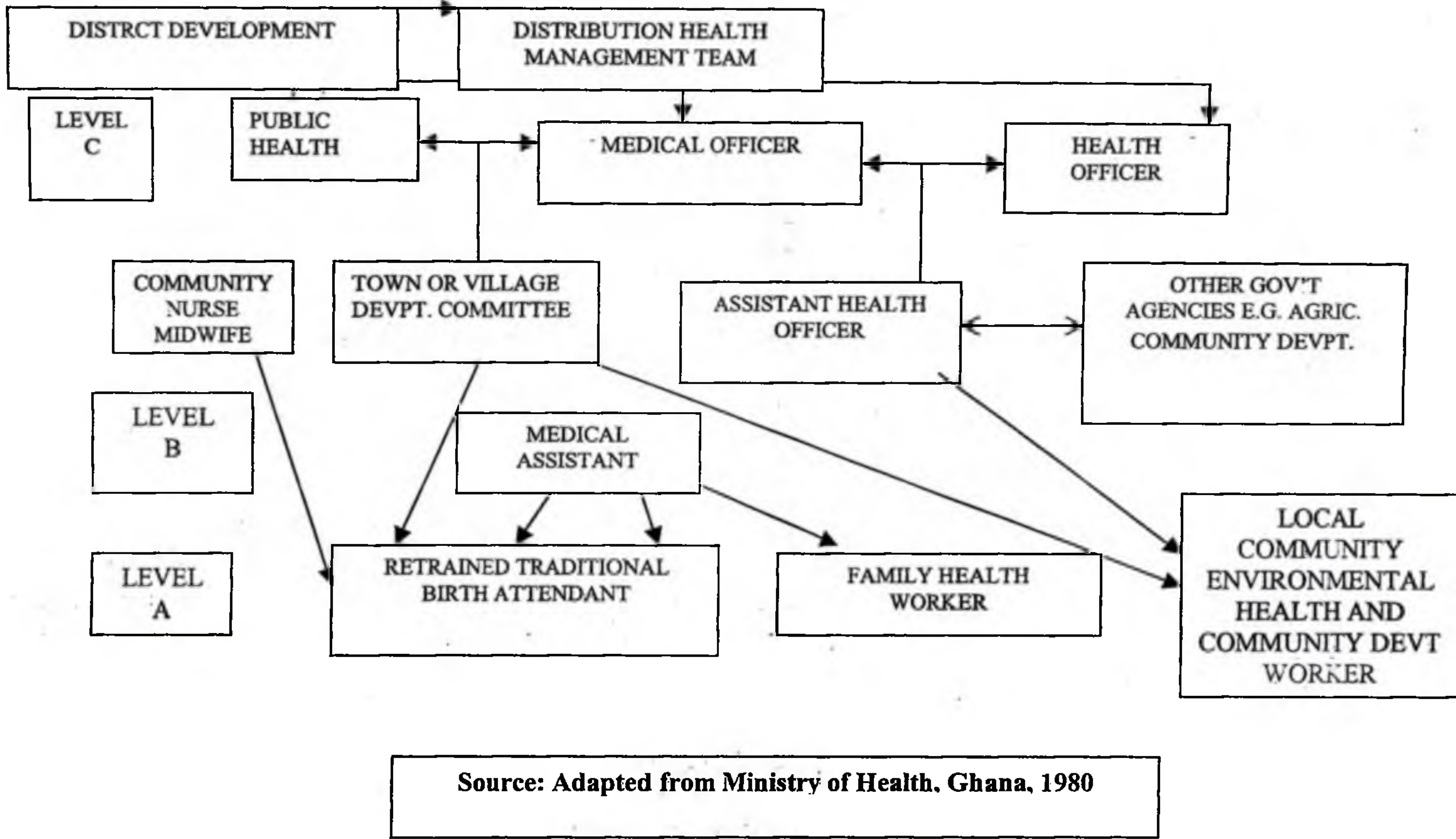
FIG. 4.3: ORGANISATION STRUCTURE OF PHC SYSTEM SHOWING MANAGERIAL AND COMMUNICATION STRUCTURE



Source: Adapted from Ministry of Health, Ghana, 1980

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sickness from attacking individuals on the community as a whole. Immunization of children against major diseases like measles, is a top priority, right at the community level. Mother and child care and family planning services promote good health for the family with special emphasis on the two, who are the most vulnerable in the community.

PHC can operate better with community participation in deciding on and supporting preventive health plan. The back-up referral service for training of PHC workers, especially the TBAs, is of prime importance to the smooth running of this grass-root health system. Referral service is also important for health problems requiring more qualified care at the health center or district hospital. Locally trained health workers also help with the treatment for cuts and common ailments. Parental education in nutrition and preventive health methods help build a strong and healthy family, free of diseases and high medical bills.

The Primary Health Care systems in the Ga, Dangme East and Dangme West districts operate on three levels.

1. Community Level (A)
2. Health Institution Level (B)
3. District Level (C)

(Refer to figure 4.3). There is a strong reciprocal working relation among these three levels and their management and organization. They form a complete system. Level A receives training and supervision from levels B and C. Serious medical problems and complications are referred to levels B and C. Level B also refers serious cases to level C. Training and supervision of work at level B is done by level C. Level A is a village or small community, serving a population of about 500-1000 people. The community is

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involved through a village health committee and village health workers working in association with TBAs and local healers.

Services provided are mainly in the fields of prevention, hygiene and sanitation, first aid, simple diagnosis and treatment, antenatal and post natal care, child care and control of communicable diseases. Agomeda, Kordiabe, Osuwem, Dawhenya, Duffor are good examples of this type of primary health care (Level A health care) programme. The village health workers were very conscientious and busy, taking care of patients. Most rural areas have no village health workers. Some like Yakubukope are so tiny and isolated that no worker is willing and ready to stay and work there.

The people in small communities are visited by outreach teams from Dodowa, Amasaman or Ada, occasionally when a vehicle is available. Medie, Tuanikope, and the other smaller villages also receive outreach team from time to time. TBA, both trained and untrained, in these small communities help in antenatal and postnatal care, first aid and health education. Traditional healers assist with herbs for treating boils and other simple ailments. The drug peddlars (some are former village health workers) and injectionists also vend drugs in these isolated rural areas.

Level B1 is a sub-centre or health post serving a population of 5,000 – 10,000, staffed by two to three paid workers, for example, rural medical and nursing aides and midwifery aides. It provides diagnostic and outpatient service, holding beds for acutely ill patients, antenatal and under-five's clinics and midwifery services. Pediatorkope, and Ngleshie Amanfrom are good examples of level B1 health care. They refer cases beyond their ability to the Ada Health Centre or nearby health centers. Some pregnant women for

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personal reasons prefer to have their babies delivered by TBAs. They later consult the nurses at these centers for immunization and postnatal care. Level B2 – Health Centres serving a number of sub-centres (in practice, any number from 5 to 20) and a population of about 50,000 – 100,000, staffed by a small number of paid workers, for example, a medical assistant, public health purse/midwife/environmental health worker/sanitation. The health center provides clinic, diagnostic and treatment services for patients referred by village health workers and sub-centres. It also supports village health workers to ensure that as much work as possible is done at the village level. Weija, Danfa, Madina, Obom, Prampram, Asutuare, Great Ningo and Sege, play such roles as level B2 health centers in the Ga, Dangme East and Dangme West Districts, respectively.

Level C – This district level serves a population of between 200,000 and 500,000 people. A district health team is responsible for planning, administration and support of health centers, health posts and village health workers throughout the district, and provide help to patients and deal with problems referred to them from the health centers. All the 3 districts forming the study area for this research do not have district hospitals so the health centers in the district capitals (Amasaman, Ada, and Dodowa) serve as district referral points. Services here are more advanced and treatments provided are on a higher level compared to that of the other health centers in the sub-districts. There is limited district mobile team throughout the districts because of the unavailability of vehicles for outreach work in all the districts.

The Battor Catholic Hospital in the Volta Region, serves as a very important referral point for the Dangme East and Dangme West districts. Other patients go to the Tema General Hospital, Korle Bu Teaching Hospital (for specialist care), 37 Military Hospital, Achimota

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and Police Hospitals and the polyclinics in Accra. The distribution of health centers and care as a whole is so urban-biased and uneven that some seriously sick people in level A just get straight to the hospital in the Volta Region or Accra Metropolitan area without passing through the levels B1 or B2 referral points. Some remote villages do not even have a village health worker or a closeby health center to visit before getting to level C. All the district medical officers confirmed the fact that most patients practised self-medication and used traditional medicine at home for sometime and only rushed to the health center or hospital when they realized the sickness has taken a deadly turn and death might occur if quick steps were not taken to consult a qualified medical practitioner.

Beyond the district level there is the national level (Ministry of Health). All the three rural districts in the Greater Accra Region need a hospital. Construction work has started in all the district capitals. It is a matter of time and money for district hospitals to operate in the Ga, Dangme East and Dangme west districts.

4.4.1 Immunization

This is the most successful component of the Primary Health Care programme. Infact, without this aspect of essential elements of health care at the village level, the whole of the PHC system would have ground to a halt (Mensah, 1997). TBAs who have had some training from the community health nurses and the level C as a whole are very important in encouraging mothers to immunize their new born babies. The stepping up of health education by the public health nurses in the various communities has helped mothers see the need to immunize their children against the six killer diseases especially measles and poliomyelitis.

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Table 4.2b shows the patronage of immunization of children by female respondents in the Ga, Dangme East and Dangme West Districts. Out of the 180 mothers interviewed, 135 of them, that is 75 per cent had their children immunized against measles, about 67.7 percent against whooping cough and 73.8 percent against tuberculosis.

Table 4.2b: Female respondents who immunized their children in the Ga, Dangme East and Dangme West Districts.

Disease prevented	Frequency	Percentage
1. Measles	135	75
2. Whooping Cough	122	67.7
3. Poliomyelitis	131	72.7
4. Tuberculosis	133	73.8
5. Tetanus	119	66.1
6. Diphtheria	127	70.5
7. None at all	46	25.5
Total number of mothers interviewed	180	

Source: Based on Field Data, 2001.

Table 4.3 : Percentage of female respondents in the Ada, Amasaman and Dodowa Health Centres who received antenatal care.

Antenatal Care	Frequency	Percentage
Antenatal Care at the health Centre	76	42.2
Antenatal Care at TBAs	57	31.6
Combination of the two	32	17.7
None at all	15	8.5
Total	180	100

Source: Based on Field Data, 2001.

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Table 4.4: Percentage of female respondents in the communities who received antenatal care

Antenatal Care	Frequency	Percentage
Antenatal Care at the health Centre	59	22.7
Antenatal Care at TBAs	119	45.8
Combination of the two	44	16.7
None at all	38	14.8
Total	260	100

Source: Based on Field Data, 2001.

Only 25.5 per cent of the women said their older children (between 25-45 years) were not immunized because they were not aware of such injections at that time. According to them, no nurses or health worker was available in their villages to educate them on these vaccines. Serious immunizations for most communities began in 1985 when the government was determined to hit the 80 per cent immunization coverage target set by the World Health Organization. Most children born before 1985 would automatically fall out of those who got immunized. About 47 per cent of the mothers had received the tetanus toxoid injection to protect them against attacks of tetanus and also to protect their new born babies. Only 42 per cent of them had taken their babies to the health centre for the yellow fever injection.

On the whole, the district capitals (Ada, Amasaman and Dodowa) with health centers, had more access to immunization programmes. Communities in these rural districts were visited by the community/public health workers once or twice a month specifically for immunization. Areas like Tuanikope, Tsopoli, Dontsere, Konkoni, Agigidaku, Lumuar, Kuluedor and other isolated communities were also visited every 2-4 weeks for antenatal, post-natal and other care for mothers. According to the nurses, where an official

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vehicle/boat is not available, the nurses sometimes hire a taxi or boat. Other times they re-schedule the programme for a later period. During the rainy seasons, areas like Yakubukope and Tuanikope are inaccessible. Mothers in very small communities join bigger communities for immunization and other programmes.

4.4.2 Maternal and child health/family planning

Maternal and child health/family planning is another essential element in the PHC programmes. In the Ga, Dangme East and Dangme West districts of the Greater Accra Region, the community/public health nurses visit the smaller communities every two weeks or once a month, when an official vehicle is available to help the women and see to their medical well-being. They also educate them on preventive measures.. The scope of the work in MCH/FP is that of antenatal and post natal care, immunization, food supplements and family planning service.

Table 4.3 shows the differences in the use of antenatal care by mothers in the study area. Altogether, 42.2 percent of the mothers interviewed at the various health institutions in the Ga, Dangme East and Dangme West districts attended antenatal care at a health institution (health Centre or Community Clinic) whilst 31.6 per cent attended antenatal care at the local TBAs place. Only 8.5 per cent of them did not attend any antenatal care at all.

On the other hand, 45.8 percent of the mothers interviewed at the various communities, outside the health institution, had attended antenatal care at the TBAs whilst only 22.7 percent of the mothers attended antenatal care in a health institution. A higher number than the situation of those in the health institution (14.8 per cent as against 8.5 per cent in the latter) had not attended any antenatal care at all. Women in the rural communities

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generally feel more at home with TBAs than with community health nurses, granted that most areas have only the TBAs regularly available. Yet areas like Pediatorkope and Agomeda which have community clinics still record many mothers going to the TBAs. Cultural and the educational backgrounds of the women influence their way of seeing and doing things.

According to the Directors of MCH/FP in Amasaman, Ada and Dodowa, various food items in the form of soya bean oil, dried skimmed milk, baby food, ground wheat and canned fish used to be given to mothers as food supplements until 1986 when the programme was stopped due to financial difficulties. The number of mothers patronizing the MCH/FP clinics dropped initially, but it has picked up once again. Nowadays the nurses prepare the soya bean powder and bag them in small bags to sell to the mothers for the infant's food. Breast feeding for 6 months is highly recommended. Family planning is a very essential component of MCH. Table 4.5 shows the level of knowledge and use of contraceptives in the Ga, Dangme East and Dangme West districts.

Table 4.5: The level of Knowledge and use of Contraceptives in the Ga, Dangme East and Dangme West districts

Attribute	Frequency Yes	%	Frequency No	%
Knowledge	249	95.8	11	4.2
Use of device	87	33.5	173	66.5

Source: Based on Field Data, 2001.

There is a high knowledge about contraceptives in the study area (95.8 per cent) but its use is very limited (33.5 per cent). Out of the 87 women who used a form of contraceptive, 41.4 percent of them used pills (Table 4.6).

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Table 4.6: Type of Contraceptive Used by women

Method	Frequency	Percentage
1. Pills	36	41.4
2. Foaming tablets	25	28.7
3. Injection	17	19.5
4. Intrauterine device	9	20.4
Total	87	100

Source: Based on Field Data, 2001.

4.4.3 Food supply and nutrition

Food is another important component of PHC. Food must be eaten in the right quantity and quality to promote good health. Unfortunately, because of economic difficulties, people do not have enough food to eat. Most respondents (83 per cent) said they consumed mostly carbohydrate foods and could do with more protein (meat, fish, eggs, groundnuts and beans). The favourite dishes eaten are "banku" and okro stew or pepper with fish (87 per cent); then "Konkonte" (cooked dried cassava powder) with groundnut soup (76 per cent), then "fufu" with light soup on palmnut/groundnut soup (69 per cent).

Ga kenkey, fried fish and hot pepper featured prominently in the Ga district (89 per cent), with the above mentioned dishes following. Ampesi (yam, cocoyam, apem etc); fried yam; rice and stew are all favourite dishes in these areas. All respondents said they would love to add more meat, fish, snails and crabs to the family meals, but financial difficulties prevented them from doing so. They also said they need to eat more fruits and vegetables in order to have a balanced diet with all vitamins and nutrients.

The health workers said, women, especially pregnant and lactating mothers and their children, suffer considerably from protein-energy malnutrition and its associated micro-

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nutrient deficiencies as a result of low and insufficient intake and pre-harvest hunger. Certain cultural practices combined with harsh living conditions have increased the incidence of women's malnutrition. Adult males are usually served the best portions of meals with the remains going to women and children. Some superstitious beliefs (taboos) prevent some pregnant women from eating eggs and meat even though these are highly nutritious and essential during pregnancy. Goitre, caused by iodine deficiency or insufficient cassava processing affects some of the women. Iron-deficiency, anaemia and vitamin A deficiency affect some of the women. Health education on this issue needs to be taken up seriously by the health providers in the study area.

4.4.4 Water and sanitation

Water is very important for all living beings. Most parts of the Ga, Dangme East and Dangme West districts lack good (pipe borne) drinking water. (See Chapter Five of this thesis). There are serious water shortages in all the districts during the dry season. Most of the water bodies (rivers, streams and wells) are polluted with rubbish and faeces.

Waterborne and water based diseases like malaria, diarrhoea, eye problems and skin diseases affect some of the people. (Refer to Tables 5.1 and 5.2) . Sanitation is also a big problem. Over 60% of respondents confessed practising open defecation since they did not have their own places of convenience. An outbreak of cholera in these rural areas would be very disastrous indeed. Flies and mosquitoes breed freely, bringing diseases to the people in the various communities. These components of PHC need urgent attention. No amount of health education given by the nurses would be of benefit to the people if they continue to have poor sanitation and hygiene practices.

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4.4.5 Prevention and control of locally endemic diseases

PHC has the main aim of preventing diseases rather than curing them. The doctors and nurses in the various districts are working hard at this through health education. There are serious difficulties because of illiteracy and ignorance on the point of the people. Most people practise self-medication and the use of herbs and consult medical personnel only when the disease gets out of hand. Most parts of the districts are inaccessible to the district capitals and the health centers because of bad roads, especially outside the Amasaman, Ada and Dodowa areas. Transport fares are high and people cannot afford to pay for prescribed drugs. Poverty is a big hindrance to utilization of health facilities. Altogether, 75 per cent of the 580 respondents at the communities and health facilities said the cost of drugs and treatment was too high. About 21 percent said it was reasonable; only 4 percent said the expenses were just enough. Table 4.7 gives the opinions of respondents in the various health institutions and communities in the study area.

Sister Mama, is 28 years old, a mother of two. She is a single mother and earns very little from her table-top petty trading activity. She told me, "The cost of drugs and treatment is high. I am not able to afford it. I just buy drugs from the chemical shop or from the itinerant drug vendors who come to the area. I have no other alternative".

Table 4.7 : Opinions of respondents, concerning the cost of drugs in the various communities and health institutions in the Ga, Dangme East and Dangme West districts

Responses	Frequency	Percentage
1. Cost of drugs and treatment is too high	435	75
2. Cost of drugs and treatment is reasonable	121	21
3. Cost of drugs and treatment is just enough	24	4
Total	580	100

Source: Field Survey, 2001.

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The most reported disease in all the districts is malaria (over 50 per cent of O.P.D. cases). This has been the case for decades. There is some education going on in the districts on the use of drug-impregnated mosquito nets, weeding of the environments, desilting gutters and drains in order to destroy the breeding places of the mosquitoes. These should be intensified. The government must subsidize the cost of these special mosquito nets since the poor rural dwellers said they cannot afford to buy these nets for between 80,000 – 100,000 cedis each.

Wofa Yaw, a 33 year old teacher who had brought his 7 year old son to the Dodowa Health Centre for treatment added that, "The cost of the drug-impregnated mosquito net is too expensive. Government must subsidize it so that we, the poor in society can also buy it for our use. Mosquitoes are "chewing" us too much".

Most of the health problems in these districts, like other districts in Ghana, are preventable (See Table 4.12). With effective health education and general cleaning of the environment as well as good sanitation, all these can be solved by a determined group of people. The role of the CDRs and other groups during the period of the Revolution (Late 1979 till about 1985) was very important indeed; especially clearing of gutters, streets and rubbish dumps. A fully motivated people can do all that work once again as a preventive measure against the attack of diseases in these rural parts of the Greater Accra Region.

4.4.6 Management of common illnesses and injuries

Immunization of infants and children has helped to reduce morbidity and mortality cases caused by measles, tuberculosis, poliomyelitis, whooping cough, diphtheria, tetanus and yellow fever. Urban dwellers have more access to health facilities than the rural dwellers.

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Under PHC, trained TBAs are able to manage common illnesses like headaches, rising temperature, cold, swellings on thighs or arms from injections, dressing of sores and first aid for injuries. There are few village workers and community dispensaries in the Ga, Dangme East and Dangme West districts. Most of the trained village workers have vacated their posts and are now peddling herbal and orthodox drugs in remote parts of the districts (Agyepong, 1992). The trained TBAs are of great importance to the various communities. They screen pregnant women and refer all complicated cases to the health centers.

Accidents occur from time to time on the busy high ways (Kumasi-Nsawam-Amasaman road; Dodowa-Accra; Ada-Aflao). Occupational hazards on farms, rivers, sea, in the store, at home, or the market also bring about accidents. These are preventable and can be avoided by one being extra careful. Care must be taken to eliminate this problem.

4.4.7 Provision of essential drugs

Drug are needed both for curative and preventive proposes. Under the PHC system, drugs play a very important role. The concept of an essential drug list as proposed by WHO, is that the list should comprise drugs corresponding to the needs of the majority of the people. Essential drug lists have been embraced by many countries, which have adapted the WHO model list to their needs (Fasehun, 1999). However, in many instances, "lack of availability of essential drugs forms a problem for the treatment of diseases that predominantly affect the developing world" (Pecoul et al, 1999).

The availability of drugs is one of the most visible symbols of quality care to consumers in the Ga, Dangme West and Dangme East Districts. The most commonly used drugs in

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the health centres included chloroquine, metronidazole, cotrimoxcide, procain benzyl penicillin injection, acetyl salicylic acid, oral rehydration salts, tetracycline eye ointment, benzyl benzoate, whitefield ointment, intravenous fluid, antacid and iron/folic acid (MOH, GAR 2002). The health workers confirmed the fact that shortages occurred more often than not. Drugs were sometimes apparently prescribed according to which drugs were available at the health centre or community clinic and not necessarily according to patient needs. Excessive prescription of drugs is sometimes a serious problem, especially the inappropriate use of antibiotics that can predispose to the development of drug – resistance by micro-organisms. The abuse of injections by itinerant injectionists in the districts causes concern about the transmission of infectious disease such as HIV, hepatitis and poliomyelitis. Pre-packaging of drugs in easily understandable doses is a possibility for improving both compliance and dispensing practices (Ansah et al. 2001).

Over 75% of the respondents found drugs to be too expensive, especially where they have to buy them on the open market (Refer to Table 4.7). Table 4:8 shows the respondents' opinion of improved services in the health sector. Opinions on drugs alone accounted for a total of 73.3 per cent of the respondent's ideas of improving the health care delivery system. About 44 percent wanted to have more drugs; 16.5 per cent wanted the

Table 4.8: Opinion of respondents on ways to improve health services

Attributes	Frequency	Percentage
1. More drugs	79	44
2. More equipments	33	18.3
3. Government subsidy needed for drugs	30	16.5
4. Abolish the cash-and- carry system	23	12.8
5. Build a district hospital	20	11.0
6. Reduce formalities and hospital procedures	18	10.0
7. All drugs must be available in the dispensary	17	9.4
8. Rude nurses must be sent home	15	8.3
9. Doctors must be available to see to patients	15	8.3
10. In-service training for all staff	14	7.7
11. More beds and wards are needed	14	7.7

Source: Field Survey. 2001.

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government to subsidize the cost of drugs; 12.8 per cent wanted the cash and carry system abolished and 9.4 per cent wanted all drugs to be available in the dispensary.

Low income earners are most times unable to provide balanced meals for themselves and their families. This leads to nutritional diseases, and makes them vulnerable to environmental infections (Mensah, 1997). There is also the psychological pain associated with poverty. This is a potential health hazard. Higher income earners are able to afford the high charges of private medical practitioners where they receive prompt attention when they, or a member of the family, reports sick. The low income group tends to direct attention to self-medication and "quack doctors", drug peddlers and dispensers. They tend to use more herbal medicine because it is relatively cheaper and sometimes even readily available in the rural areas. The higher income earners usually use herbal medicine as a last resort, where orthodox medicine somehow does not seem to heal their afflictions such as stroke, hypertension and other chronic sicknesses.

4.4.8 Community mobilization and awareness

The greatest potential asset of any people lies in the people's resourcefulness and their will to work for the improvement of their living conditions. To work well, people need to be healthy. This means that health services have a crucial part to play in the over-all development programme. (More of this analysis in chapters 7 and 8).

The whole community needs to get involved in building toilet facilities, schools, roads and work on community farms to make some revenue available for community projects. People's morale is generally low. Few people would volunteer to clean gutters and clear rubbish heaps. During the early years of the 1979 and 1981 revolutions, the CDRs and

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PDCs and various organizations would organize clean up campaigns almost every weekend to keep the environment neat. Today, all the gutters in the district capitals and towns are choked with rubbish. No one cares about what happens. Floods occur whenever it rains since the water is not able to flow freely in the communities. Table 4.9 focuses on respondents' attitude to clean up campaigns.

Table 4:9: Respondents' attitudes to clean up campaigns

Responses	Frequency	Percentage
1. Individual cleaning is more important than group cleaning	85	21.3
2. No interest in clean up campaign	166	41.5
3. Clean up campaigns are tedious for us	52	13.0
4. We are too hungry to clean up the community	97	24.2
Total	400	100

Source: Field Survey, 2001

About 41.5 per cent of the respondents acknowledged that sometime ago, everyone in the society, especially the young men helped clean up the community. About 24.2 per cent said they were too hungry to do such tedious work. Atta Nii, a 48 year old, father of 6, living at Amasaman said," I used to drive a commercial bus but the owner collected it. I have no job now and no money. I have not eaten the whole day. I have no energy to clean this dirty environment". Twenty one percent said they cleaned their individual homes and surroundings and so campaigns to clean the whole community was not really necessary. Thirteen per cent of the respondents said clean up campaigns were too tedious.

