

UNIVERSITY FOR DEVELOPMENT STUDIES

**ROLE OF COMMUNITY-BASED HEALTH PLANNING AND SERVICE (CHPS) IN
HEALTHCARE DELIVERY IN THE SANGNERIGU MUNICIPALITY**

BY

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Declaration

Candidate's Declaration

I hereby declare that this Thesis is as a results of my own original research and that no part of it has been presented for another degree in this University or elsewhere.

Date.....

Signature.....

Supervisors Declaration

I hereby declare that the preparation and presentation of this Thesis were supervised in accordance with the guidelines laid down by the University for Development Studies

Professor Juventus Benogle Ziem

Date.....

Signature.....



Dedication

I dedicate this research work to Almighty God for seeing me through the programme without hindrances.

I also dedicate it to my family for their patience during the program, Alenya Cynthia, Augustine, Francisca, Atawura, Awewura, Wedam, Wepia and Wekem for their support throughout the period.

And to My parants Mr. Wanti Gubiayeri and Madam Yaa Gbala for their continuous prayer for the family.



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Abstract

Effective Primary healthcare delivery is the key solution to most of the health problems of the majority of people in the world. It is the first point of call for most people with health problems in the communities and a gateway for public health interventions in Ghana. This makes it essential for periodic assessment to strengthen these systems over time to continue to perform this important role effectively.

It is on this bases the research was conducted to assess the role of CHPS in healthcare delivery in the Sangnarigu municipality.

Cross sectional research design was used, purposive and simple random sampling techniques were employed where 153 respondents were selected out of who 115 were nurses who worked in the CHPS zones, 6 sub- municipal leaders and 32 community members. Also two groups of questionnaires, one for the healthcare providers and a separate one for the community health volunteers were used to collect the data. The data was analyzed using SPSS version 21.

The ages of the healthcare providers vary from 20 to 44 years with females constituting 81.0% while that of the community members ranges from 30 years to 54 years with females constituting 71.9%.

Majority of the healthcare providers worked in the structured CHPS zones 81.8% (99) while 18.2% (22) worked in Non-structured CHPS zones but those who worked in the structured CHPS zones, 73.7% (73) lived in the communities while 26.3% (26) lived outside the communities.

The Scope of services rendered ranges from community mobilization, maternal and child welfare, mental health and treatment of minor ailment. The best service delivered was health education and the least was mental health as agreed by 98.3% and 52.1% of the healthcare providers respectively with the non-structured outperforming the structured with the range of the services provision scoring 100% in 10 of the scope of the services provided.

Overall, 80.2% (97) of health care professionals bemoan the effects of the rains on the healthcare delivery in their zones while 90.6% of the community volunteers affirmed the notion.

Rainfall, unmotorable roads, unsafe sources of drinking water, floods, unsafe places for outreach activities and incidence of snake-bites were some of the factors that affected healthcare delivery in the municipality.

There was however a disparity between healthcare providers' availability to the communities as reported by the healthcare providers to staff access as reported by community members.

To ameliorate these effects, the communities could help provide outreach structures for primary healthcare activities in their zones to reduce the truncating of the services during the rainy season.

The Sangnarigu municipal assembly is encouraged to extend pipe borne water to communities like Gbalahi, Gumani and kulaa to help prevent the seasonal landfill site contamination of drinking sources.

In conclusion, despite the numerous challenges, CHPS contribution to healthcare delivery in the municipality is generally good.



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List of Abbreviations

CHPS.....	Community based health planning and service
CHO.....	Community Health Officer
CHV.....	Community Health Volunteer
UHC.....	Universal Health Coverage
PHC.....	Primary Health Care
GHS.....	Ghana Health Service
MOH.....	Ministry of Health
AEFI.....	Adverse Effects Following Immunization
ANC.....	Antenatal Care
PNC.....	Postnatal Care
CHMC.....	Community Health Management Committee
WHO.....	World Health Organization
EPI.....	Expanded Programme on Immunization
DHMT.....	District Health Management Team
SMHT.....	Sub-Municipal Health Management Team
CHFP.....	Community Health and Family Planning
MCE.....	Municipal Chief Executive
HBM.....	Health Belief Model
DIT.....	Diffusion Of Innovation Theory
SPSS.....	Statistical Package For Social Sciences



CHAPTER ONE

1.1 Background

Community-based Health Planning and Service (CHPS) is Ghana's policy to provide vital primary healthcare in the communities. To guarantee evenhanded delivery of health services, the Ministry of Health (MOH), Ghana implemented the CHPS as a nationwide health policy with the aim of reducing hindrances to physical and geographical access to health care provision. For planning and governmental drives, the country is divided into sectors known as the CHPS zones. A CHPS zone is a defined geographical area of up to 5000 persons or 750 households in heavily populated areas and may be the same as Ghana's political electoral areas where feasible. A zone