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Table 4: 10 – Respondents ideas on whose responsibility it is to clean the environment

Responses	Frequency	Percentage
1. The government must hire people to do so	196	49.0
2. The assemblymen must organize such campaigns	63	15.8
3. Young men must do that	80	20.0
4. Women must clean their own areas as usual	61	15.2
Total	400	100

Source: Based on Field Data, 2001.

Table 4.10 shows the respondents' ideas on whose responsibility it is to clean the environment. Majority of the respondents (49.0 percent) believe the government must hire people to clean the environment.

Awoyoe, a 34 year old mother of 3 in Ada insisted that, "Government collects money from us so he must see to it that people clean the environment for us. It is his job to keep the area clean".

4.5 LEVEL OF ACHIEVEMENTS OF THE PRIMARY HEALTH CARE SYSTEM

PHC has achieved a lot in the Ga, Dangme West and Dangme East districts. The most significant achievement is in the area of the reduction in morbidity and mortality rates in the thorny issue of the six childhood killer diseases. All mothers interviewed pointed this fact out. They said there has been a significant reduction in the number of children killed by measles, diarrhoea and jaundice.

Table 4.11 shows the major causes of infant mortality before serious immunization was started. Measles was a major killer followed by malaria. Pneumonia and anaemia were

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leading causes of death. Malnutrition tends to be a contributory factor underlying all these diseases. This is true of anaemia which is often nutritionally related or haemolytic as a result of repeated malarial attacks or sickle cell disease.

Comparing these figures with that of the summary of MOH report for the Ga, Dangme East and Dangme West districts under the top ten causes of death in children under 2 years old, and under 5 years old is helpful for the study. Infant and child mortality and morbidity has declined.

Table 4.11: The major causes of death of under 5 years old children before serious Immunization was started.

Causes of death	Percentage
Low birth weight (Prematurity)	21.8
Pneumonia	9.7
Measles	8.5
Diarrhoea	8.4
Anaemia	5.4
Malaria	5.3
Marasmus	3.3
Kwashiorkor	2.6
Tuberculosis	2.3
All other causes	31.7
Total	100

Source: Ministry of Health, Death Certificate from the Centre for Health Statistics (1979-1983), Greater Accra Region.

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Table 4.12: Major Causes of Child Mortality (1979-83) in the Greater Accra Region

Diseases	Ages 1-4 years (Percentage death)	Diseases killing children under 5 years	Percentage
Measles	21.3	Measles	16.6
Malaria	14.8	Pneumonia	13.1
Pneumonia	10.2	Low birth weight	10.2
Anaemia	9.5	Malaria	9.2
Diarrhoea	6.8	Anaemia	8.8
Kwashiorkor	5.6	Diarrhoea	8.6
Marasmus	3.7	Kwashiorkor	5.4
Tuberculosis	2.8	Marasmus	4.8
All other causes	25.3	All other causes	23.3
Total	100.0		100.0

Source: MOH, Death Certificate from the Center for Health Statistics (1979-1983), Accra

Table 4.13 Top Ten Causes of death in children (1-23 months)(1999).

Diseases	Percentages
1. Severe Anaemia	22.6
2. Cerebral Malaria	14.7
3. Septicaemia	11.7
4. Cardio-respiratory failure	6.6
5. Meningitis	5.9
6. Respiratory failure	5.3
7. Pneumonia	5.3
8. Protein Caloric deficiency	4.5
9. HIV	4.7
10. Neonatal jaundice	4.2
Total	100.0

Source: Ministry of Health, GAR, 2000.

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Table 4:14 - Top 10 Causes of Death in children (2-5 years) in the Greater Accra Region in 1999

Diseases	Percentage of death
1. Cerebral Malaria	24.6
2. Severe anaemia	22.9
3. Septicaemia	14.7
4. Renal failure	11.5
5. Enteritis dysentery	6.6
6. Pneumonia	4.9
7. Meningitis	4.9
8. HIV	3.3
9. Brain abscess	3.3
10.Measles	3.3
Total	100

Source: Ministry of Health, GAR, 2000.

Measles, one of the major killer of children according to the 1979-1983 data obtained from death certificates, is at a low bottom in 2000. Malaria, anaemia and pneumonia still occupy a high position before and after the introduction of EPI. This clearly shows that the component of immunization to a large extent has been successful. Problems of malnutrition, especially protein calorie malnutrition, kwashiorkor and marasmus are still significant. The same problems were observed in the New Juaben district study (Mensah, 1997).

Immunization has been successful because it is one of the best health interventions that show a success picture within a short period. Solving the other preventable and parasitic diseases is more complex and difficult. Poverty is a big issue. As already stated, 67.1 per cent of all the respondents said they could not afford enough protein in their diet. Even the fisher folks confessed selling most of their catches because they needed money for their other needs. More carbohydrates are therefore consumed compared to the other food

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Kwashiorkor. Micro-nutrient deficiencies are another problem in the study area. Vitamin A and iodine deficiencies are quite widespread.

Fertility rates have reduced from 6.71 in 1980 to 6.4 in 1988 and 6.1 in 1992. There are wide regional variations in this, from a level of 4.64 in Accra to the relatively high levels of 6.80 and 6.86 in the rural parts of the Greater Accra region and (GSS, 1998). The risks involved in high fertility affect not only the mother but also the health of her child. It implies short birth intervals and failure of repletion of nutrients, often leading to the maternal depletion syndome which contributes to early aging and death. Children are affected by low birth weight and increased risks of death.

Water and sanitation programmes have also not been very successful in the Ga, Dangme East and Dangme West districts (the rural parts) of the Greater Accra Region. About 70-80% of the people continue to drink untreated river and stream water. Some of these sources of water are polluted with faeces and chemicals. The World Vision International and other NGOs are working hard at providing some areas with boreholes. Sanitation is poor and of critical concern. Disposal of excreta or human waste, garbage disposal and liquid household waste and storm water disposal are a big problem. Available data indicate that only 50 per cent of the urban and 15 percent of the rural population have adequate sanitation installations (Amonoo-Lartson, 1991). This yields a national figure of 27 per cent, a situation which is very alarming.

Reports of Ghana Living Standards survey (GSS,1999) show a sharp contrast between rural and urban areas in terms of availability of human excreta disposal facilities.. For example Table 4:15, reveals that urban areas rely on a range of toilet facilities including

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flush toilets while rural areas primarily depend upon pit latrines and other types of toilets (which are not defined in the GLSS). On a country wide basis, the pit latrine is the most common type of facility, whilst the "open defecation" is the most widespread. It actually forms the bulk of the "other types" of toilets.

Table 4:15. Distribution of households by locality and type of toilet used (percentage)

Types of toilet	Accra	Other urban	Rural	Country
Flush toilet	16.2	12.6	0.8	5.6
Pit latrine	27.3	37.4	64.8	53.4
Pan/bucket	19.6	34.0	5.7	14.7
Other (1)	36,9	16.0	28.7	26.2
All sample size	100	100	100	100
Total	352	827	1956	3135

(1) Other includes anyone who said he did not have a toilet facility or hand one different from those listed above.

Source: GLSS, 2002

Access to human excreta disposal facilities is related to household income. There is a strong correlation between households with potable water supply and those with good sanitation facilities especially excreta disposal system, the best of which depend on the availability of potable water supply. The poorer social groups face serious sanitation problems with children playing around refuse dumps and pits of open faeces. Black polythene bags filled with faeces are dumped in gutters, streets, bushes uncompleted houses and rubbish dumps. These can be observed in some of the settlements. Amasaman had some serious examples.

The preventive component of PHC includes health education by health providers. There is room for improvement in this direction. Better methods of reaching out to the populace

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must be adopted. Locally endemic diseases like malaria, buruli ulcer, and skin diseases are still spreading in the various districts. Common ailments like headache, malaria and temperature are being handled quite successfully by the retrained TBAs, community nurses and other health providers. Some essential drugs are also being made available. A good example is the free supply of drugs to all leprous and tuberculosis patients. Community mobilization and awareness also needs to be encouraged. Some people are indifferent to what is happening around them. The zeal to work hard in terms of communal work and participation in community development needs to be rekindled once again like the days of the Revolution when volunteers from the Committee for the Defence of the Revolution (CDRs) and People's Defence Committee (PDCs) were all ready and willing to work real hard.

Immunization is the most successful of child survival interventions. Immunization services are effective in preventing specific diseases which might otherwise precipitate malnutrition, blindness, or death (Pillsbury, 1990). These services are relatively inexpensive and are effective entry points for other PHC activities.

The relatively high coverage of BCG in the Dangme West and Dangme East Districts (82%, 90%, 113%) then (75.3%, 77.3%) in the Ga District, especially in big towns like Ada, Dodowa, Amasaman, Prampram and Old Ningo, means that majority of the children are saved from attacks of tuberculosis. However, there are pockets of low coverage in isolated places such as the Osudoku sub-district of the Dangme West District and the islands in the Volta River in the Dangme East districts where low coverage such as 38% are recorded for BCG, and 24% for measles.

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Coverage for DPT3, OPV3, yellow fever are quite high for the districts (94%, 88%, 83% etc) but the isolated settlements record low coverage once again (20%, 15%). Focusing on just district totals can therefore be very deceptive (87%, 83%, 71%, 61%). Tables 4.16, 4.17 and 4.18 help us observe the details of immunization coverages. On the whole, the records in the health centers and community clinics show reduction in morbidity of infants and children from whooping cough, measles, yellow fever, diphtheria and poliomyelitis.

Records from the OPD however show morbidity caused by malaria, diarrhoea, upper respiratory infection, accidents, skin disease, acute eye infection, rheumatism, ear infection, anaemia and Intestinal worms. (Refer to Table 5.2).

Table 4.16: Health Services Coverage by Sub-district (based on actual population) Communicable Diseases Control Jan – Dec. 2000(Dangme West District).

Antigen	Dodowa	Prampram	Old Ningo	Osudoku	District Total
BCG	82%	90%	113%	38%	87%
DPT3	86%	88%	94%	39%	83%
OPV3	89%	88%	91%	39%	81%
Measles	74%	83%	83%	24%	71%
Yellow Fever	53%	79%	75%	20%	61%
TT2	45%	81%	40%	15%	47%

Source: DHMT, MOH, DODOWA, 2001

Table 4.17: Immunization Coverage in the Dangme West District.

Year	BCG	Measles	OPV3	DPT3	Yellow fever	TT2
1996	89%	84%	80%	80%	34%	9%
1997	79%	72%	72%	64%	51%	31%
1998	82%	73%	74%	75%	49%	47%
1999	75%	62%	73%	73%	54%	39%
2000	87%	71%	81%	83%	61%	47%

Source: DHMT, MOH, DODOWA, 2001.

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Table 4.18 shows the trend in immunization coverage in the Ga District, 1998-2000. Children under five years have many challenges as far as health is concerned. Health problems facing this group are communicable, infectious and preventable diseases, and diseases due to poor environmental sanitation, malnutrition, ignorance and poverty (Ababio, 1986 and UNICEF, 2003).

Immunization is only one component of PHC. It has helped reduce the morbidity rate of children, especially in the area of measles, tuberculosis and the other 4 killer disease but the other components of PHC have to be in place for the health of children in the rural areas to get better and stronger. Village health workers are needed to help the trained TBAs, as well as Public/Community Health nurses to see to the health needs of children at the grassroots level.

Dr. Kwegyir Aggrey's wise saying, "Educate a man and you educate an individual; educate a woman and you educate a nation", is so apt in health education. Serious PHC activities such as health education of women especially, concerning issues on food supply and nutrition, water and sanitation, prevention and control of locally endemic diseases, management of common illnesses and injuries, provision of essential drugs and community mobilization and awareness will go a long way to help improve the health of children in the study area. EPI is a strong preventive component of PHC and has helped reduce severe attacks of measles, poliomyelitis, whooping cough and tuberculosis. Mothers see and comment on the difference in growth and development between immunized, exclusively breastfed children and non-immunized, formulae, non-breastfed children.

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Table 4:18: Immunization coverage by antigen, GA District, 1998-199-2000

Antigen	% COVERAGE 1998 (Pop 239,370	% COVERAGE 1999 (Pop 246,552)	%COVERAGE 1998 523,687 (Projected)	% COVERAGE 1999-Pop 539,883 Projected)	TARGET Set for 2000	Number of Children Immunized in 2000	% COVERAGE 2000 (Pop 556,581)	New Target for 2001
BCG	75.3	77.3	32.4	35.3	85	10241	46.0	50
DPT3	98.0	90.1	39.5	41.1	85	11032	48.6	50
OPV3	90.4	91.4	39.6	41.1	85	10717	49.5	50
MEALSES	81.1	84.4	35.9	35.5	85	10448	47.0	50
YF	61.0	86.6	18.3	18.3	85	10658	48.0	50
TT2 BY (EXPREGNCIES)	32.1	28.4	8.8	8.8	85	4837	21.7	50

Source: DHMT, AMASAMAN, 2000).

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Pregnancy and child birth are a natural, physiological phenomenon, but they are often fraught with problems leading to serious illness and even death. There are great demands on the health of women. This is especially so in terms of severe manual work on farms and at home. Inadequate nutrition has a predisposing factor which adds to factors such as inadequate health facilities (Amonoo-Lartson, 1991).

Factors that limit access to health care facilities include the lack of roads and bad roads which are impassable during raining periods and inability to afford the costs involved in seeking health care. Most of the inhabitants in the Ga, Dangme West and Dangme East Districts of the Greater Accra region experience these problems, especially those in the isolated settlements like Fulanikope, Tuanikope, Asutsuare, Atikpe, Dogoban, Konkon, Adzen Kotoku, Weija, Oduman, Lutenya, Osudoku, Okwebieku and Lumuor. The people also experience cultural attitudes, beliefs and practices which propound the desperate situation.

The Maternal and Child Health Clinics of the PHC, together with EPI in these rural parts of the GAR have helped to reduce the number of sick women in the study area. Some preventive care is taking place in the various communities through health education, better food supply and nutritional knowledge. The trained TBAs are especially helpful in some villages where locally recruited health workers are not available. Instead of attributing all diseases and difficulties to witches, the women are fast learning about the importance of preventing rather than curing preventable diseases such as measles, malaria, tuberculosis and tetanus.

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Table 4.5 and Table 4.6 show the level of knowledge and use of contraceptives in the study area. There is a high knowledge about contraceptives (95.5%). Out of the 87 women who used a form of contraceptive, 39.5% of them used pills. This shows a reduction in the large number of women in the child bearing age who are in constant danger of becoming ill or losing their lives in the course of performing their physiological function of pregnancy and child bearing. Spacing of pregnancies preserved some of the women's limited energies that would have been used up in pregnancies.

Indepth interviews helped the researcher obtain detailed information on sensitive issues. For example concerning the spacing of children, Daavi Ama of Pediatorkope said, "Those days of having 10-13 children by our grandmothers are gone. Now we have doctors and nurses to help us give medicine to our children to prevent them from dying young from measles and other diseases so having 3-4 children is okay. Using pills help us limit our pregnancies and also live longer".

Table 4.19: Main source of information on HIV/AIDS in the three districts.

Main source of Information	Frequency	Percentage
Friends/Relatives	219	37.8
Health Worker	125	21.6
Radio	80	13.8
Television	54	9.3
Community meeting	52	8.9
Newspaper	50	8.6
Total	580	100

Source: Field Survey, 2001.

The HIV/AIDS is a dreadful disease. All the respondents had interesting ideas about it. Knowledge of HIV/AIDs is widespread (97 per cent of the respondents knew about it).

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The main source of information on HIV/AIDs is that of friends and relatives 37.5 per cent), followed by health worker (21.6 per cent) and radio (13.8 per cent), TV (9.3 per cent), community meetings (8.9 per cent) and finally newspaper (8.6 per cent). Information through one to one contact tends to spread faster than through newspapers, TV and the radio. Health education is important in primary health care.

Children are the future leaders of tomorrow. The death of a child brings great pain and sorrow to the family. The EPI operating under PHC has helped in a very significant way in reducing the death of children in the rural parts of GAR. In the past, more than a third of deaths among children under five was due to preventable and infective causes like malaria, measles, diarrhoeal and respiratory problem (MOH, 1979). One out of ten were due to nutrition-related causes with a little less than one out of ten due to low birth weight. Children no longer die from measles, tuberculosis and the other four childhood killer diseases (Refer to Tables 4:12).

Great emphasis placed by the District Health Management teams on having 80% of children immunized against the six killer diseases and the control of diarrhoeal diseases through the use of oral rehydration therapy has reduced deaths by measles, tuberculosis, diphtheria, whooping cough, as well as diarrhoea among the children in the districts. Malaria stands out as the main cause of morbidity and death (Refer to Tables 5.1 and 5.2). TBAs (the trained ones, especially) and the nurses are helping in this aspect of preventive health care. According to the health workers, all pregnant women with potential complications or instrumental delivery and history of still births who consult the TBAs and nurses are referred to the Level B Health Centres and the available hospitals outside the study area.

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On the whole, there has been a reduction in the morbidity situation among others, as a result of their contact with the public health nurses, through health education concerning nutrition, child-rearing, immunization and fertility problems and family planning. De-worming, use of simple medicines and food supplements, as well as contraceptives have helped reduce morbidity levels of women in the study area.

The problem of malnutrition has also reduced as a result of the serious health education sessions the community health nurses kept having with the mothers. They were encouraged to use local food such as anchovies, beans, ground nuts and other nutrition food items to prepare food for the children. The incidence of kwashiorkor and marasmus has also reduced because of the good health education taking place in various communities.

Mortality risk factors are attributes or conditions that increase the probability of death. Those involved with infant and child mortality include the age of the mother, the socio-economic status of the household and environmental conditions. The minimum mortality rates pertain to mothers in the 20-24 and 25-29 age groups. Rates at maternal age below 20 are generally higher as are rates at maternal ages 35 and over, implying that children born to very young mothers (under 20) and very old mothers (over 35) have increased risk of death during infancy and childhood.

62% of the mothers in this study were between the ages of 16-35 years. The weight of the babies at birth is increasing thus improving their chances of survival. Women with no formal educational experience generally have higher risk of infant and child mortality compared to those with some formal education. Between the ages of one and four, the

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probability of dying is far less for children of mothers who have more than middle school education. Children of mothers who have at least primary school education are 40% less likely to die between ages one and five than those of mothers with no education. 67 per cent of the women interviewed at the health institutions in this study area had no formal education. Only 33 per cent had primary/middle up to the tertiary level (Field survey, 2001). Education brings enlightenment and promotes the good health of men, women and children.

Prevention is always better than cure. The re-activation of EPI in 1985 helped the preventive component of health care to push forward in a positive way. Both health care users and providers realized that it is far cheaper and easier to prevent diseases such as measles, tuberculosis, poliomyelitis, blindness and deafness, than to cure them after they had taken root in the life of people.

No case of diphtheria has been recorded in the three districts for years (MOH, 2001). The health providers, especially the outreach teams and MCH/FP public health nurses, are seriously educating mothers concerning food nutrition. Mothers who cannot afford expensive sources of protein such as meat, fish, eggs and milk are being encouraged to use cheaper but nutritious local substitutes such as anchovies, beans, agusi, groundnuts, and soya bean powder to prepare food for their children (Mensah, 1997). The problem of malnutrition has therefore reduced considerably. Maternal and Child Health (MCH) services in the Ga, Dangme East and Dangme West districts have helped in spreading health education to many mothers. Their services include antenatal and delivery care (maternity services). In the Dangme West district, between 73% 95% of pregnant women attended ante-natal care. However, only 35%-48% of them, between years 1996-

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2000 actually delivered in the Ada Health centre and the other health centers and community clinics available. Majority of rural women (65%-52%) continue to deliver at TBAs or at home. Table 4.20 also shows that in 1999 only 7% - 13% of the pregnant women actually accepted and practised family planning.

MCH services include the growth monitoring of babies, nutrition, health education, food supplementation immunization and diarrhoeal disease control. Family planning, management of infertility and improvement of reproductive health and school health services are all being seen to by the health care providers.

Table 4.20: Trends in some MCH/FP indices over time Jan-Dec. 2000

Year	Antenatal Coverage	% Delivery Coverage	% Family Planning Acceptor Rate
1996	95%	40%	13%
1997	82%	36%	12%
1998	73.0%	35%	10%
1999	80%	39%	7%
2000 (Actual)	87%	48%	11%
2000 (Projected)	74%	41%	11%

Source: DHMT, MOH, DODOWA, 2001.

There is a good coverage for the district capitals (Amasaman, Ada and Dodowa) compared to the neglected rural communities in the Osudoku, Yakubukope and other isolated settlements. The nurses try to reach these far away places from time to time (quarterly, annually), but for most times they simply focus on the accessible settlements with good roads and amenities (Field survey,2001).

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Trained TBAs at the community levels and other traditional healers serve as the first contact of some form of PHC and treatment on the Level A (that is the community level). Some of them have also been very helpful in spreading the good news of immunization, family planning, food and nutrition as well as hygiene practices such as washing of hands before eating, and after visiting the toilet. They assist with first aid in times of emergencies and give treatment of simple ailments such as diarrhoea and convulsions.

The good health education going on in the various communities have thus helped lower the incidence of kwashiorkor and marasmus in children. During our focus group discussions at the Amasaman, Dodowa and Ada Health centers, most of the women (10 from each session) said they attended antenatal and received the tetanus toxoid injection, and also immunized their children against the 6 killer diseases. About 7-8 women in each group testified of breast feeding their babies for 1-2 years. Only 4 out of the total of 30 women stopped exclusive breast feeding at 3-4 months because they had to report back to work after exhausting their maternity leaves.

According to a respondent, Auntie Jane (Amasaman Health Centre) "Exclusive breast feeding builds up my baby so much. He is very strong and healthy. He never falls sick and he is so alert. I experience a great bond with him. He is so content sucking my breast and we look into each other's eyes with great love, peace and joy. It is also cheap!!! SMA, Lactogen and other formulae are too expensive and not even good for babies. I highly recommend exclusive breastfeeding". Only 5 women out of 30 gave artificial baby food formulae to their babies. They said the nurses had instructed them not to give such foods to the babies because of unhygienic practices in keeping the bottles, which

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leads to diarrhoea and other complications. They testified that exclusive breast feeding made the babies more healthy, strong and happy. Most of them used soya bean powder, groundnut and fish powder to enrich their children's food, especially weaning foods.

Below are a summary of findings of some of the issues examined in discussions with 10 women in 3 separate MCH/FP clinics at Ada, Amasaman and Dodowa.

1. All the women attended antenatal clinic
2. All of them received the tetanus toxoid injection
3. All the women immunized their children fully against the 6 killer diseases
4. Almost all the women breast fed their babies for 1-2 years.
5. Only 4 women stopped exclusive breastfeeding after 3-4 months because they had to report back to work when their maternity leave had been exhausted.
6. Only 5 women gave artificial baby food formulae to their babies.
7. The women testified to the better growth and development of the children they exclusively breastfed for 6 months, before introducing them to porridge, "mpotompoto" and other foods.
8. Their knowledge of PHC and EPI was quite high.
    a) On the method of preventing diarrhoea, 10 of the 30 women said giving liquid food like "koko" maize or "rice water", (porridge) was a solution to diarrhoea
    b) Six women said washing of hands before feeding the child prevented diarrhoea
    c) Six more women added that keeping a clean environment also prevented diarrhoea

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d) Four women said washing of hands after toilet was also very important

e) They all agreed that the safe disposal of human solid waste helped prevent diarrhoea.

f) Three women said exclusive breast feeding, without water for the first four months would prevent the baby from experiencing diarrhoea.

g) Only one women (at Ada) said she had no idea at all about preventing diarrhoea in children.

The other women in the group rebuked her saying, "Maame Nurse has been teaching us on these important issues. You don't attend these sessions so you can never know anything".

The women are very much aware of the benefits of health education programmes. The MCH/FP staff, especially the community health nurses are doing a very good job. They work hard under very difficult and cramped up conditions. Yet their morale and spirit is quite high. They are rendering a very valuable service to the rural people. They cheerfully go about their duties and interact nicely with the mothers and their babies. The patients/mothers on their part were also very pleasant and willing to share their ideas and problems with the researcher and her assistants. The health education and counselling opportunities the PHC offers through its staff has helped to improve maternal and child care in the rural districts, especially about the dwellers in the district capitals and their surrounding settlements. Special mention is made of exclusive breastfeeding among many mothers in the rural districts.

Research on breast milk has shown that it is the best food for an infant (Amonoo-Lartson, 1991). Not only are the nutrients in the right proportions but it actually alters in

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composition to meet the child's changing nutritional needs. The infant needs nothing but breastmilk alone for the first six months of his life, unless medically indicated otherwise (Brakohiapa, 2001). During antenatal and post natal sessions at the health institutions, the nurses kept impressing it on the mothers the fact that anti-infective properties of breast milk help protect the child against diseases and also maximizes a child's physical and intellectual potential (Brakohiapa, 2001).

Mothers are made aware of the fact that children breastfed for longer periods show higher scores on mental ability tests than those not breastfed. Some of the mothers told the researcher that babies who do not receive breast milk were more likely to die from diarrhoea because of the use of unsterilized bottles, poor preparation and use of contaminated water. Only 9 per cent of the 180 mothers interviewed exclusively breastfed their babies for 0-3 months. About 27 per cent of the mothers exclusively breastfed their babies for 4 -6 months. About 64 percent of the mothers were not able to exclusively breast feed the babies for six months.

Mothers are being encouraged to eat nutritious food, especially palm nut soup with beans, green leaves, fish added to help them obtain good health and also breast feed their babies well. Some women were confused because some years ago the nurses said it was alright to give the baby boiled then cooled drinking water. Now they said the nurses instructed that no water at all was to be given to the babies for six months.

Maame Mansa (Amasaman Health Centre) lamented, "My baby gets very thirsty and cries for water. I can't just sit and do nothing about it. I give him the boiled then cooled water.

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I don't want him to die of thirst. Babies are miniature adults. They must also drink water like we do".

The Senior Nursing Officer at the Amasaman Health Centre advised the pregnant women at antenatal session to give colostrum (the yellow liquid which is the first to come out of the mother's breast after birth) to the babies because it was very important. She added that more suckling makes more milk, and that early supplements depress the production of milk. Breastfeeding also reduces the risk of premenopausal breast cancer by half and also reduces ovarian cancer by 25 per cent. Exclusive breast feeding also helps with the spacing of babies. The women in the rural districts of the Greater Accra Region, like all others in Ghana, have always had some knowledge of birth spacing and control, both traditional and modern ways. Out of 249 women interviewed 95.8% of said they had some knowledge about birth control spacing methods, but only 33.5% of them actually used a form of contraceptive.

Table 4.5 and Table 4.6 show that out of 87 women (33.5%) who used contraceptives, 41.4% used pills; 28.7% used foaming tablets; 19.5% used injection; whilst 20.4% used intrauterine device. None of them had been sterilized. Others had periodic abstinence. Most men said they used condoms from time to time, and that some of their wives used pills, traditional methods, periodic abstinence, foaming tablets and sterilization to prevent pregnancy from occurring.

With the high cost of living, couples want only 2-4 children. As the nurses continue with their talks and discussions on family planning, more women will also opt for contraceptives to help reduce the number of children born, and also help space them for

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better health and care of both mothers and children. "When you educate a man, (a boy) you educate an individual, but when you educate a woman (a girl), you educate a nation", by Dr. Kwegyir Aggrey. This is a great adage, which is really important in the lives of all mothers, women in Ghana. There is an increasing incidence of female-headed households in both urban and rural areas in Ghana (Ardayfio-Schandorf, 1994). For many years, and especially during the prevailing economic crisis, many homes are maintained by women. As more parents get educated, they also gain knowledge that help them look at the world more critically. Education helps women to obtain paid work and to acquire self-confidence, additional skills and some measure of autonomy. Women with high educational levels are expected to have lower fertility rates (Agyei-Mensah, 1997).

If more women in the study area get formal education the emphasis on traditionally getting only male children formally educated at the expense of the girl child, would reduce more and more. The economic independence being enjoyed, especially amongst the traders, teachers, seamstresses, hairdressers, 'chopbar' keepers and other self-employed women in the study area has encouraged them to send their girls to school so they get good education.

Auntie Leticia (Dodowa), a trader in plastic ware told the researcher, "My parents were farmers and did not send my sister and I to school. Our 4 brothers all went to school, even to the secondary level. Fortunately, our aunt took us to her place where she trained us to trade in beads and other wares. She also sent us to Sunday school so we learnt how to read and write in the Dangme language. My sister and I have sent all our children (5) to school so that both boys and girls can study hard and be doctors, accountants and engineers in future to earn more money and to be able to take care of us in our old age".

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The use of the mass media, especially radio, television has gone a long way to help parents grasp the importance of educating the girl child as well as the boy child. Indirectly, the counselling from health workers in the various communities has also helped raise the consciousness and the importance of formal education. Knowledge is power. The more educated a people become, the more receptive they become to innovations and better way of living and taking excellent care of their health and families.

4.6 BOTTLENECKS IN THE IMPLEMENTATION OF PRIMARY HEALTH CARE

The whole idea of PHC is to make basic health care available to rural areas and urban areas in their local communities. Disadvantaged members of the general population are still facing health problems, especially diseases which are preventable. The three District Directors of Health Services (heads of the DHMT) were asked specifically to list the persistent problems affecting the full implementation of PHC in their various districts. The following is a summary of what they mentioned. According to Dr. Ernestina Mensah-Quainoo (Amasaman); Dr. Irene Agyepong (DHMT, Dodowa) and Dr. Yao Yarbani (DHMT, Ada), persistent problems affecting the full implementation of PHC include the following:

1. High illiteracy among the people thus preventing them from following the instructions given by the health providers.
2. Inadequate transport and Communication for outreach programmes.
3. Insufficient funding.
4. Poor organization and delivery at peripheral levels.
5. Lack of logistical support.
6. Staff unavailability.
7. Improper referrals.

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8. Scarcity of necessary equipments and supplies
9. Paucity of data to serve as the basis for further planning.

The big problem is that, even though the official policy of PHC is rural based, health coverage still remains below 50 per cent with only 10 per cent of smaller communities benefiting from the services of trained health workers. The introduction of PHC resulted in extensive training of voluntary community based health workers in the 1980s. Supervision and close monitoring could not be maintained, due to the deteriorating situations of the health delivery structures. The various communities could not motivate these voluntary workers monetary-wise. This resulted in the collapse of the community-based system. A good portion of drug peddlers (itinerant drug vendors) are trained village health workers, some even now operating as injectionists in remote parts of the rural districts of the Greater Accra Region.

The Ministry of Health (MOH) emphasized the decentralized delivery of health care services through the strengthening of the district health system and the basic unit of health care delivery The District Health Management Teams in the Ga, Dangme East and Dangme West districts are working on strategies to help cover all the isolated portions of the districts with community health clinics. The PHC system in the rural parts of the Greater Accra Region has had some success, especially in the area of immunizing children against the six child killer diseases. Some components forming the essential elements of PHC have ran into serious trouble, especially the collapse of the community-based system. Curative practices with limited preventative services continue to take place under the health care delivery system. Trained Traditional Birth Attendants in level A and outreach teams from the health centers (Level B) are helping with work in these remote areas.

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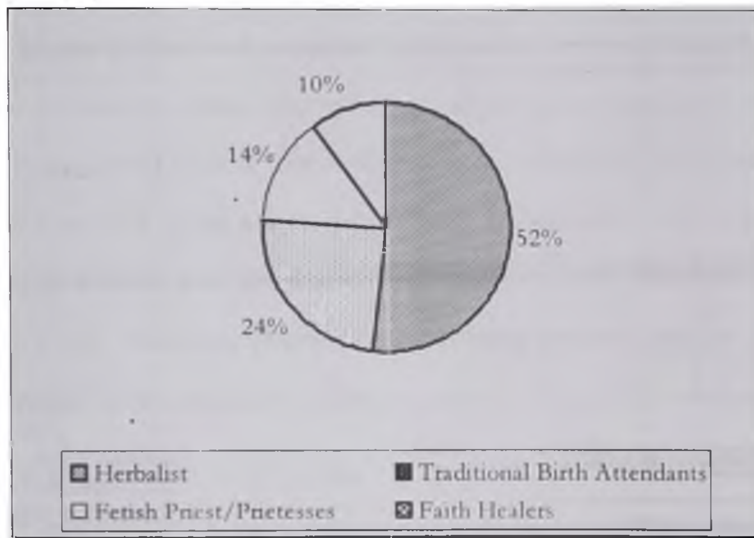
Health information and services, especially the Expanded Programme on Immunization reach the rural poor and not just the socially and economically powerful in urban areas only (Amonoo-Lartson, 1984). EPI is a very important component of PHC (Mensah, 1997).

PHC in the Ga, Dangme East and Dangme West Districts has upgraded the quality of EPI and MCH. It has helped reduce the occurrence of diarrhoeal diseases using Oral Rehydration Therapy (ORT) and other locally prepared liquids and foods. Maternal and child care, family planning and nutrition have all been pushed to a higher level than before (Agyepong, 1992).

Fig. 4.4: The Role of Traditional Healers in the Ga, Dangme West and Dangme East Districts



Source: Field Data, 2001

Traditional healers are available in all parts of the districts, especially the remote parts the trained PHC worker is unwilling to go. They comprise herbalists, fetish priests/priestesses, faith healers, circumcisionists, bone setters and TBAs. Fig 4.4 shows the respondents'

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ideas on the role of traditional healers in the study area. Out of 580 respondents' responses, herbalists were seen to play the greatest role of 52 per cent of all traditional medicine, followed 24 per cent by TBAs, 14 per cent by fetish priest/priestesses. Faith healers were placed at 10 per cent. In most of the villages and small towns, traditional healers are the only first level of contact for the population. Most mothers are illiterate and tend to patronize traditional healers, if modern services are not available. They use them as first aid before getting to the nearby health center or distant hospital, when the health problem gets almost out of hand. Delayed patients tend to die enroute to the health facility, or on admission. Use of traditional health service also depends on the type of illness and the perceived effectiveness of the service (Twumasi, 1981; Acheampong) 1992.

The main problems with traditional healing and the services of drug peddlers and injection in its operating in these rural districts are the unhygienic methods in the preparation and preservation of herbs as well as the absence of standardized procedures. There is also a problem with dosage and storage. The big herbal centers with factories in Accra are trying to reduce these above mentioned inadequacies in the production of herbal medicine in bottles and tablets (capsules). Traditional medicine must be integrated into the primary health care system; it cannot be ignored. The cost for such an attitude is too high.

4.7 Conclusion

Primary Health Care has eight component parts – food supply and nutrition, water and sanitation, mother and child health, immunization prevention and control of local endemic diseases, management of common illnesses and injuries, provision of essential drugs and community mobilization and awareness. All these components need to be strengthened in

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all the three districts forming the study area. The back-up referral service for training of PHC workers, especially the TBAs, is of prime importance to the smooth running of this grass-root health system. Chapter five focuses on the health status of the people.

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CHAPTER FIVE: HEALTH STATUS OF THE PEOPLE

5.1 INTRODUCTION

Being in good health is a fundamental human right and it is one of the basic requirements for a socially and economically productive life. The health status of people in the study area is discussed in this chapter. Preventable diseases such as malaria, diarrhoea and skin rashes are ranked high on the list of health challenges confronting the people in the study area.

5.2 HOUSEHOLD DISEASE PATTERNS

The outpatient registration in the Dangme East District(Table 5.1) clearly reveals the health status of the people in the study area.

Table 5.1: Top ten diseases seen at OPD, Dangme East District

DISEASES	1997		1998		1999	
	# OF CASES	% TOTAL	# OF CASES	% TOTAL	# OF CASES	% TOTAL
Malaria	7237	58.3	8256	57.0	8815	56.7
Diarrhoea	1259	10.1	1789	12.4	1860	12.0
Upper Respiratory Infection	1420	11.4	1606	11.1	1382	8.9
Accident	1232	9.9	1413	9.8	1632	10.5
Skin Diseases	638	5.1	723	5.0	886	5.7
Acute Eye Inf.	117	0.9	185	1.3	272	1.7
Rheumatism	118	1.0	136	0.9	196	1.3
Hypertension	153	1.2	187	1.3	181	1.2
Ear Infection	104	0.8	115	0.8	143	0.9
Anaemia	129	1.0	71	0.5	176	1.1
Total	12407	100 0	14481	100.0	15543	100.0

Source: DHMT/DCU, MOH, ADA, 2000

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Table 5.2: Top ten diseases recorded at OPD in the Ga, Dangme East and Dangme West Districts, 1999

Diseases	Ga District	Dangme-East District	Dangme-West District
Malaria	1	1	1
Skin Diseases/Ulcers	2	5	4
Diarrhoea	3	2	3
Acute Eye Infection	4	6	10
Upper Respiratory Infection	5	3	2
Accidents/burns	6	4	5
Rheumatism	7	7	6
Gastritis/Ear Infection	8	9	8
Anaemia	9	10	9
Hypertension/Intestinal Worms	10	8	7

Source: MOH, GAR, ACCRA, 2000

Table 5.2 shows the top ten diseases seen at OPD, in the Ga, Dangme West and Dangme East Districts. The population of the districts are heavily affected by malaria, which is still the leading cause of mortality. The chief sources of the diseases are inadequate potable water, environmental pollution, lack of personal hygiene and overcrowding. Poor access roads and careless driving are the main causes of road motor accidents.

The pattern of reported cases in the districts shows some similarities and differences. All the districts recorded malaria as the number one reported disease. Skin diseases (including Buruli Ulcer) feature as the second reported disease in the Ga District, whilst the OPD in Dangme East District has it as fifth on its list, with Dangme West District having it as fourth. Diarrhoea has a high third and second position respectively in all three rural districts. Acute eye infection, upper respiratory diseases and all other preventable/chronic diseases follow in that order.

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The treatment of Buruli Ulcer, especially in the Ga District, is very expensive so patients cannot afford it. It affects residents of rural areas where poverty is endemic. The MOH is finding it difficult to continue with intervention measures in view of the high expenses involved. The Amasaman Health Centre that deals with the patients complain about the financial burden the treatment has brought to bear upon them. The National Health Insurance policy will help patients to obtain some help in this area. There is a dearth of data on the rural districts' mortality situation.

The nutritional status needs some improvement. Major micronutrient deficient disorders in Ghana are related to iodine, iron and vitamin A deficiencies. Infant mortality rate, child mortality rates as well as maternal mortality rates for these rural districts are not available. Quoting the Greater Accra Region rates are a big deception, since the situation in the rural sectors are totally different (GSS, 1999).

Curative health service and certain aspects of preventive health care have not been able to reach the goal of Health for all by the year 2000. The next target set is for 2020. The health institutions and their distribution pattern, the personnel and equipment situation and the budgetary allocation are inadequate. The administration of the MOH, Greater Accra Region has noted that among the problems facing health delivery services in the Ga, Dangme East and Dangme West districts are poor quality services, lack of basic equipment, and lack of trained personnel to man key positions (MOH, Greater Accra Region, 2000). Poor physical accessibility to the available facilities makes some portions of the population unable to patronize health services. Table 5.3 shows the primary health care facilities in the study area.

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Table 5.3 The Primary Health Care facilities in the Ga, Dangme East and Dangme West Districts.

Districts/Institution	District Hospitals	Health Centres	Community Clinics
Ga	-	5	5
Dangme East	-	3	4
Dangme West	-	3	7
Total	0	11	16

Source: MOH, GAR, 2000

The new Dangme East District Hospital was commissioned in 2002 and opened to the public in year, 2003. Ga District has a population of 548,001 and is serviced by only 5 health centres and 5 community clinics, whilst Dangme East with a population of 93,193 has only 3 health centres and 4 community clinics and Dangme West District with a population of 96,776 (Population Census Report, 2000) has 3 health centres and 7 community clinics (MOH, 2000). This is a clear situation of inadequate supplies of primary health care services in the rural portions of the Greater Accra Region. All the big health facilities with specialist services are situated in the Accra and Tema Metropolitan areas.

The inadequacy of the health services is clear when the institutions are related to the population. Every district is to have a hospital with the district hospital – population ratio at 1:200,000 as recommended by the MOH in 1995. Yet as at the beginning of this study, none of these 3 rural districts of Greater Accra Region had a district hospital (MOH, 2000). The situation in the Ga District is even worse since the population is over half a million, to be precise it is about 548,011 (Population Census, 2000). The Dangme East

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District Hospital was commissioned in 2002, but opened to public use in 2003. The Dangme West and Ga District Hospitals are yet to be completed and commissioned.

Access to safe water is still a big problem in these rural areas. The people in the Ga District have no pipe borne water. Inhabitants depend on untreated water from streams and rivers as well as water tanker services. These sources of water get contaminated. World Vision International has however provided some bore holes for a few communities. Portions of Dangme East and Dangme West Districts, especially the capitals, Ada and Dodowa have some pipe borne water, but the villages and islands use untreated water (Agyepong, 1999). Excreta disposal leaves much to be desired. Open defecation was observed in all 3 rural districts. Such a situation has serious implications for health status. Diseases like diarrhoea, cholera and malaria could have a high prevalent rate.

Respondents were asked specifically to mention common diseases afflicting members of their households. Malaria was the number one disease (45.5 percent). This confirms the situation recorded in the various OPDs in the study area (Refer to Table 5.2). It was followed by acute headache (24.8 per cent), then diarrhoea (6.4 per cent), gynaecological problems (5.8 per cent), followed by skin diseases (2.6) per cent), accidents (2.4 per cent), rheumatism (2.2 per cent). Table 5.4 gives the details of the common diseases found in households in the study area.

The health status of the people does not look good at all. Most of the diseases mentioned can be prevented. Stressful living, poor eating habits lead to diarrhoea, diabetes, hypertension, headaches and other diseases. Prevention is always better than cure. Some

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women experience serious gynaecological problems, thus 5.8 percent of the diseases mentioned in the study area. Specialist care is needed to address this sensitive situation.

Table 5.4 – Common household diseases as reported by respondents in the Ga, Dangme East and Dangme West Districts

Disease	Frequency	Percentage
Malaria	264	45.5
Acute Headache	144	24.8
Diarrhoea	37	6.4
Gynaecological problems	33	5.8
Skin diseases	15	2.6
Accidents	14	2.4
Rheumatism	13	2.2
Body pains	11	1.9
Cough	10	1.7
Diabetes	8	1.4
Hypertension	8	1.4
Ear infection	7	1.2
Heart burns	6	1.0
Intestinal worms	5	0.9
Gastritis	3	0.5
Anaemia	2	0.3
Total	580	100.0

Source: Based on Field Data, 2001

Manual work plus over work, especially for the women also accounts for the 1.9 percent problem of body pains. Working hard to earn some money to help take care of the family, plus extra hours seeing to domestic activities at home accounts for this problem. Some of the men also work extra hard to provide for the needs of the family. Skin rashes (2.6 per cent) is a problem because of the poor sanitary conditions in the environment. Ga District, especially has a big problem of buruli ulcer. Treatment of this horrifying disease is very expensive and a big financial problem to the patients. The introduction of the National Health Insurance Scheme will help the poor obtain better health care.

Upper respiratory diseases, especially coughs (1.7 percent) are brought about by environmental challenges. Heart burns (1.0 per cent) are also reported. Intestinal worms

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(0.9 per cent), gastritis (0.5), as well as anaemia (0.3 per cent) are all diseases affecting the intestines, then blood levels due to nutritional challenges. Poverty prevents people from eating properly balanced meals leading to excellent health and sufficient blood flowing through the veins. Low counts of white corpuscles in the blood lowers the immunity levels, opening the door to worse health problems. Fear, doubts, debts all lead to more stressful living and psychologically many people are sick and cannot cope with the numerous crisis and challenges in life as families and then as individuals. Malaria, acute headache and diarrhoea accounted for 76.7 per cent of all the diseases afflicting the households.

5.3 DISEASE PATTERNS OF RESPONDENTS

Respondents were also asked to mention common diseases afflicting them as individuals, not their households collectively. Malaria accounted for 40.2 per cent of the diseases afflicting individual respondents (Table 5.5).

The mosquito is public enemy number one. Malaria is preventable. Detail discussions on malaria can be read in chapter 7 of this thesis. Great effort is needed in eliminating this health menace once and for all. Acute headaches accounted for 21.9 per cent of the individual health challenges respondents battle with. Some put it as, "Too many issues to settle in our minds concerning providing food for the family, school fees, clothes. Health problems cause us to think too much leading to serious headaches such as migraine". Diarrhoea accounted for 9.3 percent of the diseases disturbing individual respondents in the study area. Sleeplessness that is insomnia accounted for 6.0 percent of the health challenges afflicting respondents

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Table 5.5: Common diseases affecting individual respondents in the Ga, Dangme East and Dangme West Districts

Disease	Frequency	Percentage
Acute Malaria	233	40.2
Headache	127	21.9
Diarrhoea	54	9.3
Insomnia	35	6.0
Piles	26	4.5
Chest pains	22	3.8
Body pains	18	3.1
Accidents	14	2.4
Gynaecological problems	12	2.2
Diabetes	10	1.7
Skin Diseases	8	1.4
Hypertension	5	0.8
Gastritis	4	0.7
Anaemia	3	0.5
Bilharzia	3	0.5
Nervousness	2	0.3
Intestinal Worms	2	0.3
Heart burns	1	0.2
Rheumatism	1	0.2
Total	580	100.0

Source: Based on Field Data, 2001.

in the study area. Some respondents actually linked it up with acute headaches, putting the two challenges as a big ordeal on them psychologically leading to physical ailments such as hypertension.

One woman in the Ga District said, " I find it difficult sleeping, especially at night because of financial challenges. I owe people money and I do not know where I can even get money to pay them. I am a widow. My husband is not alive to help me so I have a big burden providing for my 5 children. God help me". The four top diseases afflicting individual respondents in the study area accounted for 77.4 per cent of all the diseases mentioned. The four top diseases are malaria, acute headache, diarrhoea and insomnia. These are all diseases that can be prevented. Malaria is still the most important problem facing the people. The environment is basically a malarial ecology; a breeding ground for

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the anopheline mosquito. In the urban milieu, wastes keep mounting at refuse collection points, and with the onset of the rains, these become breeding grounds for mosquitoes. The drains are also poor, causing stagnant water at various points within the drains. Bushes in the rural areas are also important breeding grounds for mosquitoes.

Control programmes have been negligible. In most rural and urban communities, the communities fail to take the initiative to carry out spraying and environmental maintenance programmes. It is in a few cases that community labour is carried out to desilt drains and drain stagnant water at irregular intervals. In the urban areas, unlike the rural communities, more individuals protect themselves with mosquito nets; whilst others contend with mosquito coils that have the potential of inducing respiratory tract infections that rank high among the endemic health problems.

Poverty is the underlying enemy of the health of the people in this area. Mosquito nets, specially treated to prevent mosquitoes from biting the people, are too expensive. Under the primary health care system, pregnant women are allowed to buy highly subsidized mosquito nets at 40,000 cedis. The current market price is between 80,000 – 120,000 cedis, depending on the size and quality of the mosquito net.

The pollution of the environment brings in its wake respiratory tract infections as well as diarrhoeal infections. Harbingers sometimes go to the homes of residents living near refuse grounds to contaminate dishes. Children who play in such areas face the risk of contracting diarrhoeal infections. It is therefore not a surprise that the incidence rates of such diseases are quite high, yet there are no adequate health facilities to deal effectively with them.

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Piles accounted for 4.5 per cent of the diseases affecting individual respondents. The researcher's discussions with some respondents brought out the fact that eating of fruits will solve a lot of this problem with piles since the eating of fruits help people obtain free bowls instead of constipation. The high price of fruits, especially when specific fruits are not in season prevents people from patronizing them. Respondents believed it was a good idea to consume great quantities of fruits according to their season of availability due to harvest times. Chest pains (3.8 per cent), body pains (3.1 per cent), accidents (2.4 percent), gynaecological problems (2.2 per cent), diabetes (1.7 per cent), skin diseases (1.4 percent), hypertension (0.8 percent) and gastritis, anaemia, bilharzia, nervousness, intestinal worms, heart burns and rheumatism follow in that order. The health status of the people is not encouraging. The preventive aspect of primary health care needs to be enforced in the study area. People are still focusing on curative health care rather than preventive health care.

5.4 DIFFERENCES BY PLACE OF RESIDENCE

Spatial differences exist in the Ga, Dangme East and Dangme West Districts. Table 5.6 gives details of the differences in common household diseases in the various districts. Malaria ranks high in all the districts (51.9 per cent in the Ga District; 40.6 per cent in the Dangme East District and 40.0 per cent in the Dangme West). Over half of the respondents in the Ga District mentioned malaria as the top disease afflicting them, compared to 40 per cent in the other two districts. Acute headache featured as the second disease mentioned by the respondents. In the Dangme West district, 30 per cent of the respondents said it was a big challenge to their health whilst 27.5 per cent in the Dangme East and 20 per cent in the Ga District, acknowledged the same challenge.

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Higher percentages of diarrhea and skin diseases were mentioned in the Dangme West and Dangme East Districts, compared to the 1.8 per cent figure given for the other two districts. Dangme West Districts respondents had a total of 2.5 per cent of them mentioning body pains as an affliction, compared to 1.9 per cent by the Ga District respondents and 1.3 per cent by the Dangme East district respondents. Cough levels were higher in the Dangme East district (2.5 per cent) compared to 1.5 per cent in the Ga District and 1.3 per cent in the Dangme West District Ga District had a higher case of diabetes compared to 1.3 per cent in both Dangme East and Dangme West Districts. Hypertension cases also featured higher on the scale at the Ga District (1.5 per cent) compared with 1.3 per cent in both the Dangme East and Dangme West Districts.

The problem of heart burns was higher in both Dangme East and Dangme West districts (1.3) compared to 1.2 per cent in the Ga District. Intestinal worm percentage came to 1.2 in the Ga District, but recorded 0.6 per cent in the Dangme East District and 0.9 per cent in the Dangme East District, and 0.9 per cent in the Dangme West Districts respectively. More of the respondents in the Ga District mentioned gastritis as a health problem in his/her household. On the other hand, 1.3 percent of the respondents in the Dangme East District and 0.6 percent in the Dangme West Districts complained of this disease afflicting their households. In the Ga district, 0.8 percent of the respondents mentioned anaemia as a disease afflicting their households. On the other hand, no respondent in the Dangme East, nor the Dangme West Districts mentioned anaemia as a health challenge.

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Table 5.6: Differences in Common household diseases in the Ga, Dangme East and Dangme West Districts

Disease	Ga		Dangme East		Dangme East		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Acute Malaria	135	51.9	65	40.6	64	40.0	264	45.5
Headache	52	20.0	44	27.5	48	30.0	144	24.8
Diarrhoea	16	6.2	10	6.3	11	6.8	37	6.4
Gynaecological problems	13	5.0	11	6.8	9	5.6	33	5.8
Skin Diseases	5	1.9	5	3.1	5	3.1	15	2.6
Accidents	8	3.1	3	1.8	3	1.8	14	2.4
Rheumatism	5	1.9	4	2.5	4	2.5	13	2.2
Body Pains	5	1.5	2	1.3	4	2.5	11	1.9
Cough	4	1.5	4	2.5	2	1.3	10	1.7
Diabetes	4	1.5	2	1.3	2	1.3	8	1.4
Hyperten-sion	4	1.5	4	1.3	2	1.3	8	1.4
Ear Infection	2	0.8	3	1.8	2	1.3	7	1.2
Heart Burns	2	0.8	2	1.3	2	1.3	6	1.0
Intestinal Worms	3	1.2	1	0.6	1	13.6	5	0.0
Gastritis			2	1.3	1	0.6	3	0.5
Anaemia	2	0.8		-		-	2	0.3
Total	260	100.0	160	100.0	160	100.0	580	100.0

Source: Based on field Data, 2001.

5.5 VARIATIONS BY DEMOGRAPHIC AND SOCIO-ECONOMIC VARIABLES

The Ga District has a total population of 556,581 (Population Census Report, 2000). The sample of respondents from this district was 260. The Dangme East and Dangme West districts with a population of 93,193 and 96,776 respectively, had samples of 160 each, making a total of 320.

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The income, education, employment and marital status of the respondents are indicated in Table 5.7 to 5.10 respectively.

Table 5.7 -Classification of respondents by income (per month in '000s cedis).

Income	Ga		Dangme West		Dangme East		Total	
	Sample	%	Sample	%	Sample	%	Sample	%
<100	79	30.4	66	41.3	62	38.8	207	35.7
<101-200	67	25.8	52	32.5	36	22.5	155	26.7
201-300	63	24.2	31	19.3	41	25.6	135	23.3
>300	51	19.6	11	6.9	21	13.1	83	14.3
Total	260	100.0	160	100.0	160	100.0	580	100.0

Source: Based on field Data, 2001.

Table 5.8: Classification of respondents by Education

Educational Status	Ga		Dangme West		Dangme East		Total	
	Sample	%	Sample	%	Sample	%	Sample	%
No formal Education	124	47.7	82	51.2	88	55.0	294	50.7
Basic Education	77	29.6	43	26.9	45	28.1	165	28.4
Secondary Education+	59	22.7	35	21.9	27	16.9	121	20.9
Total	260	100.0	160	100.0	160	100.0	580	100.0

Source: Based on field Data, 2001

Table 5.9 – Classification of respondents by employment

Employment Status	Ga		Dangme West		Dangme East		Total	
	Sample	%	Sample	%	Sample	%	Sample	%
Employed	133	51.2	73	45.6	75	46.9	281	48.4
Unemployed	127	48.8	87	54.4	85	53.1	299	51.6
Total	260	100.0	160	100.0	160	100.0	580	100.0

Source: Based on field Data, 2001.

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Table 5.10– Classification of respondents by marital status

Marital Status	Ga		Dangme West		Dangme East		Total	
	Sample	%	Sample	%	Sample	%	Sample	%
Married	192	73.8	121	75.6	126	78.7	439	75.7
Unmarried	68	26.2	39	24.4	34	21.3	141	24.3
Total	260	100.0	160	100.0	160	100.0	550	100.0

Source: Based on field Data, 2001.

Incomes are low, an indication of the predominance of poverty in the area. Over 35 percent of the sample earn less than 100,000 cedis a month. Only 14.3 percent of the sample earn above 300,000 cedis a month. There is a disparity by place of residence. There are more low income earners in the Dangme East and Dangme West Districts than in the Ga District. A higher proportion of those earning above 300,000 cedis can be found in the Ga District than the other two districts. Poverty is more likely to affect utilization of health services. Over half of the total sample have had no formal education. A higher percentage of the sample from the Ga District had had secondary education and above, compared with the lower levels at the Dangme West and Dangme East Districts. With education making a positive impact on utilization, the rural-urban differential in utilization need not be overemphasized.

A little over half of the sample are unemployed. There is a disparity by place of residence. There are more employed respondents in the Ga District than in the Dangme West and Dangme East Districts. With regard to marital status, greater part of the respondents are married. The Dangme East and Dangme West Districts had higher percentages of married respondents than the Ga District sample.

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Demographic factors of age and sex have an impact on utilization. The aged have health problems such as body pains, joint pains, hypertension, gastritis, chest pains, heart burns, diabetes, which are experienced more than that of the youth and economic active. Table 5.7 shows the respondents in the districts by age. The Ga District had 51.4 percent of all household heads or their spouses, or representatives between the ages of 59.

Table 5.11 – Respondents in the districts by age.

Districts	Household heads/Spouses				Patients				Total	
	18-59		60+		18-59		60+		No	%
	No.	%	No.	%	No.	%	No.	%	No.	%
Ga	143	51.4	57	46.7	49	42.9	11	16.7	260	44.8
Dangme West	71	25.6	29	23.8	34	28.9	26	29.9	160	27.6
Dangme East	64	23.0	36	29.5	31	27.2	29	27.2	160	27.6
Total	278	100.0	122	100.0	114	100.0	66	100.00	580	100.0

Source: Based on Field Data, 2001.

On the other hand, 25.6 per cent and 23.0 per cent of the 18-59 age bracket originated from the Dangme West and Dangme East Districts, respectively. Out of the total household heads or their spouses/representatives (400) in the three districts, a total of 278 of them, making 69.5 per cent were between 18-59 years, whilst 122 of them, making 30.5 per cent of the household sample, were 60+. Among the patients sampled, in the health centres and community clinics, 114 out of 180, that is 63 per cent of them were between 18-59 years, whilst 37 per cent were 60 years and above. More details would be given in chapter 6 as we focus among others, on the utilization of health services by the various age groups. Sex is another important demographic variable in the utilization of health services. Females suffer peculiar ailments such as gynecological problems as well as greater stress leading to psychological challenges compared to the males. Table 5.8 shows the respondents in the districts by sex.

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Out of 400 heads of households/spouses, 292, forming 73 per cent were males, with 108, making 27 per cent as females. Taken as a whole, together with the example of patients in the health centres and community clinics, out of 580 respondents, 356 of

Table 5.12 – Respondents in the districts by sex

Districts	Household heads/Spouses				Patients				Total	
	Male		Female		Male		Female			
	No.	%	No.	%	No.	%	No.	%	No.	%
Ga	145	49.7	55	50.9	18	28.1	42	36.2	260	44.8
Dangme West	73	25.0	27	25.0	22	34.3	38	32.8	160	27.6
Dangme East	74	25.3	26	24.1	24	37.6	36	31.0	160	27.6
Total	292	100.0	108	100.0	64	100.0	116	100.00	580	100.0

Source: Based on Field Data, 2001.

them (61.4 are males, whilst 224, making 38.6 per cent of the respondents are male. Ga District had 49.7 per cent of the 292 male respondents at the household level, whilst Dangme West and Dangme East Districts had 25.0 and 25.3 per cents, respectively. The proportion of female patients at the health centres and community clinics was higher at the Ga Districts, that is 36.2 per cent, compared to 28.1 per for the males. The proportion for male patients was higher in both the Dangme East and Dangme West Districts, 37.6 per cent and 34.3, compared to 32.8 and 31.0 per cents for female patients. More details will be given in Chapter 6 as greater focus is given on the role of sex and also important socio-economic variables such as income and education in the utilization of health services in the Ga, Dangme East and Dangme West District.

5.6 FACTORS AFFECTING THE HEALTH OF THE PEOPLE

5.6.1 Housing

Over 70% of the houses in the three rural districts, especially those outside the district capitals, are of poor quality. They are made of mud and sticks, and roofed with thatch.

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About 30% of the houses are made with concrete or sandcrete. Amasaman had some of these rural buildings as did Dodowa and Ada. Amasaman incidentally is closer to Accra, the capital city of Ghana, than all the other district capitals.The researcher expected the buildings would be mostly concrete or sandcrete.

One finds a family of 5-8 people living in one or two small rooms. Most roofs leak so whenever it rains water pours or seeps (depending on the seriousness of the situation), into the rooms. Mildew and mould can be found on the walls of the rooms. It is not surprising upper respiratory infections are the third and second top diseases recorded in the Dangme East and Dangme West districts. In the Ga District, it is the fifth top recorded OPD case (Refer to Table 5.1). Poor housing and environmental conditions encourage a very high transmission of communicable diseases such as tuberculosis. Poor ventilation is also a big problem because of the barred windows, or a tiny window in the room. The sleeping room is crowded in some of the villages and even the poor sections of the district capitals.

5.6.2 Electricity and Power Supply

Tuanikope, Pediatorkope, and many of the villages in these rural districts do not have electricity. Kerosene is used for lighting lanterns. The smoke emitted from these lanterns are not healthy. They lead to upper respiratory diseases. (See Table 5.2). In the big towns like Amasaman, Dodowa and Ada, some people have access to electricity. People who use gas and electricity as fuel have less problems with fumes from kerosene and fuel wood. Only 7.8 percent of the respondents use gas for their cooking. Majority of the rural dwellers cannot afford the direct connection to the electricity even when it is available in their area. Fumes from the fuelwood used for cooking is a health hazard. There are a lot

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of diarrhoea problems in the areas. Table 5.9 shows the availability of electricity and pipe borne water supply in the Ga, Dangme East and Dangme West Districts.

Table 5.13 Availability of electricity and water supply in the selected settlement in the Ga, Dangme East and Dangme West District.

Selected settlements	District	Electricity Supply	Pipe borne water supply
Amasaman	Ga	Partial	No
Ngleshie Aman from	Ga	Partial	Partial
Medie	Ga	No	Partial
Dodowa	Dangme West	Partial	Partial
Agomeda	Dangme West	No	Partial
Yakubukope	Dangme West	No	No
Ada	Dangme East	Partial	Partial
Pediatorkope	Dangme East	No	No
Tuanikope	Dangme East	No	No

Source: Based on field Data 2001.

5.6.3 Water Supply

Most of the inhabitants in these rural areas fetch drinking water directly from rivers, streams, wells and other water ways. Communities such as Agomeda, Dodowa, Ada, Sege have good drinking water. Ironically, Amasaman, the Ga district capital has no pipe borne water. According to the opinion leaders, the pipe lines were destroyed during the construction of the Accra-Nsawam road in the 1970s. Amasaman relies on water delivered by tankers, stored in concrete tanks and dispensed to poor households in buckets and other receptacles. Sometimes these concrete tankers are connected to roof tops to harvest rain water to supplement household supplies (Kofie, 2001). There are serious water shortages in all the districts during the dry season. Water based, water borne and insect vector mechanisms disturb the people leading to water related diseases such as

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scabies, diarrhoea, typhoid, bilharzia, schistosomiasis, malaria and even cholera. Records in the out-patient department in all the districts show skin diseases/ulcer, acute eye infections, intestinal worms all occupying high levels (Refer to Table 5.2).

Contaminated water sources by infected persons washing down in rivers and streams pose health hazards to communities that rely on rivers or streams as sources of household water supply. Poor environmental sanitation, plus indiscriminate spitting and emission of nasal and throat secretions could spread measles and other communicable diseases in the various communities (Benneh et al, 1993). Chemical pollution of water through the use of harmful pesticides like DDT is also a health hazard. Few people filter or boil their drinking water.

5.6.4 Solid Waste disposal

Solid waste disposal has an effect on the health of people (Benneh et al, 1993). Open storage of solid waste is practised by most households (73 per cent). This brings about a high prevalence of flies and rodents, leading to poor health, especially diarrhoea. The refuse dumping sites in all the communities, are a nightmare and eyesore. The stench from the site near Mallam is especially sickening. The accumulation of the waste within the neighbourhood are the most visible problem in this sector. Collection points and official dumps become environmental hazards. The sites are unsightly and unpleasant, health problems follow, especially among children. Gutters and waterways are blocked with rubbish from these areas (Awumbila, and Momsen, 1995). Table 5.10 shows the ideas of household heads concerning environmental pollution. Improper disposal of rubbish and sewerage was the top problem (24 per cent of 400) facing the people. It was

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followed by indiscriminating toilet habits in the communities (22 per cent). Urinating everywhere was also seen as a bad source of pollution (12 per cent).

Table 5.14 - Respondents' responses to the source of environmental pollution in the study area

Problem	No of respondents	Percentage of respondents
1. Improper disposal of rubbish and sewerage	96	74.0
2. Indiscriminate toilet habits in the area	88	22.0
3. Urinating everywhere	48	12.0
4. Spitting around	41	10.3
5. Weedy areas harbour snakes	37	9.2
6. Empty tins breed mosquitoes	29	7.3
7. Children defecate on rubbish dumps	26	6.5
8. Stench from dirty gutters and dumping sites	18	4.5
9. Dangerous chemicals used in fishing/farming	10	2.5
10. Polythene bags containing faeces	7	1.7
Total	400	100.0

Source: Based on Field Data, 2001

5.6.5 Toilet Facilities

This is a big problem in the study area, especially Amasaman. Open defecation coupled with pit latrines are sources of viruses and bacteria, leading to skin infections. All the districts have high records of this infection. It is the second OPD recorded disease in the top ten cases in the Ga District. It places fourth and fifth in the Dangme West and Dangme East districts respectively. There are no available public places of convenience. They are all broken down. The filth in such places leaves much to be desired. Faeces found along the streams and rivers pollute the environment. The air is all fouled and disease – carrying insects, especially flies, can be seen. 32% have their private toilets. About 36% of the respondents confessed using open defecation (beaches, bushes, field). Table 5.11 shows the human excreta disposal situation in the various communities.

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Table 5.15 - Human excreta disposal in the various communities.

Facility	No. of respondents	Percentage of respondents
1. Open defecation (beaches, bushes, field)	144	36
2. Private toilets (KVIP, Pit and Pan latrines)	128	32
3. Polythene bag	92	23
4. Refuse dumps	36	9
Total	400	100.0

Source: Field Data, 2001

Improper disposal of human excreta has very serious unhygienic and healthy connotations since it contaminates water leading to cholera, diarrhoea, worm infestation, typhoid and other health problems. Insufficient water means very little water is available for washing hands after going to the toilet. The public health nurses have a big job educating the people on issues of personal hygiene and environmental sanitation.

Buruli ulcer is a mycobacterial infection associated with humid environments. It destroys tissues causing horrifying lesions to the limbs of affected persons and seem to be on its way to replacing leprosy as a social scourge (WHO, 1997). According to WHO, buruli ulcer is the 3rd most widespread mycobacterial disease in the world after tuberculosis and leprosy. The researcher observed patients suffering from it.

Buruli ulcer has assumed alarming proportions in the Ga District. Surveillance mounted in 1993 by the Regional Health Management Team (RHMT) in the Greater Accra Region showed that, out of 100 cases of Buruli Ulcer identified, 98 percent came from Ga District. The disease causes marked debilitation in sufferers and often leads to deformities and disability and may result in complications such as septicaemia (blood poisoning) and death (Mensah-Quainoo, 1997). She indicated in her work on buruli ulcer that the disease

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causes high dropout rates from schools. It leaves in its trail social stigma such as severe deformity including total loss of arms, crippling, impaired grip and limping. Researching on the disease is very important because of the economic losses due to inactivity and the corresponding stress that this brings to already poor families and communities. A total of 378 cases of the disease from 33 communities were reported between the period of October 1997 and September 1998 Amasaman alone had 94 percent (357) of the cases of buruli ulcer, making it the most endemic sub-district in the Ga District (Kofie, 2000). A peculiar feature of the disease is that its causative agent is known, but the exact mode of infection and spread has yet to be established (Mensah-Quainoo, 1997). Endemic communities are located in the basins of the following rivers, Densu, Nsaki, Ntafrafra, Dobro, Adaiso and Honi.

Despite vast improvements in health globally over the past several decades, environmental factors remain a major cause of sickness and death in many regions of the world (Awusabo-Asare, et al, 1997). In the poorest areas, one in five children do not live to see their fifth birthday, largely because of environmentally related and preventable diseases. Health is affected by the environment in which one lives. Rural areas, especially, are facing big challenges in this area. The urban poor also suffer from these challenges.

5.7 CONCLUSION

The most frequently reported diseases for the three districts include malaria, diarrhoea, acute headaches and upper respiratory tract diseases. Factors impeding the health of the people included poor housing and environmental conditions and the use of Kerosene and fuelwood (fumes are a health hazard). Contaminated water sources as well as poor

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disposal of solid and liquid waste also have a negative effect on the health of the people. Good drinking water and clean environments promote better health for the people.

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CHAPTER 6: FACTORS OF PHYSICAL ACCESSIBILITY AND UTILIZATION

6.1 INTRODUCTION

This chapter focuses on the impact of physical accessibility variables of distance, travel time and waiting time and utilization of primary health care services, using descriptive statistics. Distance has a relatively higher impact on the use of primary health care services than all the other variables. Data have been analysed at the total sample, health status, that is, patient non-patient and district levels.

6.2 GENERAL UTILIZATION OF PRIMARY HEALTH CARE SERVICES

Utilization is at three levels, namely regularly, moderately and scarcely. Two attendances at a health centre or community clinic for two illnesses within a year before the survey were defined as "regularly", whilst one attendance was "defined as " moderately". No attendance was defined "scarcely". The general utilization of primary health care services indicating the frequencies and percentages by total sample, district and health status, that is patient and non-patient is indicated in Tables 6.1 and 6.2.

Table 6.1: General utilization of Primary Health Care services for total sample and districts

Utilization	Ga		Dangme West		Dangme East		Total	
	No.	%	No.	%	No.	%	No.	%
Regularly	67	25.8	31	19.4	19	11.9	117	20.2
Moderately	132	50.7	64	40.0	53	33.1	249	42.9
Scarcely	61	23.5	65	40.6	88	55.0	214	36.9
Total	260	100.0	160	100.0	160	100.0	580	100.0

Source: Based on Field Data, 2001.

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.Table 6.2 – General utilization of Primary Health Care Services for patients and non-patients

Utilization	Health Status					
	Patient		Non-Patient		Total	
Regularly	53	29.4	83	20.7	117	20.2
Moderately	79	43.9	20.7	51.8	249	42.9
Scarcely	48	26.7	110	27.5	214	36.9
Total	180	100.0	400	100.0	580	100.0

Source: Based on Field Data, 2001.

Utilisation levels in all three districts are very low. An average of 20.2 per cent of all 580 respondents patronize the primary health care services regularly. Only 11.9 per cent 160 respondents in the Dangme East districts patronized the health centres and community clinics regularly. A slightly higher percentage of 19.4 patronized the primary health care services in the Dangme West District. The highest per cent of a mere 25.8 per of regular users of the health services was obtained from the Ga District. Only 42.9 per cent of the total respondents in the study area used the services moderately.

In the Dangme West District 40.0 per cent patronized the health centres and community clinics moderately, whilst 50.7 per cent did so at the Ga District and 33.1 per cent at the Dangme East districts respectively. In all, 36.9 per cent of the respondents scarcely patronized the health services.

In the Dangme West District, 40.6 per cent of the respondents scarcely used the facilities, compared to 23.5 per cent in the Ga District and 55.0 per cent in the Dangme East District. This may be explained by poverty situation. Poverty in the rural areas prevents residents from using health services regularly. The poverty factor contributes to a worsening health

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situation through malnutrition and exposure to environmental hazards such as insect vectors, pollution and overcrowding. Generally, inhabitants of the Ga District utilise health facilities more than the people in the Dangme West and Dangme East Districts. Data analysis show higher incomes, higher levels of formal education, and higher awareness of health conditions and their significance for personal and national development in the Ga District. The inflow of workers from Accra to Amasaman because of its comparatively lower rent costs and its closeness to Accra also helps in increasing its general status.

6.3 DISTANCE TO HEALTH FACILITIES

About 73% the respondents, live within 5 – kilometre radius of the primary health care facilities (health centres and community clinics). The proportions of the sample living within certain radi from the nearest health centres and community clinics are indicated in Table 6.3.

Table 6.3 – Distances from respondents' homes to the nearest health centre and community clinic.

Radius from health facility	Frequency	Percentage (%)
Less than 1km	304	52.4
1 – 4.9km	118	20.4
5 – 9.9km	92	15.8
10 km and above	66	11.4
Total	580	100.0

Source: Based on Field Data, 2001.

More than half of the respondents (52.4 per cent) live less than one kilometre away from the nearest primary health care facility (health centre or community clinic). Another 36.2

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per cent live within 1-9.9.km away from the nearest primary health care facility, whilst 11.4 per cent live beyond 10 kilometres away. There are disparities between the dwellers in the Ga, Dangme East and Dangme West Districts, as indicated in Table 6.4.

Table 6.4 – Distances from respondents' homes to the nearest health centre and community clinics by place of residence.

District	Radius from PHC facility Dangme East									
	Less than 1km		1-4.9 km		5-9.9 km		10km>		Total	
	No	%	No.	%	No	%	No	%	No	%
Ga	163	62.7	49	18.8	23	8.8	25	9.7	260	100
Dangme East	85	53.1	33	20.6	22	13.8	20	12.5	160	100
Dangme West	56	35	36	22.5	47	29.4	21	13.1	160	100

Source: Based on field data, 2001

More than 60% of the respondents in the Ga District live within I-km radius of health centres/community clinics compared to 53.1% in the Dangme West District and 35% in the Dangme East District. In the Ga District, 18.8% of the respondents lived within 1-4.9km. from the nearest health centre or community clinic compared with 20.6% and 22.5% respectively from the Dangme West and Dangme East Districts. The Ga District had 8.8%, whilst Dangme West had 13.8% per cent for the 5-9.9 km radius. Dangme East District recorded a higher percentage of 29.4% for this level, showing the distance islanders in the Volta Lake travel to the Ada Health Centre or Pediatorkope Community Clinic for their primary health care services. Respondents travel over 10km to reach some of these services (9.7% for Ga District, 12.5% for Dangme West and 13.1% for Dangme East). The average distance of a settlement to a health facility is smaller in the Ga District than in the Dangme East and Dangme West Districts. The geographical contiguity of the Ga District makes health institutions in the area and in Accra potentially and locationally more accessible to the population than in the Dangme West and Dangme East Districts where public transport is also not as easily available, especially on the main

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road to and from Accra and Nsawam, and Accra to Kasoa roads. There are differences by health status, (patient and non-patient), as indicated in Table 6.5.

Table 6.5 – Distances from respondents' homes to the nearest Primary Health Centre/Clinics by health status in the Ga, Dangme West and Dangme East Districts.

Distance km)	Patients		Non-Patients		Total	
	No	%	No	%	No	%
Less than 5	150	83.3	272	68.0	422	72.8
5-9.9	22	12.2	70	17.5	92	15.8
10 and above	8	4.5	58	14.5	66	11.4
Total	180	100.0	400	100.0	580	100.0

Source: Based on Field Data, 2001.

The largest proportion of both patients and non-patients live within 5-kilometre distance of health facilities (83.3% and 68.0%). There is however a smaller proportion of patients(12.2%) than non-patients(17.5%) living within 5 –10 kilometer radius of health facilities, whilst a greater proportion of non-patients (14.5%) than patients lives 10 kilometres (4.5%) and further from health facilities. What this implies is that non- patients have better potential accessibility than patients.

6.4 RESPONDENTS' DISTANCE PREFERENCE TO HEALTH FACILITIES

Respondents were asked to indicate their preferred distance by foot and motorized transport to health centres. Respondents' distance preferences for footing and by motorized transport are indicated in figures 6.1 and 6.2 respectively.

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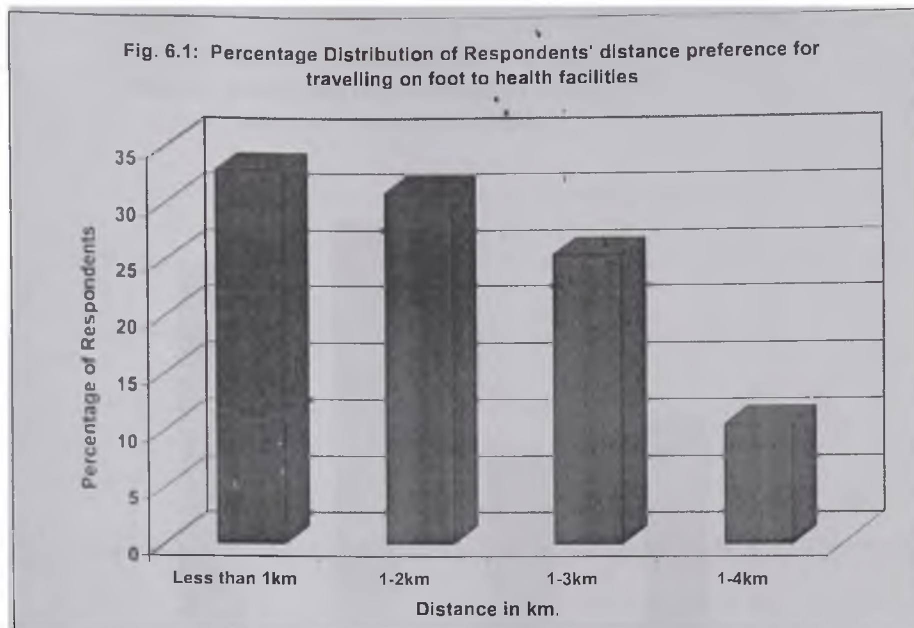

Source: Based on field data, 2001.

Figures 6.1 and 6.2 show that, whereas there is a clear negative relationship between distance preferred by respondents by walking on foot and their use of health services that of the use of motorized transport is not consistent. Though it is clear that longer distances result in lower use, the relationship is not as consistent as that of walking on foot and utilization. A great proportion of the respondents are prepared to cover short distances on foot to health facilities. The same however can not be said for their use of motorized transport where there are fluctuations in the relationship between distance preferred and utilization. The use of motorized transport is determined by three factors. The first is the ability to pay; second is the time spent travelling, and thirdly, the seriousness of an illness. Where there is a serious health problem, the distance and cost factors may sink into insignificance.

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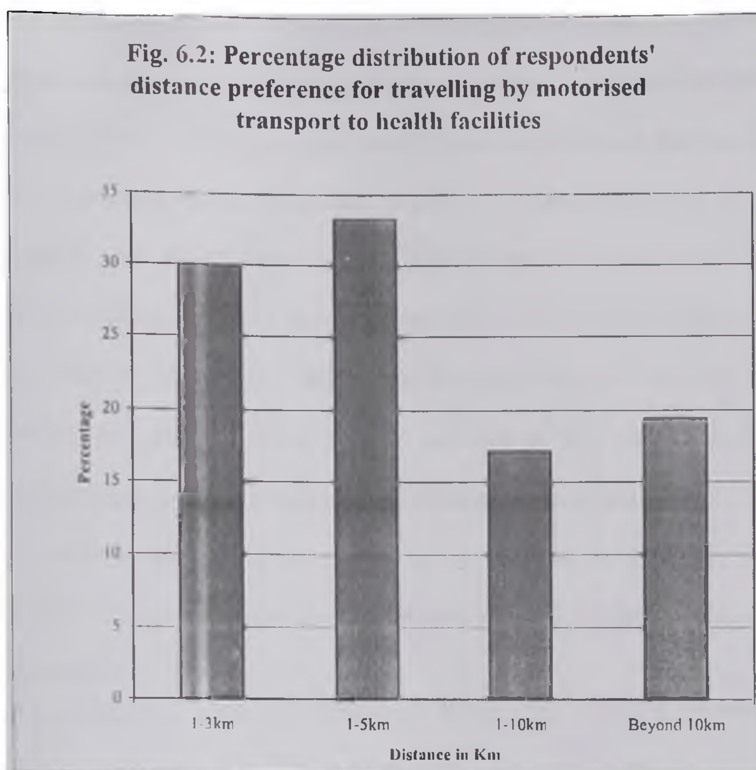

Fig. 6.2: Percentage distribution of respondents' distance preference for travelling by motorised transport to health facilities

Source: Based on field data, 2001.

6.5 DISTANCE AND UTILIZATION

The distribution of respondents' use of health services by distance by total sample and district is indicated in Table 6.6.

Table 6.6 – Percentage distribution of respondents who use health centres and community clinics regularly by distance from home to the health facilities by total sample and district.

Distance (km)	District/Distance (km)					
	Ga		Dangme West		Dangme East	
	No	%	No	%	No	%
Less than 5	51	76..2	10	32..3	6	31.6
5-9.9	8	11..9	11	35.4	4	21.1
10+	8	11..9	10	32..3	9	47..3
Total	67	100.0	31	100.0	19	100.0

Source: Based on field data, 2001

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The regularity of health centres shows a negative relationship with distances above 5 kilometres for the Ga District. Poverty prevents residents from travelling at longer distance. Patients in the Dangme West districts travel beyond the 5 kilometre radius since there are longer distances between the place of residence and the points of referrals. The Dangme East district situation is so because the islanders in the Volta Lake have no available health centre in their communities so are forced to travel by boat to the main land Ada for treatment. They bypass the Pediatorkope Community Clinic because no medical assistant is available there to take care of their medical needs. They have no confidence in the nurses manning the Pediatorkope Community Clinic. The nurses on duty gave this information to the researcher and respondents confirmed this as a fact. The Medical Officer and Senior nursing Officers at the Ada Health Centre echoed these same sentiments.

6.6 TRAVEL AND WAITING TIMES AND UTILIZATION

Travel time is defined as the time taken from arrival at the bus or 'trotro' , or riverside station to the time of arrival at the health centre or clinic whilst waiting time is the time spent from arrival at the health facility to the time one actually sees a doctor. Travel time is depicted in Table 6.7.

Table 6.7 – Percentage distribution of respondents who use health care services regularly by travel time to health facilities by total sample and district.

Travel Time	District/Distance (km)					
	Ga		Dangme West		Dangme East	
	No	%	No.	%	No.	%
< 15 min.	15	22.4	9	29.0	3	15.8
15 – 30 min.	32	47.8	5	16.1	2	10.5
30 min – 1hr.	18	26.9	6	19.4	4	21.1
1 – 2hrs.	2	2.9	2	6.5	5	26.3
> 2hrs.	0	0.0	9	29.0	5	26.3
Total	67	100.0	31	100.0	19	100.0

Source: Based on field data, 2001

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Generally travel time has very little impact on utilization. Distances to some health centre and community clinics are short so some patients do not travel for long hours in vehicles. Variations, however, exist in the study area. No regular user of health facilities in the Ga District actually travelled over 2 hours to get to the health facility. Over 70 percent of the regular users of health facilities travelled within 30 minutes to get to the health facility. This contrast sharply with the situation in the Dangme West district where more than half of the regular users of the health facilities said they had to travel over 30 mins and even over 2 hours to get to the health center. The situation in the Dangme East District is more challenging since 73.7 percent actually travelled more than 30 mins, and even over 2 hours to get to the Ada health center, some coming from the isolated islands in the Volta Lake. These findings in the Dangme East and Dangme West Districts confirm findings on travel time and attendance pattern in the developing countries. Meise et al. (1996) saw time distance as a major impediment to hospital attendance. It is not surprising some islanders prefer to stay at home when they are sick and self medicate and use traditional herbal medicine and only try to travel long distances by canoe when the illness worsens or takes a turn for the worse.

Waiting times at the health centers and community clinics have an impact on utilization patterns (Table 6.8).

Table 6.8 – Percentage distribution of respondents who use the health facility regularly by waiting time at the health center by total sample and district.

Waiting Time (min).	District/Utilization					
	Ga		Dangme West		Dangme East	
	No.	%	No.	%	No.	%
30 – 60	8	12.0	10	32.3	5	26.3
61 – 120	11	16.4	9	29.0	4	21.1
< 120	48	71.6	12	38.7	10	52.6
Total Sample	67	100.0	31	100.0	19	100.0

Source: Based on field data, 2001.

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Over 70% of the respondents spend over 2 hours waiting to be attended to by the medical assistant or nurse in charge of the health facility. In the Ga District, 71.6 per cent of the regular users of the health facilities actually waited for over 2 hours because of the presence of man patients especially in the Amasaman Health Centre. Dangme East District responde its (52.6 per cent) also go through this same problem because of many patients at the A la Health Centre, the main primary health care referral point in the district, as at the year 2002/2003, before the opening of the new district hospital at Faithkope. Waiti ig time has a greater effect on utilization in the Ga district more than in the Dangme East ind Dangme West districts. Once again, people are tempted to stay at home, and conti ue with their self-medication and traditional medicine therapies for "minor" sicknesse s like headache and piles.

6.7 CONCLUSION

Regularity of attendance to PHC centres and community clinics is rather low with an observed spatial disparity in the use of these facilities within the three districts. Distance in the most important physical accessibility problem that affects the use of primary health care services in all the districts, especially the Dangme East in Dangme West ones. Ga District, especially is closer to Accra and tends to benefit from the use of vehicles plying the main Accra-Nsawam route. Travelling and waiting time are also important factors in the study. Chapter seven looks at the role of other factors such as income and service cost, in utilization of PHC services.

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CHAPTER SEVEN: OTHER FACTORS AFFECTING UTILIZATION

7.1 INTRODUCTION

Apart from physical accessibility factors, demographic, socio-economic and morbidity factors also affect utilization patterns. These factors include service cost, transport cost, age, sex, employment, education and income status, type of disease and type of facility. The analyses are at 2 levels, total sample and district. There are differences as well as similarities in the various districts concerning the factors affecting utilization of primary health care in the Ga, Dangme East and Dangme West Districts.

7.2 SERVICE COST

The literature survey on utilization patterns in Africa indicates a strong inverse association between service cost and use of health services.

Table 7.1: Percentage distribution of respondents who use the health facilities regularly by service cost by total sample and district.

Service Cost (¢000s)	District/Utilization					
	Ga		Dangme West		Dangme East	
	No.	%	No.	%	No.	%
<20	14	21.0	23	74.2	9	47.4
20 – 40	39	58.2	3	9.6	4	21.1
41 – 60	8	12.0	2	6.5	3	15.8
61 – 80	3	4.4	2	6.5	2	10.5
81+	3	4.4	1	3.2	1	5.2
Total	67	100.0	31	100.0	19	100.0

Source: Based on Field Data, 2001.

Service costs for the entire sample and by district are indicated by Table 7.1. A sizeable proportion of respondents utilize health services regularly for service cost less than 20,000 to 60,000, cedis. The Ga District had 91.2 percent, compared to 90.3 per cent for

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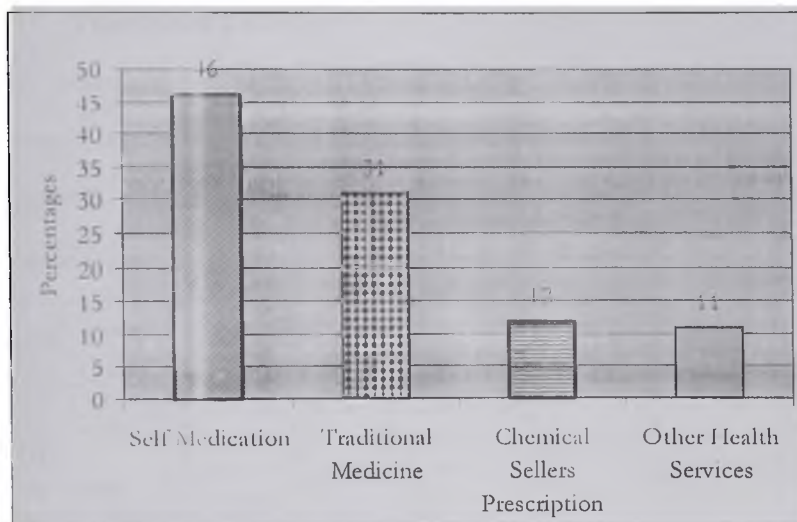
Dangme West, and 84.3 per cent for Dangme East Districts, respectively, of the respondents paying, within the above mentioned range for simple services. Altogether 89.7 per cent of the 117 respondents who said they regularly attended health services paid up to 60,000 cedis for services received. Only 10.3 per cent of them paid 61,000 cedis and above for their treatment.

In general, service cost has a negative effect on the utilization of health services. The cash and carry system is a disincentive for the poor people. Family members sometimes come to the aid of patients who are unable to bear the cost of treatment. A relationship has been drawn between the use of alternative curative devices and service cost. An attempt has been made to find out the alternative used due to financial constraints.

Fig. 7.1: Responses of Respondents to their use of alternatives to P.H.C. Services.



Source: Based on Field Data, 2001.

Responses to the use of alternatives in the event of not going to the health centres and clinics are indicated in figure 7.1.

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Self-medication, use of traditional medicine, and chemical seller' prescription play a major role in the curative service, in the absence of health services. This is as a result of certain fundamental factors. First is the problem of physical accessibility. People living far away from health facilities will choose such methods instead of travelling or walking long distances. Second is the factor of education that reinforces the need for scientific medicine. The well educated is more conscious of the negative implications of unscientific medicine. The well educated are more likely to be employed, so have the financial means to pay for service and transport costs. Third is the factor of cost. Ability to pay is very fundamental to utilizing health services. Finally is the lack of confidence in scientific medicine that is a function of education and culture.

7.3 · TRANSPORT COST

The percentage distribution of respondents who use the health facility regularly by transport cost by regional total sample and district is indicated by Table 7.2.

Table 7.2 – Percentage distribution of respondents who use the health facility regularly by transport cost by total sample and district.

Transport Cost (¢)	District/Utilization					
	Ga		Dangme West		Dangme East	
	No.	%	No.	%	No.	%
<1000	32	47.8	4	12.9	3	15.9
1,100 – 2,000	14	20.9	3	9.7	5	26.3
2,100 – 3000	8	11.9	7	22.6	2	10.5
3,100 – 4,000	6	8.9	9	29.0	4	21.0
4,000	7	10.5	8	25.8	5	26.3
Total Sample	67	100.0	31	100.0	19	100.0

Source: Based on Field Data Work, 2001.

Transport cost does not have serious negative effect on the total sample since most users of the primary health care facilities live within walking distances. Ordinary trotro, taxi and boat rides within the districts are reasonable (300 1,500 cedis).

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The big problem is those travelling by hired canoe from the Volta Lake islands in the Dangme East District, to the mainland, Ada for treatment and health care. Sometimes canoes are hired, costing 3,000 – 6,000 cedis. Where the sick person is unable to walk from the banks of the Volta River/Lake to the Ada Health Centre, a taxi is hired for 3,000 – 4,000 cedis in addition to the earlier canoe cost. The same situation occurs at the Dodowa Health Centre, a referral point, where patients from distant and isolated villages like Yakubokope and Osudoku arrive at the health centre in chartered taxis costing 10,000 – 40,000 cedis.

7.4 AGE AND SEX

Survey results for age and utilization for total sample and district are indicated by Table 7.3.

Table 7.3 – Percentage distribution of respondents who use the health facility regularly by age by total sample and district.

Age	District/Utilization					
	Ga		Dangme West		Dangme East	
	No.	%	No.	%	No.	%
18 – 59	43	61.1	21	67.7	15	78.9
60+	24	35.9	10	32.3	4	21.1
Total Sample	67	100.0	31	100.0	19	100.0

Source: Based on Field Data Work, 2001.

It is evident that the youth and economically active utilize health services more than the aged. The first explanation that can be offered is the fact that old people, especially the illiterates are set in their old way of doing things so they prefer to use traditional medicine and also self-medicate at home rather than health centers/clinics. Secondly, most of the aged are economically challenged and do not have money to pay for the drugs even where consultation fees are not charged for the aged. The cash and carry system prevents the

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poor from seeking medical care. They are too poor to pay for health services. Thirdly, most of the aged in these rural districts have no pension benefits. This coupled with the lack of a national health insurance scheme places the aged in a serious predicament upon retirement.

The welfare status of a retired public worker is better than the aged who have not been publicly employed. Most aged people depend on their children and extended family members for all their finances. In the midst of poverty in the lives of these relatives, the aged suffer financially.

There are differences by place of residence. A greater percentage of the youth and economically active in the Dangme West and Dangme East Districts utilize health services more regularly than their counterparts in the Ga District. In the Ga District, better employment opportunities with better pay are available to the able bodied and strong residents who work in Accra and commute daily for their livelihood. Most of them attend hospitals outside the district. Percentage distribution of respondents who utilize health services regularly by total sample, and district by sex are indicated by Table 7.4.

Table 7.4 – Percentage distribution of respondents who use the health care facilities regularly by sex by total sample and district.

Sex	District/Utilization					
	Ga		Dangme West		Dangme East	
	No.	%	No.	%	No.	%
Male	38	56.7	22	70.9	13	68.4
Female	29	43.3	9	29.1	6	31.6
Total Sample	67	100.0	31	100.0	19	100.0

Source: Based on Field Data, 2001.

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Males utilize health services more regularly than females for the total sample. This situation is inconsistent with equity in health care, given that women need more health services than men. Because of their childbearing role and the complications associated with it, women require specialist services (Buor, 2003). In Ghana, most households are headed by males who take most household decisions, especially in the rural areas. A good number of women do not earn cash incomes even when they work hard on the family farms and at home. With the men dominating decision making, the utilization of women may be decided by men. Greater percentage of both females and males utilize health services more regularly in the Ga District than their counterparts in the Dangme West and Dangme East districts.

Greater autonomy of females in the "urban" centres (Amasaman) in this case than the typical rural (Dangme West and Dangme East Districts, including their capitals, Dodowa and Ada) could be said to be a factor. In the urban centres, women tend to be less dependent on their husbands and share family decision with them. In the urban centres, women enjoy some financial autonomy so could more easily access health facilities

7.5 EMPLOYMENT

Employment also has an impact on utilization of health services. The percentage distribution of respondents who utilize health services regularly by total sample and district by type of employment is indicated in Table 7.5. The employed utilize health services more regularly than the unemployed. In Ghana, there is no support scheme for the unemployed, and there is also no national health insurance scheme so the employed has very little access to health services. In all the districts, the employed utilize health facilities more regularly than the unemployed; the proportions in the Ga District are higher

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Table 7.5 – Percentage distribution of respondents who use the health facilities regularly by employment by total sample and district.

Employment	District/Utilization					
	Ga		Dangme West		Dangme East	
	No.	%	No.	%	No.	%
Employed	51	76.1	18	58.1	12	63.2
Unemployed	16	23.9	13	41.9	7	36..8
Total Sample	67	100.0	31	100.0	19	100.0

Source: Based on Field Data, 2001.

because of the greater opportunities for employment in the nearby Accra metropolis, compare to the Dangme East and Dangme West districts, which are farther away.

7.7 FORMAL EDUCATION

There is some relationship between formal education and utilization. Differences by educational status for the entire sample, and district are indicated in Table 7.6.

Table 7.6 – Percentage distribution of respondents who use health facilities regularly by educational status by total sample and district.

Educational Status	District/Utilization					
	Ga		Dangme West		Dangme East	
	No.	%	No.	%	No.	%
No formal education	15	22.4	6	19.4	5	26,4
Basic Education	21	31.3	12	38.7	7	36.8
Secondary Education+	31	46.3	13	41.9	7	36.8
Total Sample	67	100.0	31	100.0	19	100.0

Source: Based on Field Data, 2001.

Formal education has a strong impact on utilization of health services for the total sample. The educated utilize health services more regularly than the illiterates and the rate of utilization increases with increase in the level of education. Respondents with secondary education and above in the Ga District utilize health services more than those in the Dangme West and Dangme East districts.

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7.7 INCOME

The incomes of respondents were related to their utilization patterns by total sample and district (Table 7.7).

Table 7.7- Percentage distribution of respondents who use health facilities regularly by income status and district.

Income Quintile (cedis)	District/Utilization					
	Ga		Dangme West		Dangme East	
Very Low (<100,000)	8	11.9	3	9.7	2	10.5
Low(101,00-200,000)	11	16.4	5	16.1	2	10.5
Medium(201,000 - 300,000)	15	22.4	4	12.9	5	26.3
High(301,000-400,000)	20	29.9	12	38.7	7	36.8
Highest(>400,000)	13	19.4	7	22.6	3	15.9
Total Sample	67	100.0	31	100.0	19	100 0

Source: Based on Field Data, 2001.

It is evident in the total sample and district that, there are wide disparities between the lowest and the highest quintiles (<100,000 cedis a month to over 400,000 cedis a month). Income has greater impact on Ga District than on Dangme West and Dangme East Districts.

7.8 DISEASE TYPE

Attendance patterns are related to the type of disease. For the diseases that affect respondents most, eight, which are reported more regularly, are indicated in Table 7.8. Malaria is still the most important problem facing health providers. The environment is basically a malarial ecology; breeding ground for the anopheline mosquito. In the Ga District, for example, wastes keep mounting at refuse collection points, and with the onset of the rains, these become breeding grounds for mosquitoes. The drains are also poor, causing stagnant water at various points within the drains. Potholes are also prevalent in

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Table 7.8 – Most prevalent diseases with high regularity of reporting at health facilities.

Disease	District		
	Ga	Dangme West	Dangme East
	Proportion (%)	Proportion (%)	Proportion (%)
Malaria	83.3	84.1	85.2
Acute Headaches	53.3	52.3	51.7
Respiratory Tract Infection	25.4	33.3	24.8
Diarrhoea	45.5	48.8	31.7
Gynaecological problems	22.2	24.5	27.0
Skin Diseases	23.4	28.6	37.7
Bodily pains	33.3	47.7	51.3
Hypertension	20.6	31.1	42.0

Source: Based on field Data, 2001.

several areas, especially at the urban margins of Accra where development of lands are taking place. The rural areas with uncleared bushes and stagnant water, are potential grounds for the breeding of mosquitoes. The Dangme East district with its famous Volta delta/estuary at Ada is a big example of these breeding grounds for mosquitoes.

Control programmes have been negligible. Communities have failed to take the initiative to carry out spraying and environmental maintenance programmes. Community labour is hardly carried out to desilt drains and drain stagnant water at irregular intervals. Most individuals do not protect themselves with mosquito nets because the bed ones especially cost 80,000 – 120,000 cedis, depending on the quality and size. The rural dwellers find this price to be too expensive; they simply cannot afford it. Dwellers contend with mosquito coils with a high potential of inducing respiratory tract infections and chest pains.

Stress and challenges of life brings in its wake severe headaches, a top disease in the study area. The pollution of the environment brings in its wake respiratory tract infections as well as diarrhoeal infections. Harbingers sometimes go to the homes of residents living

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near refuse grounds to contaminate dishes. Children who play in such areas face the risk of contracting diarrhoeal infections. It is therefore not a surprise that the incidence rates of such diseases are quite high, yet there are no adequate health facilities to deal effectively with them. In addition to this, those who face such a health trauma may face the problem of cost accessibility.

7.9 TYPE OF HEALTH FACILITY

Utilization varies by the type of health facility. Private/Mission hospitals enjoy higher patronage than the other health facilities (Table 7.9). The private/mission hospitals (Battor Catholic Hospital and the Nsawam Catholic Hospital) and the Korle Bu Teaching Hospitals have the highest patronage. These are referral levels of health service so they automatically attract large users. They also provide specialist services that are not available in the health centres and clinics.

Table 7.9 – Percentage distribution of respondents who utilize health facilities regularly by type of facility.

Facility	Frequency	%
Korle Bu Teaching Hospital	121	20.9
Public Hospital	61	10.5
Private/Mission Hospital	162	27.9
Public Polyclinic	40	6.9
Public Health Centre	81	14.0
Public Clinic	40	6.9
Private Clinic	29	5.0
Traditional Birth Attendant	46	7.9
Total	580	100.0

Source: Based on field Data, 2001.

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Korle Bu Teaching Hospital has radiological, chemotherapy, physiotherapy and other specialist departments. The private/mission hospitals have the highest patronage because of the better quality of treatment and warm, pleasant behaviour of the staff. The responses of respondents to whether public hospitals are better than private/mission hospitals are as indicated in Table 7.10.

Table 7:10: Responses of respondents to whether public hospitals are better than private mission hospitals.

District	Yes		No		Uncertain		Same		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Ga	104	40.0	128	49.2	26	10.0	2	0.8	260	100.0
Dangme West	41	25.6	83	51.9	32	20.0	4	2.5	160	100.0
Dangme East	59	36.9	72	45.0	24	15.0	5	3.1	160	100.0

Source: Based on Field Data, 2001.

Forty-nine percent of the respondents in the Ga District said the public hospitals were not better than the private mission hospitals. Fifty two percent of the respondents in the Dangme West district gave that same answer, compared to 45% in the Dangme East District. Forty percent is the Ga District and 25.6% percent and 36.9% from the Dangme West and Dangme East Districts respectively answered "Yes" to the fact that the latter was better than the former. The reasons given by the respondents who consider private/mission hospitals to be better than public hospitals are indicated in Table 7.11.

Table 7.11 – Reasons why private mission hospitals are better than public hospitals.

District	Responses							
	Quality Service		Less time spent		Better diagnosis		Availability of drugs	
	No	%	No	%	No	%	No	%
Ga	42	32.8	5	3.9	13	10.2	12	9.4
Dangme West	28	33.7	4	4.8	9	10.9	8	9.6
Dangme East	23	32.0	2	2.8	6	8.3	7	9.7

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Table 7.11 contd.

District	Responses									
	Low Service Cost		Less expensive drugs		No Bribery		Better staff attitude		Total	
	No	%	No.		No	%	No	%	No.	%
Ga	8	6.3	3	2.3	4	3.1	41	32.0	260	100.0
Dangme West	6	7.2	3	3.6	4	4.9	21	25.3	160	100.0
Dangme East	5	7.0	2	2.7	3	4.2	24	33.3	160	100.0

Source: Based on Field Data, 2001.

Thirty two percent of the Ga District respondents said they preferred the private mission hospitals because of quality service, compared with 33.7% from the Dangme West and 32% from the Dangme East respectively.

7.10: CONCLUSION

Income is the most important socio-economic factor which affects the use of primary health care services. Financial challenges impede the use of these important facilities in and outside the districts. This has given rise to a situation whereby 50% of the population of the study area use self-medication, a very dangerous health care strategy and a serious act of drug abuse. Thirty-one percent use traditional or herbal medicine. Transport and service cost as well as education, sex and age are also important factors in the accessibility and utilization of PHC services. Preventable diseases such as malaria an diarrhoea top the list of diseases in the districts.

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CHAPTER 8: SYNTHESIS OF UTILIZATION OF PRIMARY HEALTH CARE

8.1: INTRODUCTION

This chapter attempts a multivariate analysis, using the linear regression model, to assess the relative impacts of the independent (predictor) variables on the dependent (outcome) variable of utilization. Distance and income are key variables in the utilization of health services in all the districts. Education and employment are also important variables affecting the use of the facilities available in the various settlements.

8.2 THE VARIABLES

The dependent (outcome) variable is the utilization of primary health care services. The independent (predictor) variables are grouped into physical, social, spatial, economic and demographic. The physical variables are distance from home to health facilities, waiting time at the health centre or community clinic, and travel time to the facility. Distance has been identified as a very crucial factor in utilization of health services since it involves transport cost. Waiting time can also discourage attendance in a developing country where health is yet to be recognized as a crucial factor in development.

The social variables include education and employment. In predominantly illiterate communities, education is a very important variable. There are complete illiterates, school dropouts, primary school leavers, secondary school leavers and tertiary graduates. The educational categories were, "no formal education", "basic education, and "secondary education and above" Education, which is positively associated with enlightenment, employment and income, has a significant impact on utilization. Employment will ensure income, hence ability to pay for health care services. The type of employment will also

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indicate the ease with which a patient can secure permission to move to the hospital, health centre or community clinic.

The spatial factor, place of residence, that is, rural-urban is very important in access and utilization of health facilities in developing countries. The distribution of health facilities tends to favour the urban areas; therefore an assessment of utilization by residence is very important for policy initiatives. Income, an economic factor, is about the most important socio-economic variable that influences access to health studies. In almost every study of access and utilization of health services in developing countries, poverty has been found to be the most inhibiting factor. A person may be knowledgeable enough to see the need to attend hospitals but without the financial capability, utilization cannot be effected.

Demographic factors of age and sex have an impact on utilization. The aged have health problems that may differ from the youth and economic active, which may call for various levels of health care use. The economically active have access to more financial resources, so may have greater access to health care use. There could be differences by sex. Females tend to have multiple health problems so may need greater use of health services. On the other hand, males may have greater access to financial resources so may have greater revealed access to health facilities.

The variables with interaction terms that are significant at the selected probabilities are entered into the multiple regression model for each of the samples, that is total sample, patient and non-patient and districts.

A multiple regression model is as indicated:

$$Y = A + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots \beta_n X_n t +$$

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Where, Y = Dependent or Response Variable

A = Constant or Intercept in Simple Linear - Regression

X1, ..., Xn are the Independent variables or factor on which Y depends and estimates based upon this model (Yeomans, 1979). To determine what percentage of the variation in the sampled dependent variable has been explained by the independent (predictor) variables in the regression (predictor) variables in the

Regression equation, we determine the coefficient of determination, R^2 (Kvanli, et al, 1992).

The independent variables used for the study are

Sex = X_1

Age = X_2

Employment = X_3

Education = X_4

Distance = X_5

Waiting Time = X_6

Travel Time = X_7

Income = X_8

Transport Cost = X_9

Service Cost = X_{10}

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$\beta_1 \ldots, \beta_n$ are the coefficients of the independent variable. They indicate the effects on Y.

= Residual or error term.

The independent variables are the predictor variables, whilst the dependent variable is the outcome or response variable. In effect, the independent variables determine the response (outcome) variable. The dependent variable is estimated from two, three or more independent variables, the main justification being the appearance of higher coefficient of determination. The coefficients of the independent variables ($\beta_1 \ldots\ldots \beta_n$) indicate the influence of the factors on the response variable, that is utilization. The greater the variation of the dependent variable which the regression equation can explain, the more reliable will be the predictions. The dependent (outcome) variable Y, is utilization of health services. The multiple regression factors that were significant were used to build multiple regression models of utilization of health services for districts (total sample), patient and non-patient and for each of the districts.

The non-physical accessibility variables that statistically make a great impact on utilization for the total sample are income and service cost. The impact of education, though, statistically significant, is not strong, as depicted by the low coefficient. The multiple regression model makes a meaningful contribution to research on accessibility and utilization, deviating from the predominantly bivariate approach. Health conditions are not favourable in the rural parts of the Greater Accra Region, especially areas like the Dangme East and Dangme West Districts, which are further away from Accra, than the Ga District.

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8.3 MULTIPLE REGRESSION MODELLING

Cross-tabulations fail to show clear differences among sets of data, especially where differences are not clearly distinct. The linear regression depicts the impact independent variables have on dependent (outcome) variables; so regression factors arte used to explain relative impacts. The rationale for introducing multiple regression model as an important contribution to the study of accessibility and utilization of health services is that, most studies have used the bivariate analysis. Most studies have attempted single variable studies instead of multivariate analysis. Buor (2001) successfully used the multivariate approach in his studies in the Ashanti Region. He saw that the multivariate approach could help identify the relative strengths of the variables that affect utilization. The single variable study approach fails to analyse the broader dimensions of the access – utilization problem.

The regression factors for the total sample and health status (patient and non-patient) and districts with their probability values, are indicated in Tables 8.1, 8.2 and 8.3 respectively.

Table 8.1: Multiple Regression Coefficients of independent variables on utilization for total sample

Variables	Beta Coefficient	Significance
Sex	- .045	.087
Age	.038	.298
Employment status	.024	.329
Educational Status	.087	.002
Distance	-.317	.000
Waiting Time	-.128	.000
Travel Time	.036	.387
Income	.454	.000
Transport Cost	.089	.009
Service Cost	-.145	.000
Adjusted R2	.552	

Source: Based on Field Data, 2001.

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Table 8.2 – Multiple Regression Coefficients of independent variables on utilization for patients and non-patients

Variables	Patient		Non-Patient	
	Beta Co	Sig.	Beta Co	Sig.
Sex	-.124	.017	-.017	.649
Age	-.142	.006	.068	.026
Employment Status	.039	.414	.035	.268
Educational Status	.016	.668	.103	.004
Distance	-.223	.000	-.376	.000
Waiting Time	-.167	.004	.089	.000
Travel Time	.085	.105	-.15	.578
Income	.532	.000	.440	.023
Transport Cost	.032	.538	.077	.046
Service Cost	.093	.071	-.259	.000
Adjusted R^2	.662		.549	

Source: Based on Field Data, 2001.

Of the accessibility variables, income exhibits the highest coefficient with utilization. For the entire study area, the beta coefficient is 0.454 at a significance of 0.000, indicating a high positive correlation. This is followed by distance with a beta coefficient of -0.317 at a significance of 0.000. Waiting time has a beta coefficient of - 0.128, which is significant at 0.000, whilst service cost is at -0.145.

For patients, income once again is the top coefficient at 0.532, compared with 0.440 for non-patients. Distance affects non-patients more than the patients and is at 0.376 and 0.223 respectively. Service cost has a higher beta coefficient for the non-patients, at -0.2598 whilst the patients have a beta coefficient of .093.

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Table 8.3 – Multiple Regression Coefficient of independent variables on utilization for districts

Variables	Ga		Dangme West		Dangme East	
	Beta Co.	Sig.	Beta Co	Sig.	Beta Co.	Sig.
Sex	-.031	.236	-.019	.631	.020	.018
Age	.024	.348	.023	.433	.022	0.562
Employment Status	.038	.154	.017	.582	.014	.573
Educational Status	.074	.138	.061	.091	.063	.92
Distance	.347	.000	-.463	.000	489	000
Waiting Time	.173	.534	-.194	.000	.215	.000
Travel Time	.008	.637	.016	771	.019	.745
Income	.454	.000	.335	000	.348	.000
Transport Cost	.083	.539	.157	.041	186	053
Service Cost	.161	.241	.239	.000	245	.000
Adjusted R^2	.486		624		.638	

Source: Based on Field Data, 2001.

For the entire sample the variables that are significant at the selected probabilities are income, distance, service cost, waiting time, transport cost and education in order of importance. Income is predominant in all the districts. (0.454,0.335 and 0.348). It however has a greater impact on the Dangme East and the Dangme West Districts than the Ga District. Poverty is both a rural and urban phenomenon, but the rural dimension is greater than the urban situation. Service cost is greater at the Dangme East and Dangme West Districts, than the Ga District. (0.245,0.239 and 0.161).

Poverty is enemy number one. The emergence of income and distance as the most important factors affecting utilization could be explained by the fact that most respondents in the Ga, Dangme East and Dangme West Districts, are poor. Those living in the Volta islands, and Shai Hills for example travel long distances to get to the main health centres at Ada and Dodowa respectively. The situation is even worse at the Dangme East District where very sick people are put into hired canoes and brought to the banks of the Volta River, and where the patient is too weak or sick to walk or be carried on the back of a relative, a taxi is hired to transport them to the health centre. In the Ga District, the

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distance factor is less critical than the situation in the two other rural districts. The problem of distance, once again is critical in the Ga District when ever patients delay in coming to the Amasaman Health Centre, for example, and so are too sick to walk and end up being transported in a taxi.

Waiting time is a challenge confronting the people. The respondents are generally busy with their farming, fishing and other business activities and so do not look forward to spending long hours waiting to be attended to by the medical assistant at health centres. Income, distance, service cost and waiting time challenges delay them at home, with them applying traditional therapies and self-medication till the situation gets very serious and sometimes even fatal. This situation of long waiting hours is more serious in the Ga District then in the Dangme West and Dangme East Districts.

Transport cost is not a big deal where patients are able to walk to the health centre or community clinic close by. The problem is where taxis or canoes are hired because patients are too sick to walk or travel by minibuses (trotros). Transport charges are higher in the Dangme East and Dangme West Districts where respondents travel longer distances than they do in the Ga District. The poor nature of roads also lengthens travel time. Storms and strong currents in the Volta lake sometimes increase travel time in the Dangme East District, especially among the islanders who travel to Ada for their health care services. The impact of education on utilization is low. Income and distance are clearly the main issues in utilization of health care in the study area. The impact of education is significant for non-patients, but not patients.

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The impact of sex and age for health status (patient and non-patient) has been exemplified by the survey. Utilization has a negative impact on female patients, whilst for non-patients, the impact is statistically not significant. The impact of age on utilization is statistically significant. There is a negative effect; the higher the age, the lower the utilization by patients, whilst for non-patients, age has a positive impact on utilization. The impact of employment on utilization is not statistically significant for all categories of data. A separate study in the near future is needed to establish possible hypotheses that shall form the basis for further research into these interesting health issues.

8.4 CONCLUSION

Distance is a very crucial factor in utilization of health services. It involves transport cost. Income is another important variable since it affects one's ability to pay for the service in the first place. Social variables like education and employment also play their important roles in the utilization of health care services. The economically active have access to more financial resources, so have greater access to health care. Males have an advantage over females because of better economic power for the former. The elderly are disadvantaged compared to the youth who are able to work and make more money.

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CHAPTER 9: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

9.1 INTRODUCTION

The results of the research have been summarized, followed by recommendations aimed at improving accessibility and utilization of primary health care services in the Ga, Dangme West and Dangme East Districts of the Greater Accra Religion. The validation of the hypotheses and the framework has also been stated.

9.2 SUMMARY OF FINDINGS

The study represents an original piece of work carried out on accessibility and utilization of Primary Health Care in the Ga, Dangme East and Dangme West Districts of the Greater Accra Region. As such, it provides a basis for comparing the health care facilities and outcome with similar existing studies in other regions like Ashanti. The research set out to examine the factors of accessibility and how they relate to the utilization of primary health care services in the three rural districts in the Greater Accra Region. The physical accessibility factors examined were distance, travel time and waiting time. The demographic and socio-socio-economic factors, namely income, transport cost, service cost, education, and employment status were also regressed on utilization. The research aimed at either confirming or invalidating existing research findings.

This project confirmed and also rejected existing research findings in Ghana and also elsewhere in Africa. There is a general paucity of health facilities throughout the districts. This has put the health centers under great pressure with irregular attendance of patients. This is more evident in the Dangme East District where people utilize the services far less than those in the Ga District with distance being one of the major influential factors. The

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evidence further supports the key findings that income and distance show the highest impact on utilization of services. The study also had the additional advantage of examining the variables in their spatial dimension (rural-urban) in a simultaneous perspective. This is a major contribution to knowledge in the area of accessibility and utilization of primary health care services.

Both qualitative and quantitative data were collected. The main research instruments were questionnaire, interview, focus group discussions and personal observation. Three districts, the Ga District, especially, its capital, Amasaman, representing urban and the Dangme West and Dangme East Districts representing the typical rural settings, were used. This has afforded a basis for spatial analysis. Sampling tools included systematic, stratification and simple random.

The main findings of the research are indicated as:

(a) The health conditions of the study area are only a reflection of the conditions in sub-Saharan Africa. Over 45 per cent of the health problems in all the three districts was due to malaria. The most frequently reported diseases for the Ga District are malaria, acute headaches, diarrhoea and upper respiratory tract infections, whilst for Dangme West District, malaria, diarrhoea, acute headaches and bodily pains rheumatism, and for the Dangme East Districts, malaria, diarrhoea, acute headaches, bodily pains/rheumatism and hypertension were mentioned. Health facilities are generally inadequate, with a high concentration in the Accra-Tema metropolis, outside the study area. The Ga District, especially Amasaman, which is 23 kilometrres away from Accra has a better access to specialist care in the Korle Bu Teaching Hospital, 37 Military Hospital, and other public/private hospitals and clinics in Accra, outside the study area. The three districts

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have a health centre in each district capital with a medical assistant in attendant. Each District Health Management Team has a medical officer heading it. As at the time of the field survey, 2001, no district had a district hospital (Level C of the primary health care hierarchy). Village Health Workers, trained specifically to take care of community clinics at level A of the Primary Health Care services had vacated their post and were operating as itinerant injectionists/quack doctors (Agyepong, 1999). Out of 20 VHWs for example trained in the Dangme West District, only 2 of them are still serving in their local communities. A health Centre built by World Vision in Pediatorkope to cater for the islanders in the Volta Lake area is operating as a community clinic because no medical assistant/officer is ready to stay on the island to man the health centre.

b) The work load factor is quite high for health providers in all the three districts. The medical assistants, nurses and attendants, especially in the district health centres at Amasaman, Dodowa and Ada are overworked.

c) In all three districts, the capitals have a health centre each which is under great pressure and congestion. In the Ga District, Amasaman is the centre for health activities in the district. Ada and Dodowa play such a role in their respective districts.

d) The regularity of attendance to the primary health centres and community clinics is rather low. About 20.2 per cent of respondents attend health centres for attention regularly. There is a spatial disparity, with 25.8 per cent of respondents in the Ga District attend regularly, as against 19.4 per cent of those in the Dangme West District and 11.9 percent of those in the Dangme East District, respectively. More males than females attend regularly. A greater proportion of patients than non-patients utilize health services more regularly.

e) Income and distance were the variables that showed the highest influence on utilization of health services. The effects of travel time, age and employment were statistically not

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significant. Transport cost exhibited a positive relationship with utilization of health services for the total sample.

f) Though waiting time and service cost have negative effects on utilization, their impact was lower than income and distance.

g) The impact of distance is stronger for the Dangme East District than for the Dangme West and Ga Districts. Service cost had an impact on all three districts, especially the Dangme East District.

h) Income and distance have relatively high impact on utilization than all other variables for all respondents, patients and non-patients. The impact of income and distance was greater on patients than non-patients in the utilization of primary health services, especially the health centres at the district capitals (Amasaman, Ada and Dodowa). Service cost had a greater impact on non-patients than patients in the use of health facilities. Education made a weak positive impact on non-patients, but made no impact on patients in the use of health services. Whereas age has a negative impact on patients in utilization, it had a positive effect on non-patients. For all the groups studied for this survey, it is on patients that sex statistically has a negative effect in utilization.

i) Respondents who fail to attend the health centres and community clinics when sick use herbal medicine most of the time. Fifty percent of the population in the study area resort to self-medication, a very dangerous health care strategy and a serious act of drug abuse. Thirty one percent use traditional or herbal medicine.

j) Private/Mission hospitals such as the Battor Catholic Hospital receive the greatest patronage by respondents in the Dangme West and Dangme East Districts, especially because of quality of service and pleasant attitude of the medical and paramedical staff.

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This study has shown that income and distance are the most important physical accessibility problem affecting utilization. Income and cost of service rank high among the obstacles of utilization of health services. Most respondents use the nearest community clinic or health centres in their place of residence, especially after attempts at using traditional herbal medicine or self-medication with orthodox medicine had failed in curing them of their ailment. The Pediatorkope case (a health center actually operating as a community clinic) is exceptional because of the absence of a medical assistant there.

Hypotheses Validation

Income shows a positive relationship with utilization, whilst service cost exhibits a negative relationship to validate the hypotheses. Income makes a stronger impact than distance, service cost and waiting time. Education exhibits a weak association with utilization.

Justification of the Framework

The results justify the conceptual framework used for the study (Fig 1.3). Patients' predisposing and enabling characteristics affect their use of health services. The poor use the services less than the rich, while the educated utilize services more than the illiterate. The significant difference among the levels of education was however, not as significant as for income, distance, service cost and waiting time. Financial constraints have been identified as a major socio-economic obstacle to utilization. Initiation of health care is influenced by the status of education and income. Structural barriers like government policy on cost of service also affect the patient – controlled factor of initiation and use of health care.

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The socio-economic factor of income has emerged as the most important factor affecting utilization. Income has been observed as the most important factor, alongside distance and cost of service. This study confirms studies by several researchers in the developing world. Respondents responded that the status of a disease would determine the swiftness with which they move to the health facility for treatment, and that serious cases will be taken to hospitals outside the districts, irrespective of the accessibility hindrance. The volume and distribution of resources influence the level of accessibility. The level of effective accessibility in the Ga District where its closeness to Accra, the national capital, gives it an advantage of a greater volume of health facilities than at the Dangme West and Dangme East Districts where Battor in the Volta Region, and Tema are closer but have less health facilities, compared with Accra. This is reflected in the higher utilization of health facilities by the dwellers in the Ga District, especially Amasaman, compared with those living in the Dangme West and Dangme East Districts, respectively.

9.3 CONCLUSIONS

Health is a prerequisite for development. It is an end of development and a vehicle for achieving development. Rural residents utilize health services more regularly than their urban counterparts, whilst patients utilize health services more than non-patients. The poor accessibility of the people to health services is a factor that has affected their health. The factors that have affected the services are poverty, long distances, high service cost, long waiting time at the health facilities, transport cost and low education, following in an order of importance. Where as poverty (income), distance and waiting time are predominant factors in the rural-urban Ga District, long distances, poverty (income), service cost and long waiting time are the predominant factors in the pure rural Dangme West and Dangme East Districts. Whilst patients are more affected by the factor of

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waiting time more than non-patients, non-patients are affected by the income factor more than patients.

To reduce the problem of poor accessibility and utilization calls for pragramatic and aggressive policies of poverty alleviation, the eradication of ignorance in terms of awareness of health conditions and the eradication of illiteracy, and improvement in health facilities. Health facilities and access roads in the rural areas where utilization is low must be improved. Credit facilities must be made available to private and mission health systems, which have higher patronage, to develop their health institutions. Three factors however come out clearly in the rural urban utilization problems. These are poverty and time for the urban area, and poverty and distance for the rural. Therefore improvement in the facilities and personnel of the health centres to reduce waiting time and measures to reduce poverty to ensure the financial capacity to utilize health facilities should be the main concerns of policy makers and health providers. Measures to reduce the distance factor and improvement in formal education should be considered in ensuring effective utilize of health services.

Finally, in addressing the problem of access and utilization of primary health care services, an integrated approach to development is called for. This should not be seen as an isolated problem, but should interrelate with other development issues such as good drinking water, good nutrition, good hygienic practices, a sound healthy environment so as to ensure a balanced and sustainable development. Such measures would ensure vibrant health, through adequate patronage of primary health care services, and the enjoyment of a better standard of living.

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9.4 RECOMMENDATIONS

Given the status of the economy and the financial constraints, the following recommendations are made to ensure effective use of health facilities, and to promote sound health that is a goal and an end of development:

(a) Primary Health Care must be emphasized, especially in deprived rural areas. More funds for basic health services means better health care could reach greater proportion of the population. Primary health care facilities, under the care of trained nurses, must be provided within 10-kilometre radius. Most patients are prepared to cover 5 kilometres to hospital by motorized transport. At this level, the community must be fully involved.

(b) Health education programmes must be intensified. Communities must be educated to embrace preventive medicine, have access to promotive facilities like potable water, ensure personal and environmental hygiene.

(c) Facilities in existing health facilities and access roads must be improved, rather than putting up new hospitals and clinics that are more expensive, and that the economy cannot bear in the short run.

(d) Efforts must be made to integrate scientific medicine with traditional medicine that is readily available.

(e) Girl-child education must be intensified, given that women bear the greater burden of caring for their children in health facilities, and given that education, as a factor, improves access to hospitals.

(f) District Assemblies must make conscious efforts to apply the poverty alleviation funds effectively to ensure poverty reduction, hence empower the population to utilize health facilities.

(g) Adequate personnel must be employed at the health facilities to ensure speedy rendering of health services, to reduce the time patients spend in health centers. Discipline

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must be enforced, especially in public hospitals, to ensure that personnel discharge their duties creditably.

(h) Since high cost of service has been a burning factor in utilization, a National Health Insurance Scheme, with government subsidy, must be structured

The following research areas are recommended, in efforts to have greater insight into the access – utilization problem:

a) Health Insurance and utilization pattern. Health Insurance has been found to have a positive impact on utilization of health services. An examination of the health insurance and utilization can help in the development of Ghana's Health Insurance Scheme.

b) Assessing the impact of traditional medicine on utilization among rural communities. Since traditional medicine is embedded in the rural culture, its utilization is more likely to be much higher. It can pivot a policy on herbal medicine.

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REFERENCES

Aase, A, (1996). Towards a methodology for regional welfare planning. In *Norsk Geografisk Tidskrift* Vol. 45, No.4, 213-221.

Ababio, B. (1986). National Conference on Population and National Reconstruction. University of Ghana, Legon. Vol. 2: Contributed Papers. Maternal and Child Health Family Planning Services and the PHC programme in Ghana.

Abugri, B.A (1995). Health Care Delivery Strategies in Ghana: A Study of Accessibility and Utilisation in the West Mamprusi District of the Northern Region (Unpublished Mphil, NTNU, Trondheim, Norway.

Acheampong, S.O. (1998). Inculturation and African Religion; Indigenous and Western approaches to medical practice. American University Studies. Peter Lang Publicating, Inc, New York.

Acton, J.P. (1975). Non-monetary factors in the demand for Medical Services. *J. Polit. Econ.* 85, 595-614.

Acton, J.P. (1976). Demand for Health Care among the urban with specific emphasis on the role of time. In, Rosette, R. The Role of Health Insurance in the Health Services Sector, New York: National Bureau of Economic Research.

Aday, L.A. and Anderson R (1974). A framework for the Study of access to medical care. *Health Services Research* 9:208-20.

Adibo, M. (1986). Population growth and access to health facilities. National Conference on Population and Nation Reconstruction. Contributed paper.

Adjei, S. (1989). Ways in which the design and delivery of health services may influence uptake: methods of enquiry. *Journal of Health Transition Methods and Measures*. Vol. 29, Pg. 197.

Adjei, S. (1984). Review on PHC in Ghana, MOH Accra.

Agyei-Mensah, S. (1997). Fertility change in a time and space perspective: Lessons from three Ghanaian settlements. Published Ph.D Thesis, NTNU, Trondheim Norway.

Agyepong, I.A and Marfo. E.K. (1992). Is there a place for community based health workers in PHC delivery in Ghana? Internal evaluation of the Dangme West District Village Health Worker Programme MOH Ghana/UNICEF Ghana, Unpublished.

Agyepong, I.A and Manderson L. (1994). The diagnosis and management of fever at the household level in the Greater Accra Region, Ghana. *Acta Tropical 58*:317-30.

Agyepong, I.A. (1999). Reforming health service delivery at district level in Ghana: The perspective of a District medical officer. Oxford University Press.

University of Ghana http://ugspace.ug.edu.gh

Airhihenbuwa, C.O. (1995). Health and Culture Beyond the Western Paradigm Sage Publications, California, USA (pp. 45-49.

Akerele,S (1987). The best of both worlds. Bringing traditional Medicine up to date *Social Science and Medicine*. Vol. 24, No. 2, pp. 177-181.

Akin J.S., Guilkey D.K, Griffin C.C and Popkin B.M (1985). The demand for primary health care services. Rowman and Allan held, Totowa, New Jersey, U.S.A.

Amin,R ; Chowdhury, S.A; Kamal, G.M and Chowdhury, J. (1989). Community health services and health care utilization in rural Bangladesh. *Social Science and Medicine*,29(12). Pp.137-145

Amonoo-Lartson, R (1991). Preventable maternal morbidity and mortality in the Ashanti, Western and Eastern Regions of Ghana – a situation analysis.

Amonoo-Lartson, R. (1984). District Health Care. Macmillan Press Ltd.

Amonoo-Lartson, R; Ebrahim, G.J; Lovel T.P.and Ranken,S (1984). District Health Care-Challenges for planning, organization and evaluation in Developing Countries.

Andersen R.A.(1968). Behavioural, Model of families use of Health Services. Research Services No. 25. Centre for Health Administration Studies. University of Chicago, USA.

Andersen, R.A and Newman,J.F(1973). Societal and individual determinants of medical care utilisation in the United States. *Milbank Memorial Fund quarterly*. 81(Winter):95-123.

Andy, T.C (1990), The Utilisation of a primary health care centre on an isolated Island – Cecia, Fiji. *Central African Journal of Medicine*,Vol. 36.

Ansah E.K; Gyapong J.O; Agyepong, I.A and Evans, D.B, (2001). Improving adherence to malaria treatment for children ; the use of pre-packed chloroquine tablets vs Chloroquine syrup. *Tropical Medicine and International Health*. 6: pp.496-504.

Anyinam, C.A. (1987). Availability, accessibility, acceptability, adaptability: four attributes of African ethno-medicine *Social Science and Medicine*. Vol.25, pp.803-811.

Anyinam, C.A. (1989). The Social Cost of the I.M.F's Adjust programme for poverty of Health Care development in Ghana. *Int. Journal of Health Services* Vol. 19(3), pp.531-547.

Arhinful, W (2001). National Health Insurance in Ghana *Health Policy and Planning* 18. pp.77-85.

Ardayfio-Schandorf .E. (1994). Household Headship and Women's earnings in Ghana. In Family and Development in Ghana, Edited by Elizabeth Ardayfio-Schandorf.

University of Ghana http://ugspace.ug.edu.gh

Atim, C (1999). Social Movements and health insurance: a critical evaluation of voluntary, non-profit Insurance Schemes with case studies from Ghana and Cameroon. *Social Science and Medicine* 48 (7) 1pp.859-975.

Aday, L.A; Andersen, R and Fleming, G.V (1980). Health Care in the U.S. Equitable for whom? Beverley Hills, Califernia, Sage.

Attanapola, C.T. (2000). The Use of Health-Care Services for curative purposes by rural people in Sri Lanka: Problem of availability, accessibility, and unequal distribution in health-care services. (Unpublished Mphil. Thesis. NTNU-Trondheim, Norway).

Audibert. M, and Mathonnat. J (2000). Cost recovery in Mauritania: initial lessons. *Health policy and Planning* 15:66-75.

Awumbila, M. and Momsen, J.H. (1995). Gender and the Environment : Women's Time use as a measure of Environmental Change. *Global Environmental Change*, Vol.5. No.4, pp.337-346.

Awusabo-Asare, K; Kendie, S.B, and Abane, A.M. (1997). Preliminary Environmental Impact Assessment (EIA) of the new regional hospital, Cape-Coast, Environmental Protection Agency, Accra (Revised Report).

Awusabo-Asare. K, (1980). Estimating fertility and childhood mortality for the Western Region of Ghana from pregnancy history data. Master of Arts of Degree in Demography. Australian National University.

Bailey, W. and Phillips, D.R. (1990), Spatial Patterns of Use of Health Services in the Kingston Metropolitan Area, Jamaica. *Social science and medicine* 30 (1): pp. 1-12.

Bannerman, R.H; Burton J and Ch'en W.C (1983). Traditional Medicine and health care coverage. Geneva, WHO.

Beauchesne, D. and Mundel, D. (1977). Determinants of Utilization of Children's Health Services. In *Harvard Child Health Project, Vol. 111.* Developing a better health system for children. Cambridge, Mass. Balinger.

Benneh,G ; Nabila., J.S; Songsore, J; Yankson, P.W.K. and Teklu,T (eds) (1990). Demographic Studies and final Projections for Accra Metropolitan Assembly (AMA), final Report, HABITAT/Accra Planning and Development Programme, Accra.

Benneh, G; Nabila J.S; Amuzu , A.T; Tutu, K.A and Yangyuoru (1993). Environmental Problems and the urban Household in the Greater Accra Metropolitan Area. (G.A.M.A.) – Ghana.

Benyoussef, A and Wessen, A.F. (1976). Utilization of health services in developing countries – Tunsia . *Social Science and Medicine*. Vol.8; pp.287-305.

Berman, P.A. (1986). Who uses what and why: Linking Utilization research with national health programmes. Use of rural health services, Asian Development Bank; p.395-402.

University of Ghana http://ugspace.ug.edu.gh

Berman, P; Ormond, A.B and Gani,A (1987). Treatment use and expenditure of curative centre in rural Indonesia. *Health Policy and Planning*, Vol. 2, (4). Pp.289-3000.

Bhattacharya, R.D and Tandon, J. (1991). Managerial gaps in the delivery of antenatal care services in a rural area of Varanasi. *Indian Journal of Public Health*, Vol.35. pp.113-116.

Blas E, Limbambala M.E. (2002). User payment, Decentralization and health Services Utilization in Zambia. *Health Policy and Planning* 16 (Suppl. 2): 19-28.

Bloom, G and Shenglan T. (2000). Rural health prepayment schemes in China; towards a more active role for government. *Social Science and Medicine*, 48 (7).

Boateng A (1990). A poverty profile for Ghana, 1987-1988. Washington D.C. World Bank, SDA Working Paper. No. 5, 1990.

Brakohiapa, L. (1998). Nutritional Status of Infants in some selected Communities in the Greater Accra Region of Ghana. Unpublished PhD. Thesis (Department of Nutrition and Food Science), Legon, University of Ghana.

Brannen, J. (1992). Combining qualitative and quantitative approaches; An overview. In *Mixing Methods: Qualitative and Quantitative methods*: Edited by Brannen, J (1992). Thomas Coram Research Unit, Institute of Education. Aveburg Publicatio.

Britwum, R.B. (1994). The cost of sustaining Ghana's 'Cash and Carry' system of health care financing at a rural health center. *West Africa Journal of Medicine*. 8:46-49.

Buor,D (1988). Population Growth and its implications for health care delivery system in Ashanti. Unpublished Mphil Thesis. University of Ghana, Legon.

Buor, D (2001). Accessibility and Utilization of Health Services in the Ashanti Region: A case study of Kumasi metropolis and Ejusu Juaben District. (Unpublished) Doctorate Thesis. University of Ghana, Legon.

Buor, D (2002). Distance as a predominant factor in the utilization of health services in the Kumasi Metropolis, Ghana. In an International Journal on Human Geography and Environmental Sciences. *Geo Journal*. 56(2): 145-157.

Buor, D (2003). Analyzing the primacy of distance in the utilization of health services in the Ahafo-Ano South district in Ghana. In *Journal Health Planning and Management* 18:293-311.

Caldwell, J.C (1986). Routes to low mortality in poor countries. *Population and Development Review*. Vol. 12. pp. 171-220.

Caldwell, J.C; Gajanayake; I; Caldwell P & Peirs, I (1989), Sensitisation to illness and risk of death: An explanation for Sri Lanka's approach to good health for all. *Social Science and Medicine*, Vol.28, No.4, 11 365-379.

University of Ghana http://ugspace.ug.edu.gh

Caldwell. J.C (1989). Mass education as a determinant of mortality decline. In, Caldwell, J.C. and Santa, G (eds). Selected readings in the cultural, social and behaviour determinants of health. Canberrra: Australia National University. Pp. 101-111.

Carr-Hill, Roy A. (1994), Efficiency and equity implications of the health care reforms. *Social Science and Medicine* Vol. 39, No.9, pp. 1189-1201.

Carrin, G., Ron. A, Huiy, Hong W, Tuohong Z, Licheng. Z, Shuo. Z, Yide. Y, Jiaying C, and Quicheng, N (2000). The reform of the cooperative medical system in the People's Republic of China: interim experience in 14 pilot countries. *Health Policy and Planning* 20

Cecil, H (1984). Culture, Health and Illness, Bristol, John Wright and Sons Ltd, The Stonebridge Press, pp. 46,50.

Chavanduka, G.L. (1994). Traditional Medicine in Modern Zimbabwe. University of Zimbabwe, Harare.

Chawla. M and Ellis R.P. (2000). The impact of financing and quality changes on health care demand in Niger. *Health Policy and Planning* 15:76-84.

Chen L.M, Wen S.W, Li G. Y(2001). The impact of national health insurance on the utilization of health care services by pregnant women. The Case in Taiwan. *Maternal and Child Health Journal*. 5(1): 35-42.

Chernichovsky, D and Meesok, O. (1986): 'Utilization of health services in Indonesia', *Social Science and Medicine*, Vol. 23, No. 6, pp. 611-620.

Chinweizu, J, O and Madubuike, I (1983). Toward the decolonization of African Literature: Vol. 1. Africa, fiction and poetry and their critics. Washington, D.C.

Cole, A.D and Grossman, M (1976). Determinants of Pediatric Care Utilization. *Journal on Human Resources*. Vol.13, pp. 115-158.

Coppo, L. (1992). "Perceived morbidity and health behaviour in a Dogon Community"; Social Science and Medicine, Vol.34, No. 11, pp. 1227-1235.

Criel. B, Vander Stuyft. P, and Van Lerberghe. W (2000). The Bwamanda Hospital Insurance Scheme: effective for whom? A study of its impact on hospital utilization patterns. *Social Science and Medicine 48*, (7), pp. 859-975.

Daily Graphic (2002). Hospital complex not functioning, Dec, 5, Graphic Corporation

Delvin, and Yap, Monita T, (1993). Structural Adjustment Programmes and the UNCED agenda: explaining the contradictions.

Desmet, M. Chowdhury, and Islam K. (1999). The potential for social mobilization in Bangladesh: the organization and functioning of two health insurance schemes. *Social Science and Medicine*, Vol.48, 7, pp.859-975.

University of Ghana http://ugspace.ug.edu.gh

Dhungel, B. and Dias, H.D. (1988). Planning for Rural Health Services in Nepal Third *World Planning Review ID* (3): pp. 239-254.

Demographic Health Survey (1993). GDHS, Ghana Statistical Service, Accra.

District Health Management Team, Ministry of Health, Ada (2001). Annual Report, Dangme East District.

District Health Management Team, Ministry of Health , Amasaman (2000). Annual Report, Ga District.

District Health Management Team, Ministry of Health, Dodowa (2001). Annual Report, District Health Services (1998)

Diamenu, S.K. (1992). What health services do the people want? Guide to improving current level of health services in developing countries. Unpublished Dissertation. Nuffield Institute, University of Leeds, U.K.

Dickson, K.B and Benneh G (1988). A New Geography of Ghana. London; Longmans.

Dovlo, D, Boohene. A, Ntow. S, Matemara, B, Attipoe, D., and Ankrah. A.V, (1992). "What does the public want from us? "Research Report on a study of User Satisfaction with services in government health facilities in the Eastern Region of Ghana, Ministry of Health, Eastern Region. Koforidua, Ghana.

Donabedian, A (1980). The Definition of Quality and Approaches to its Assessment, Vol. 1, Ann Arbor, MI, Health Administration Press.

Dujardin, B. Claryssse, G. Criel, B, De Bronmere, V, Wangata, N (1995). The Strategy of risk approach in antenatal care: evaluation of the referral compliance. *Social Science and Medicine*. 40 (4). Pp. 529-35.

Dutton, D. (1986.). Financial, organizational and professional factors affecting health care utilization, *Social Science and Medicine*, Vol. 23: pp. 721-7356.

Eades, C.A, Brace, C, Osei, L & LaGuardia, K.A. (1993). "Traditional birth attendants and Maternal mortality in Ghana" ; *Social Science and Medicine*, Vol. 36, No. 11, pp.1503-1507.

Easmon, F (1970). A report of the committee appointed to investigate the health needs of Ghana (Ministry of Health).

Ensor, T, Pham-Bich-San (1996). Access and payment for a health care: The poor of Northern Vietnam. *International Journal of Health Planning and Management*, 11 (1). Pp. 69-83.

Ensor, T. (1999). Developing health insurance in transitional Asia. *Social Science and Medicine 48* (7) pp. 877-869.

University of Ghana http://ugspace.ug.edu.gh

Fendall, R (1995). Myths and Misconceptions in primary health care. *Third World Planning Review*, 7, (4), pp. 307-22.

Fasehun; F (1999). The antibacterial paradox: essential drugs, effectiveness and cost, *Bulletin of the World Health Organization*. 77:211-16.

Fiah, B.K. (2001). Accessibility and Utilization of Primary Health Care in the Dangme West District. Unpublished Mphil Thesis. University of Ghana.

Foets, M; Berghmons, F; and Janssens, (1985). The Primary Health Care in the Belgium: A Survey on the Utilization of health services. *Social Science and Medicine*, Vol. 20, pp. 181-190.

Forbes, J (1964). Mapping Accessibility; *Scottish Geographical Magazine 80*, pp. 12-21.

Fosu, G. B. (1994). " Childhood morbidity and health service utilization: cross-national comparisons of user related factors from DHS data"; *Social Science and Medicine*, Vol. 38, No. 9, pp. 1209-1220.

Fredericksen, H (1964). Maintenance of Malarial Eradication; Duplicated Report WHO/Mal/429, Geneva, pp.246.

Freund, P.J. (1986). Health Care in a declining economy: The case of Zambia Social *Science and Medicine* 23:875-88.

Gaisie, S (1986). Culture and health in Sub-Saharan Africa. Journal of Health Transition. Vol. 2; pp. 66-69.

Ga District Assembly (1998). Annual Report on Ga District Assembly.

Ghana Demographic and Health Survey (1998). GDHS, Ghana Statistical Services, Accra

Ghana Demographic and Health Survey (2003). GDHS, Ghana Statistical Services, Accra.

Ghana Living Standards Survey (1991). Ghana Statistical Service, Accra.

Ghana Living Standards Survey (1992).
Ghana Statistical Service, Accra.

Ghana Living Standards Survey (1999). Ghana Statistical Services, Accra.

Ghana Statistical Service (1960). Ghana Population Census Report.

Ghana Statistical Service (1970). Ghana Population Census Report.

Ghana Statistical Service (1984). Population Census Report.

Ghana Statistical Service (2000). Population Census Report.

University of Ghana http://ugspace.ug.edu.gh

Ghana Statistical Service (1993). Ghana Demographic and Health Survey, Calverton, Maryland. USA.

Ghana Statistical Services. (1960). Population Census Report, Accra.

Ghana Statistical Services (1970). Population Census Report, Accra.

Ghana Statistical Services (1984). Population Census Report, Accra.

Ghana Statistical Services (1987). 1984 Population Census of Ghana. Preliminary Report. The Gazetteer, Vol.1, Accra. Pp. 57, 79.

Ghana Statistical Services (1994). Population Census Report Accra

Gibben, B, 1992. Do access factors affect utilization of general practitioner services in Southern Aackland? *New Zealand Medical Journal*. 105 (945).

Girt, J.L. (1973). Distance to general medical practice and its effects on revealed ill-health in a rural environment, *Canadian Geographer*. 17.pp. 154-66.

Good, C.M. (1987). Ethno-medical systems in Africa; Patterns of traditional medicine in rural and urban Kenya"; New York, The Guilford Press, pp.89-90.

Gould, P.R. and Leinbarch, T.R. (1966). An approach to the Geographical Assignment of Health Services, *Tijdschrift Voor Economische en Sociale Geografie 57*.

Gross,P.F (1972). Urban Health Disorders: Spatial Analysis and the Economics of Health Facility Location: *International Journal of Health Services 2*: New York: Baywood Co. Inc. pp. 63-84.

Grossman, M (1975). The Correlation between health and schooling. In Terleckyi, N.E (ed) House production and consumption, New York.

Haran, D; Igbal, M and Dovlo, D (1993). Patient's perceptions of the quality of care in hospital outpatient departments a quality assurance project in the Eastern Region, Ghana. Quality and its applications. University of Newcastle Upon – Tyne,U.K.

Harpan, T. (1988). In *the Shadow of the city: Community Health and the Urban Poor*; Oxford: Oxford University Press.

Hays, M.S, Kearns, A.R and Moran, W. (1990). Spatial patterns of attendance at general Practitioner services. *Social Science and Medicine 31*. (7): 773-781

Hours, B (1986) L'etat Sorcier: Sante Publique et Societe au Cameroun, Paris, Harmattan

Hennekins, C.H and Buring, J.E. (1987). Epidemiology in Medicine: Sherry L. Mayrent (ed). Boston: Little, Brown and Co. p.102, 317.

University of Ghana http://ugspace.ug.edu.gh

Hyma, B and Ramesh, A (1994). Traditional Medicine: Its extent and potential for Incorporation into modern national health systems. In Philips. David R, and Yola Verhasselt: Health and Development. Routdge Publication.

Jeppsson A, Okuonzi S.A. (2000). Vertical or holistic decentralization? Experiences from Zambia and Uganda. International Journal of Health Planning and Management 15:273-89. John Wiley and Sons, New York.

Joseph, A.E and Phillips, D.R. (1984). Accessibility and Utilization: geographical perspectives on health care delivery London, Harper and Row.

Joseph, A.E and Coloutier, DS. (1990). A framework for modelling the consumption of health service by the elderly; *Social Science and Medicine*, Vol. 30, No.1, pp.45-52.

Keskimaki, I., Salanto, M and Aro, S. (1995). Socio-economic equity in finish hospital care in relation to need. *Social Science and Medicine*, Vol. 41, No.1, pp.425-431.

Key, P.Y (1987). Women, health and development, with special reference to Indian Women. Health Policy Planning, Vol. 12, No.1 pp.58-69.

King, M and Jolly, R (1966). The Organization of Health Services, In: King Maurice (ed). Medical Care in Developing countries, Nairobi: Oxford University Press, pp.26-27.

Kleinman, A, Eisenberg, L. and Good, B (1978). Culture, Illness and Care: Clinical Lessons from Anthropologic and Cross-Cultural Research, Am. Intern. Med. 88; pp.251-258.

Kloss, H. (1990). Utilization of selected hospitals, health stations in central, southern and western Ethiopia; *Social Science and Medicine*, Vol. 31, No. 2, pp. 101-114.

Kofie, R. (2000). A GIS perspective of local level planning and decision-making: The case of spatial data integration, health and sanitation in the Ga District of Ghana. University of Ghana. (Unpublished PhD thesis).

Kofie, R.Y and Lasse Moller – Jensen (2001). Towards a framework for delineating sub-districts for Primary Health Care administration in rural Ghana: a case study using GIS. *Norwegian Journal of Geography 55* (1): 26-33

Kon-Kyun Ro, (1972). "Patient Characteristics, Hospital Characteristics and Hospital Use": Funchs, V.R. (ed.), Essays in the Economic of Health and Medical Care. National Bureau of Economic Research, New York.

Kroeger, A (1983). Anthropological and Socio-Medical Health Care Research in Developing Countries, *Journal of Social Science and Medicine* 17(3). pp. 147-161.

Kumaranayake, L, Watts. C. (2000). Moderating discussions on the web: opportunities, challenges and lessons learned. *Health Policy and Planning*, Vol. 15, No. 1 pp. 116-118.

Kutzin, J (1995). Experience with organizational and financing reform of the Health Sector. SHS Paper 8. Geneva: World Health Organization.

University of Ghana http://ugspace.ug.edu.gh

Lahaye, J.P. (1989). The influence of an abrupt price increase on health service utilization: evidence from Zaire; *Health Policy and Planning*, Vo. 4 No. 1: 76-81.

Lane, S and Meleis, A.I (1991). Roles, work, health perception and health resources of women; A study in an Egyptian delta hamlet; *Social Science and Medicine*, Vol. 33, No.10, pp. 1197-1208.

Lasker, J.N. (1981). Choosing among therapies: Illness behaviour in the Ivory Coast. *Social Science and Medicine*, 15A:157-68.

Launs, L (1989). Integrated Medicine – a challenge to the health care system. *Acta Sociologca*, 32, 237-251.

Leslie, C.M (1980). Medical pluralism in world perspective. *Social Science and Medicine* 14B, 191-195.

Leslie, C.M. (1976). Pluralism and integration in the Indian and Chinese Medical Systems. *In Landy* 1977, pp.511-517.

Lui, T.C, Chen C.S, Chen L.M. (2002). The impact of National Health Insurance on neonatal care use and childhood vaccination in Taiwan. *Health Policy and Planning Journal*. Vol. 17, No. 4. pp.43-45.

London, L and Bachman, O.M (1997). Paediatric utilization of a community health centre: Predictor of Level of care used by children from Khayelitsha, Cape Town. *South African Medical Journal*, 87 (1). pp. 67-69.

Marrow, R.H. (1983). A PHC Strategy for Ghana. *In Practicing Health for all.* Edited by Morley. D, pp. 272-298, Oxford University Press.

McDowell, A (1996). Research Methods in urban regional analysis. Paper presented at a postgraduate seminar, Oslo.

McKinlay, J.B, McKinlay, S.M. and Beaglehole, R. (1989). Measures on recent mortality and morbidity in the United States. *International Journal of Health Services 19* (2) pp. 181 – 208.

McKinlay, J.B. (1972). Some approaches and problems in the study of the use of services. *Journal of Health and Social behaviour* Vol. 13; pp.115 – 152.

Meade, M. (1988), Medical Geography, University of North Carolina at Chapel Hill, The Guilford Press, New York London.

Meise, U, Kemmler, G, Kurz, M, Rossler, W (1996). Quality location as a principle in psychiatric health care planning. *Gesundheistswesen*. 58 (suppl.) pp. 29-37.

Melinda, S., Meade, J, Florin, W, Gester, W (1984). Medical Geography. New York/London: The Guilford Press, P.8.

University of Ghana http://ugspace.ug.edu.gh

Mensah, C.M. (1997) : An Evaluation of the Expanded Programme on immunization In the New Juaben District of the Eastern Region of Ghana. (Unpublished) MPHIL Thesis, University of Ghana, Legon.

Mensah-Quainoo, E (1997). Determinants of Buruli Ulcer disease in the Ga District. A project report submitted to the school of Public Health, University of Ghana, pp. 14-17.

Mensah, B, Lentzner, H. and Preston, S (1985), Socio-economic differentials in child mortality in developing countries. (United Nations Department of International Economics and Social Affairs), New York.

Mensch, B. (1983) – Quality of care: a neglected dimension; in M. Koblinsky, J. Tinyan and D.J. Gay (eds), *The Health of Women*. A Global Perspective, Oxford: West View Press: 235-253.

Mesa-Lago, C (1985). Health care Costa Rica: Boom and Crisis. *Journal of Social Science and Medicine* 21 (1), pp. 13-21.

Miller, J.B. Milakovich. M. (1991). Improving access to health care through total quality Management. *Quality assurance utilization review*. 6(4). Pp. 138-141.

Ministry of Health (1984), Annual Report, Accra.

Ministry of Health (1989), Annual Report.

Ministry of Health (2000), Annual Report Dangme West District, Dodowa.

Ministry of Health/Ghana Service (1998), The Health Sector in Ghana, facts and figures.

Ministry of Health (Ashanti Region), 2000, Annual Report 1999, Kumasi. P6. 42, 49.

Ministry of Health (1977), Annual Health Report, 1976.

Ministry (1994), Annual Report 1993, Greater Accra Region, Accra.

Ministry of Health (1998), Annual Report 1997, Greater Accra Region, Accra.

Ministry of Health (1999), Annual Report 1998, Greater Accra Region, Accra.

Ministry of Health (2000), Annual Report 1999, Ada.

Ministry of Health (2000), Annual Report 1999, Greater Accra Region, Accra.

Ministry of Health (2000) Annual Report 1999, Dodowa.

Ministry of Health (2002), Annual Report 2001, Greater Accra Region, Accra.

Moseley, M.J. (1979). Accessibility: The rural challenge London. Metheun.

University of Ghana http://ugspace.ug.edu.gh

Musgrove, P (2000). A critical review of "A Critical Review": The methodology of (1993) World Development Report, investing in Health" *Health Policy and Planning*, Vol. 15, No.1, pp.110-115).

National Centre For Health Statistics (1997). NCHS, Medical Care of Acute Conditions, U.S.A. Series 10, No. 129.

Nabila, J.S. (1989), Population growth, distribution and health services in Northern Region of Ghana. Paper presented at International Conference on planning for growth and development in Africa. ISSER, UNDP, Accra.

Newbold, K.B; Eyles, J and Birch, S. (1995): Equity in health care: Meteorological contribution to the analysis of hospital utilization within Canada: *Social Science and Medicine*, Vol. 40, No. 9, pp. 118-11192.

Ofosu-Armah, V. (1983). National experiences in the use of Community health workers: A review of current issues and problems. Geneva, WHO (WHO offset Publication No.71).

Ojanuga, D.N, and Gilbert, C. (1992). Women's access to health care in developing Countries. *Social Science and Medicine*. 35 (4). Pg. 613-17.

Okafor, F.C. (1984). Accessibility to General Hospitals in Rural Bendel State, Nigeria. *Social Science and Medicine*. 188), pp. 661-66.

Okafor, S.I. (1983). Factors affecting frequency of hospital trips among a predominantly rural population. *Social Science and Medicine* 17, pp. 591-95.

Okojie, C.e. (1994). Gener inequalities of health in the Third World; *Social Science and Medicine*, Vol. 39, pp. 1237-1247.

Omorodion, F.I (1993). The social-cultural context of health behavior among Esan communities, Edo State, Nigeria; *Health Transition Review*, Vol. 3, No.2, pp.1125-1136.

Oppong, J.R, Hodgson M.J. (1994). Spatial accessibility to health care in Suhum District, Ghana. *The Professional Geographer*. 46 (2): 199-209.

Osei, C (1990). A study of maternal health practices and utilization of maternal care facilities among women of child bearing age in Suhum, Ghana. Unpublished dissertation. Department of Community Health, University of Ghana Medical School.

Peters, D.H and Becker, S. (1991). Quality of care assessment of public and private outpatient clinics in Metro Cebu, the Philippines; *Int. Journal of Health Planning and Management*, Vol. 6. No. 4; 273-286.

Pecoul, B; Chirac, P; Troniller, P and Pinel, J (1999). Access to essential drugs in poor Countries: A lost battle? *Journal of the American Medical Association*. 281-361-7.

Phillips, D.R (1981). Contemporary issues in the Geography of Health Care, Norwich, Norfolk, Geo. Books.

University of Ghana http://ugspace.ug.edu.gh

Phillips, D.R. (1986). The Demand for and Utilization of Health Services. In: Pacione, M. (ed). Medical Geography: Progress and Prospects, London: Groom Helm, 200-247.

Phillips, D.R. (1990). Health and Health Care in the Third World. John Wiley and Sons, New York.

Pickett, G and Hanlon, J. (1990). Public Health Administration and Practice, St. Louis Times Mirror/Mosby College Publishing, pp.541 and 542.

Poland, B.D, Taylor S.M and Hayes, M.V (1990). The ecology of health services utilization in Grenada, West Indies. *Social Science and Medicine* 30 (1. pp.13-24.

Pillsbury, B. (1990). Immunization. The Behaviour issues in Child survival programmes: Monograph No. 3. *Int. Health and Development Associates*, California.

Piperno, Aldo and Orio, Ferdinando Di (1990. Social differences in health and utilization of health services in Italy: *Social Science and Medicine*, Vol. 31, No.3, pp.305-312.

Pyle, G.F. and Lauer B.F. (1975). Comparing Spatial Configurations: Hospital Service and disease rates, *Economic Geography*. Vol. 5. pp.47-53.

Pyle, G.F. (1974). Applied Medical Geography. Wiley. New York. *Health Policy and Planning* Vol.1, pp.99-108.

Raghupathy, S. (1996). Education and the use of maternal health care in Thailand. *Social Science and Medicine*, 43 (4). Pp.58-63.

Ramachandran, H and Shastri, G.H. (1983). Movement for medical treatment: A study in Contact patterns of a rural population: *Social Science and Medicine*, Vol. 17, No.3, pp. 177-187.

Republic of Ghana (1992). Population Planning for National Progress and Prosperity. Ghana Population Policy.

Ridedel, D.C and Fitzpatrick, T.B. (1964), Patterns of Patient Care. Ann Arbor, Michigan .University of Michigan Press.

Ron, A. (2000). NGOs in Community health insurance schemes: examples from Guatemala and the Philippines. *Social Science and Medicine* 48 (7), pp. 939-950.

Rosenstock I.M. (1960). What research on motivation suggests for public health. American Journal of Public Health

Sharpson, M.J (1972). "Uneven Geographical Distribution of Medical Care – A Ghanaian Case Study. *Journal of Development Studies*. Vol. 8, (21), p. 210.

Sanders, D. (1985). "Community Involvement in solving local health problems" In *Social Science and Medicine*. Vol. 15a. pp.169-174.

University of Ghana http://ugspace.ug.edu.gh

Santow, G. (1995). Social roles and physical health: the case of female disadvantaged in poor countries. *Social Science and medicine.* 40 (2).

Saueborn, R., Noughtara, A; Oepen, C; and Diesfeld, H.J. (1989). Assessment of MCH Services offered by professional and community health workers in the district of Solenzlo, Burkina Fasso. *Journal of Tropical Paediatrics.* Vol. 35, supplement. 1:2-9.

Schweitzer, S.O. (1974). Incentives and the Consumption of preventive health care services. In, Mushkin, S.J., Consumer Incentives for Health Care, New York: Prodish.

Sein,T (1983). Utilization of rural health Centres in Burma, Rangoon.

Shannon,G; Garry, W; Rashid, L; Bashshur, C and Metzner,A (1969). The Concept of Distance as a factor in Accessibility and Utilization of Health." *Medical Care Review* Vol. 26. pp. 143-161.

Sintonen, H and Malihjaden, T (1995). Explaining the utilization of dental care: experiences from the dental market. *Health Economics.* 4 (6) pp. 453-66.

Sira, B.Z. (1996). The function of the Professional's Affective Behaviour in Client. Satisfaction: A revised approach to Social Interaction Theory, *Journal of Health and Social Behaviour* 17. pp. 33-11.

Sikkerveer, L.J. (1982). Rural health development in Ethiopia: Problem of utilization of traditional healers: *Social Science and Medicine*, Vol. 16, No. 21, pp. 1859-1872.

Smith, D.M. (1977). Human Geography; A Welfare Approach; Reprinted 1979.

Smith, D.M. (1979). Where the grass is greener: Living in an unequal world. Harmondsworth, Penguin.

Sowa, N.K. (1993). The impact of Structural Adjustment on the population of Africa: The implication for education, health and employment Ghana. Aderanti Adepoju (ed.) London, UMFPA.

Stanton, B and Clemens, J (1989). User fees for health care in developing countries: A case study of Bangladesh; *Social Science and Medicine.* Vol. 29, No. 10, pp. 1199-1205.

Stock, R. (1987). Understanding Health Care Behaviour: A model together with evidence from Nigeria: In Qakhar, R. *Health and Disease in Tropical Africa*, London: Harwood, (ed). Pp. 279-292.

Stock, R (1993). Distance and the utilization of health facilities in rural Nigeria. *Social Science and Medicine* 17 pp. 563-70.

Stock, R. (1987). Health Care for Some: A Nigeria Study of who gets what, where and why? *International Journal Health Services* 15 (3).

University of Ghana http://ugspace.ug.edu.gh

Suchman, E.A. (1966). Health Orientation and Medical Care, *American Journal of Public Health* 56, pp. 99-105.

Supakankunti, S (2000). Future prospects of voluntary health insurance in Thailand. *Health Policy and Planning*, Vol. 15, No.1 pp. 85-94.

Swenson, I.E; Thang, N.M; Nhan, V.Q and Tieu, P.X, (1993). Factors related to the utilization Of pre-natal care in Vietnam. *Journal of Tropical Medicine and hygiene.* 96 (2). Pp. 76-85.

Takyi, C.N; Amamua-Mensah. J; Mensah, V, J; Djan, P; Bonama, K and Dwamena E (1993). A study into Factors influencing utilization of Health Services in Gomoa District. Research Report, Ministry of Health, Central Region Cape – Coast, Ghana, pp. V-X.

Tangcharoensathien. V, Supachutikul. A, and Lertiendumrong, J (1999). The Social Security Scheme in Thailand: What lessons can be drawn? *Social Science and Medicine*, 48 (7) pp. 859-975.

Tinyan, D and Gay, J. (1999). The Health of Women. A Global Perspective, Oxford: West View Press: 235-253.

Tipping, G & Segal, M (1995). Health care seeking behaviour in developing countries: An annotated bibliography and Literature Review; Development Bibliography 12, Health Unit Institute of Development Studies, University of Sussex.

Town and Country Planning Department, (1996). Kumasi Metropolitan Assembly, Kumasi Metropolitan Assembly, Kumasi Metropolitan Health Directorate, 1995 Annual Health Report p.5.

Tsey, K (1997). Traditional medicine in contemporary Ghana: A public policy analysis; *Social Science and Medicine*, Vol. 45, No.7, pp. 1065-1074.

Twene, R (1990). The effect of increases in hospital fees and rising cost of drugs on hospital attendance. Unpublished Dissertation, Department of Nursing, University of Ghana.

Twumasi, P.A (1998). Social Foundation of the interplay between traditional and modern systems. Inaugural Lecture, Univ. of Ghana, Legon.

Twumasi, P.A. (1981). Community Involvement in Solving Local Health Problems. Social Science Medicine Vol. 15 pp. 169-174.

UNESCO (1980). Population Education in health, Regional office for Education in Asia and Oceania, Bangkok, pp.309.

UNICEF (1984). Strategy for Childern, Oxford Press, New York.

UNICEF, (1990). State of the World's Children, Oxford Press New York.

UNICEF, 2002. State of the World's Children. Oxford Press, New York.

University of Ghana http://ugspace.ug.edu.gh

Van der Geest, S; Macwan'gi, M; Kanwanga, J; Mulikelela, D; Mazimba, A and Mwangelwa, M. (2000). User fees and drugs: What did the health reforms in Zambia achieve? *Health Policy and Planning*, Vol. 15, No. 11, pp. 59-65.

Vlassoff, C (1994). Gender inequalities in health in the Third World: uncharted ground: *Social Science and Medicine*, Vol. 39, No. 9, pp. 1249-1259.

Waddington, C. and Enyimayew, K.A. (1989). "A price to pay: The impact of user charges in Ashanti-Akim District, Ghana", *International Journal of Health Planning and Management*, Vol. 4. No. 1: 17-47.

Waddington, C and Enyimayew, K.A. (1990). A price to pay, Part 2: The impact of user fees in the Volta Region of Ghana. *International Journal Health Planning and Management* 5; 287-312.

Warren, D.M. (1979). Bono traditional healers. In African Therapeutic Systems (Edited by Ademuwagun Z.A. et al) Crossroads Press, Walthan, Mass. *Bulletin of World Health Organization*, 74 (2).

WHO (1978). The Promotion and Development of Traditional Medicine. *WHO Technical Report Series* No. 622, WHO, Geneva.

WHO (1981). WHO Technical Committee: Global Strategy for Health for all by the Year 2000. WHO, Geneva 1981.

WHO (1985). Targets for Health for All, Geneva.

WHO (1998). Life in the 21st Century: A Vision for all", Report of the Direction General. WHO, Geneva.

WHO/UNICEF (1978). Primary Health Care, Alma Ata Conference. Geneva and New York.

Wolinsky, F.D and Marder, W.D. (1983). Waiting to see the doctor: The impact of organizational structure on medical practice. *Medical Care, Vol. 21*; pg. 531-542.

Wong, E.L;Popkin, B.M; Guilkey, D.K and Akin, J.S. (1987). "Accessibility, Quality of Care and Pre-natal Care Use in the Philippines," In, *Social Science and Medicine 24* (11).

World Bank (1984). A World Bank Country Study (Ghana), Washington D.C.

World Bank, (1997). World Development Indicators pp. 78, 86.

World Bank, (2000). World Development Indicators pp. 90-106.

World Health Organisation (1978). Alma Ata, 1978: PHC, WHO, Geneva.

World Health Organisation (1979). The Promotion and Development of Traditional Medicine.

University of Ghana http://ugspace.ug.edu.gh

World Health Organization (1997). WHO joins battle against a new emerging disease; Buruli Ulcer. Press Release, Geneva (http:www/vigt/inf-pr 1997).

Wyke, S; Hunter, K and Ford, G (1998). Gender differences in consulting a general practitioner for Sympto& ms of minor illness: *Social Science and Medicine*, Vol 46, No.7. Pg. 901-906.

Wyss, K; Whiting, D; Kilina, P; Mclarty, D.G; Mtasina, O; Tanner, M and Loven Z, N (1996). Utilization... and private heath services in Dar es Saleem. *East Africa Medical Journal*. 73. (6).

Yamey, G. (2000). Africa heads of state promise action against malaria - *British Medical Journal*, 320:122-8.

Yeomans, K.A. (1979). Statistics for the Social Scientist, New York: Penguin P. 1991.

Zwart, S. and Vooerhoeve W.A. (1990). Community Health and Hospital Attendance: A Case Study of Rural Ghana. *Social Science and Medicine 31* (7), pp. 771-718.

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APPENDIX I

DEPARTMENT OF GEOGRAPHY
UNIVERSITY OF GHANA – LEGON

Confidential information to be used for research purposes only.
Individual questionnaire for indepth interview on the accessibility and utilization of Primary Health care in the Greater Accra Region.

Heads of Households or their spouses

District: ....

Town/Village..............................

Interviewer: .... Date: ....

Section A: Personal Information

1. Sex: 1. Male 2. Female

3. Age: ....

4. Marital Status: a. Single b. Married c Consensual union D. Divorced
   e. Separated f. Widowed.

5. Religious Affiliation. a. Catholic b. Methodist c. Anglican d. Presbyterian
   e. Pentecostal f. Spiritualist g. Other Christian h. Moslem i. Traditionalist
   j. No religion.

6. Ethnicity: a. Ga Adangbe b. Akan c. Ewe d. Guan
   e. Grussi f. Mole-Dagbani g. Hausa h. other, please specify.......... ...

7. Educational attainment. A. None b. Primary. C. Middle/JSS d. SSS/Commercial/Vocational/Technical e. Postsec/Nursing/Polytechnic
   e. University f. Others specify ....

8. Education attainment of your spouse. A. None b. Primary cc. Middle/JSS
   e. SSS/Commercial/Vocation/Technical e. Postsec/Nursing/Polytechnic
   e. University f. Others specify...

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9. What are your main and minor profession?

Profession	Main	Minor
a. Farmer		
b. Fisherfolk		
c. Teacher		
d. Nurse		
e. Tailor/Seamstress		
f. Clerk/Typist/Secretary		
g. Trading		
h. Homemaker/Housewife		
i. No Occupation		
j. Others, Please specify..		

9b. What is the occupation of your spouse? (See 8)

10. State the approximate number of years you have in this main profession............

11. Have you changed your job/profession or lost your job within the past 10-15 years? 1. Yes 2. No

12. If you have ever lost your job indicate how long you have remained unemployed and how you managed to survive...

13. If you have changed your jobs, why did you do so?

....

14. Total income per day/week/month... ..

15. Does your household use the follow items.

a. Electricity
b. Radio
c. Television
d. Video

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16. Do you or any member of your household own the following items? a House

    b. Car. C. Fishing boat. D. Fishing Net e. Tractor f. Motorcycle

    g. Bicycle.

17. When you are old and no longer working, how do you intend to support yourself?

    a. Personal savings b. Remittances from children

    c. Social Security and Pension d. End of service award

    e. Cannot tell f. God will provide. G. Others, Please specify......

18. Are there any self-help or development programmes (co-operatives) going on in your community? 1. Yes. 2. No.

18b. If yes, are you involved in any of these programmes? 1. Yes 2. No.

Section B: Housing and Environmental Situation

19. What type of house do you live in now? a. Compound b. Flat c. Quarters/Bungalow. D. Others, Please specify ....

20. Who owns the house? A. Own house b. Family house c. Rented House

    d. Others, Please specify ....

21. Give the total number of people who usually live in with you now?

    (Include your house-help if any)...

22. How many rooms do you use in your house (exclude kitchen, store, bathroom)

    ....

23. Type of building materials used for the house in which you are staying?

    a. Cement (sandcrete) b. Land crete c. Ata Kpame (mud)

    d. Other, Please specify ....

24. Main materials used for roofing the house. A. Grass or thatch b. Sheets or asbestos

    c. Tilesd. Concrete e. Other, please specify...

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25. Type of lighting. A. Electricity b. Lamps c. Candle d. No Electricity

    e. Other, please specify.. ....

26. Type of water supply used for drinking.

    a. Pipe water piped into residence b. Pipe water piped into yard compound.

    c. Public tap/neighbour's house pipe water d. Well water (public) e. Borehole

    f. Surface water (spring, river, stream) g. rain water h. Tanker water

    i. Bottle water j. Other, specify........................... ....

27. How do you store your drinking water? a. Open containers b. Barrels

    c. Storage tanks d. Refrigerators.

    e. Other, please specify ....

28. What problem do you face with your water supply system? ....

29. Type of toilet/latrine. A. Flush toilet own WC b. Shared WC c. Pit latrine

    d. Kumasi Ventilated Improved pit (KVIP) e. Bucket/pan latrine f . No. facility (bush/field/beach).

30. Presence of flies in Kitchen and toilets 1. Yes 2. No.

31. Rodent problem 1. Yes 2. No

32. Do you use insecticides for controlling household insects, eg. Mosquitoes?

    1. Yes No No.

33. If yes, name the insecticide used.. .

34. Location of cooking place. A Open kitchen b. Private Kitchen

35. What type of fuel/energy do you household use for cooking? a. Gas

    b. Electricity c. Charcoal d. Firewood.

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Section C: Health Seeking Behaviours

36. Where do you normally go for treatment when you are unwell? ....

37. Who takes the decision to take a child to the health center? ... .

38.a Who immunization/vaccination did your child/children receive from the nurses?

38b. What diseases disturb your children? ....

39. Have you ever been hospitalized before? 1. Yes 2.No

40. If Yes, when, for what ailment and for how long?

Date (year)....................ailment.................Duration ....

41. What other diseases disturb you? ....

42. What do you consider to be the major health problem in your area and why?

....

43. Have you heard of the disease called AIDS? 1. Yes 2. No

44. From which sources of information or persons have you heard about AIDS in the last six months? a. Radio b. TV. C. Newspaper d. Health worker c. Community meetings f. Pamphlets/Posters g. Friends/relatives h. Other, please specify...

45. Has the presence of AIDS affected your sexual relations? 1. Yes 2. No.

45b. If Yes, in what ways? ....

46a. Do you use contraceptives? 1. Yes 2. No

46b. If yes, mention the method you use..

Section E: Accessibility and Utilisation of Health Service

47. How far is the nearest health facility from you house? a. Less than one mile 1-12 miles c. 3-4 miles d. 5 or more miles.

48. How do you rate the cost of health services at the facility?

a. Very expensive b. Moderate c. Reasonable d. Cheap

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49. What is the major factor that constitute a constraint to you as far as the utilization of facilities at the health center is concerned.a. Distance b. Finance c. Ignorance

    d. Waiting for long hours to receive care e. Cultural beliefs.

    f. Other, please specify ....

50. How much money has your household spent on health service chemical/drug spiritualist, prayer groups in the past month?...

51. Has there been a visit to the center this past six months?

    1. Yes 2. No.

52. How do you get to the health center? a. By walking b. By bicycle

    c. boat d. By taxi e. By trotro.

    f. Other please specify ....

53. How long does it take you go get to the health center?

    a. .... Minutes b. .... hours

54. How long do you have to wait before you see the doctor/medical assistant?

55. Do health service providers honour their schedule to your community?

    1. Yes 2. No.

56. Do often do the health service providers visit your community?

    a. Once a week b. twice a week c. once a month.

    d. Other, please specify ....

57. How is information on health programmes communicated to the community?

    By .... a. Mobile van b. Poster c. Radio d. Gong-gong better

    e. TV f. Other, please specify).

Thank you.

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APPENDIX II

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Individual questionnaire for indepth interview on the Accessibility and utilization of Primary Health Care in the Greater Accra Region.

Patients at the Health Facilities

District .... Town/Village ....

Interviewer: .... Date: ....

Section A: Personal Information

1. Sex: 1. Male 2. Female

3. Age: ....

4. Marital Status: a. Single b. Married c. Consensual union. D. Divorced
   e. Separated f. Widowed.

5. Religious Affiliation. a. Catholic b. Methodist c. Anglican d. Presbyterian
   e. Pentecostal f. Spiritualist g. Other Christian h. Moslem i. Traditionalist
   j. No religion.

6. Ethnicity: a. Ga Adangbe b. Akan c. Ewe d. Guan
   e. Grussi f. Mole-Dagbani g. Hausa h. other, please specify.............

7. Educational attainment. A. None b. Primary. C. Middle/JSS d. SSS/Commercial/Vocational/Technical e. Postsec/Nursing/Polytechnic
   e. University f. Others specify ....

8. Education attainment of your spouse. A. None b. Primary cc. Middle/JSS
   e. SSS/Commercial/Vocation/Technical e. Postsec/Nursing/Polytechnic
   e. University f. Others specify..

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9. What are your main and minor profession?

Profession	Main	Minor
k. Farmer		
l. Fisherfolk		
m. Teacher		
n. Nurse		
o. Tailor/Seamstress		
p. Clerk/Typist/Secretary		
q. Trading		
r. Homemaker/Housewife		
s. No Occupation		
t. Others, Please specify…………………………………………………………		

9b. What is the occupation of your spouse? (See 8)

9b. What is your total income per day/week/month?……………………………………………

Section B: Health Seeking Behaviour

10. Apart from this place where else do you go for treatment when you are unwell.

1. Government hospitals/clinic 2. Private hospital/clinic

3. Mission hospital 4. health center 5. Church 6. Prayer Group or garden. 7. Traditional herbalist.

11. Do you sometimes practice self-medication? 1. Yes. 2. No.

11b. If Yes, what exactly do you do?………………………………………………………

12. Do you consult chemical or drug sellers and herbalist when you or your spouse/children is sick? 1. Yes. 2. No.

12b. If Yes, what do they do before they give you some drugs/herbs? ……………………

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13. What ailment brought you to this place? ....

14. How long has this ailment persisted?..

15. What other ailments disturb you? ....

16. At home, what type of water do you drink? 1. Piped water 2. Well water

    3. bore hole 4. river/stream 5. tanker water.

    6. Other, please specify ....

17. Type of toilet/latrine. 1. Flush toilet/own WC 2. Shared WC 3. Pit latrine

    4. Kumasi Ventilated improved pit (KVID) 5. Bucket/pan latrine

    6. Bush/Field/Beach 8. Other, please specify ....

18. What type of fuel/energy do your household use for cooking?

    1. Gas 2. Electricity 3. Charcoal 4. Firewood

19. What do you consider to be the major health problem in your area and why?

    ....

20. Have you heard of the disease called AIDS? 1. Yes 2. No

21. From which sources of information or persons have you heard about AIDS in the last six months?

    1. Radio 2. TV. Newspaper 4. Health worker 5.Community meetings.

    6. Pamphlets/Posters 7. Friends/relatives

    8. Others, please specify ....

22. Has the presence of AIDS affected your sexual relations? 1. Yes 2. No

22b. If Yes, in what ways? ....

23. Do you use contraceptives? 1. Yes 2. No.

24. If Yes, mention the method you use?

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Section C. Accessibility and Utilization of Health Services

25. How far is the nearest health facility from your house? 1 Less than one km

    2. 1-2 km 3. 3-4 km 4. or more km

26. How do you rate the cost of health services at the facility?

    1. Very expensive 2. Moderate 3. Reasonable 4. Cheap

27. What amounts have you paid so far for the following services?

    1. Records .... 2. Consultation

    2. Laboratory .... 4. Drugs ....

28. What is the major factor that constitutes a constraint to you as far as the utilization of facilities at the health center is concerned? 1. Distance Finance 2. Ignorance

    4. Waiting for long hours to receive care. 5. Cultural beliefs.

    6. Other, please specify ....

29. How much money have you spent on health service chemical/drug sellers, spiritualist, prayer groups in the past month?...

30. How do you get to this health center? 1. By walking 2. By bicycle

    3. By boat 4. By taxi 5. By trotro.

    6. Other, please specify ....

31. What is the approximate transport cost from here too your house? ....

32. How many children do you have? ....

33. What are their ages? ....

34. Were they born: 1. at home 2. health center 3. TBA 4. Hospital

35. What diseases affected your children when they were very young?

36. What disease affects them now?

37. Did you immunize all your children against the six killer disease?

    1. Yes 2. No

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38. If No, why did you not do so? ....

39. What causes you to fall sick? 1. germs 2. poor food 3. poverty

4. witches 5. other, please specify ....

40. Which 3 of the following do you normally consult? 1. health center

2. self-medication 3. drug peddler 4. spiritualist 5. chemical seller 6. pharmacist 7. local herbalist

41. Do the doctors and nurses here treat you nicely?

1. Yes 2. No

42. Give reasons for your answer in 41 ....

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38. If No, why did you not do so? ....

39. What causes you to fall sick? 1. germs 2. poor food 3. poverty

4. witches 5. other, please specify ....

40. Which 3 of the following do you normally consult? 1. health center

2. self-medication 3. drug peddler 4. spiritualist 5. chemical seller 6. pharmacist 7. local herbalist

41. Do the doctors and nurses here treat you nicely?

1. Yes 2. No

42. Give reasons for your answer in 41 ....

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(b) Please explain your answer ....

15. What type of diseases do patients normally report at this health facility? ....

16. What is average daily attendance? ....

17. What kind of people normally patronize this place? 1 High income group

2. Medium income group 3. Low income group

18. Rank the category of patients (A-D) 1. Men. 2 Women 3. Children

4. Youth/Adolescents

19. In your estimation which of the following influence the patronage of the facility?

(Rank them a-f) 1. Easily accessible (In terms of distance and transportation).

2. Affordability (eg. Cost). 3. Quality and prompt services 4. Courteous staff

5. Availability of drugs 6. Other, please specify ....

19b. Do you incorporate the use of traditional medicine in your work?

1. Yes 2. No

20 How does tradition, ignorance and values conflict with PHC in this community?

21. Which of the following needs immediate attention? Rehabilitation of infrastructure 2. Mode of operation. 3. Equipment. 4. Transport and Communication. 5. Other, please specify ....

22. What logistic support do you need urgently? ....

23. What do you think will make your station a better place?

24. Do you have in-service training and refresher courses from time to time?

1. Yes 2. No

24b. Please explain your answer

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APPENDIX IV

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Interview schedule for Drug and Chemical Sellers?

1. What exactly is the nature of your work?
2. Have you had any formal of training? a. Yes b. No
3. If yes, where did you have the formal training? ....
4. How long have you been selling drugs?..
5b. What is the efficacy of the drug (ie does it heal very well)
6. Do you enjoy your work? a. Yes b. No

   Please explain your answer further...
7. What are some of the difficulties you face in your work?... ....
8. How much income do you generate in a day/week/month? ....
9. Do you go on outreach programmes? ....
10. What form of transportation do you normally use? ....
11. Do you sell traditional medicine (herbs, liquid form)? 1. Yes. 2. No.
12. Why do people patronize your drugs? ....
13. How can you compare your work to that of the worker at the health center?
14. Do you receive any help from the government? 1. Yes 2. No
15. Are you in any association? 1. Yes 2. No.
16. If Yes, what is the name? ....
17. When was it formed? ....
18. Who are the leaders? ....

    Thank you.

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APPENDIX VI

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Interview schedule for Community Leaders?

(Traditional and Religious Opinion).

1. What are your opinions about the orthodox health care in your community?

   ....

2. What alternative sources of health care do you have in your locality?

   ....

3. Which ones do you patronize and why? ....

4. Which ones do the majority of the people patronize and why?

   ....

5. What is the efficacy of treatment for orthodox medicine and also local traditional medicine?..

6. What do you think about user fees at the health facilities in your locality?

   ....

7. How can you describe the attitude of the health workers in your locality?

   ....

8. Are there any self-help or development programmes (cooperatives) going on in your area? a. Yes b. No.

9. If Yes, are you involved in any of these programmes?

10. How can the access to health service and their utilization be improved?

    ....

11. What do you think about this issue of Health Insurance? ....

12. How can the poor benefit from medical treatment? ....

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13. Can the rich help set up a fund to help the poor? 1. Yes No.

14. Do people patronize tradition medicine more than scientific medicine?

    1. Yes 2. No.

    Please explain your answer...

15. What can you personally do to help enhance the work of PHC in your community?...

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APPENDIX VII

December 5, 2002, Thursday. Daily Graphic

Hospital Complex not functioning

A lot of concerns have been raised over the long delay in opening the newly built Dangme East District Hospital for public use at Faithkope, Ada. The 60 bed ultra-modern facility which was completed in April this year by China National Cooperation for Overseas Economic Co-operation is not operating despite the procurement of drugs and other accessories. The Dangme East District Chief Executive, Mr., Kofi Plahar explained that the award of the contract for the construction of the hospital did not include staff accommodation. He said the district assembly has entered into negotiations with some landlords in the Big-Ada township to secure a temporary place for the staff and as and when they finalise the deal, the hospital will be commissioned. The MP of the area, Mr. Amos Buertey was reticent to comment on the issue.

But information gathered at the site revealed that the machines are deteriorating at a fast rate

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APPENDIX VIII

Thursday December 5, 2002.

Fight against measles launched Daily Graphic

A national mass measles immunization campaign was launched at Gbawe in Accra on December 4th with a call on parents to support the campaign to promote the health/growth of children.

President J.A. Kufuor said although significant progress has been made in the fight against measles, occasional outbreaks of he disease still leads to consequences such as blindness, malnutrition, and even death among children. The number of reported cases has reduced from 140,000 children cases in 1975 to 12,500 in 2001. We have made some progress in controlling the disease. Yet measles is still the leading cause of illness in Ghana among the diseases that can be prevented by vaccination.

Children are the future leaders of Ghana and bring so much joy into the lives of parents, for which reason the immunization of children against diseases is something that ought to receive the enthusiastic support of every body in our society" The Ministry of Health, Dr Kwaku Afriyie, appealed to adult males to lend a hand in this year's immunization by taking their children to the centers to be immunized.

Dr. Afriyie expressed his gratitude to the WHO, UNICEF, the Red Cross, the UN Foundation, the Japanese Government and the Centre for Diseases Control, USA for supporting the programme fighting hard to eradicate measles from Ghana.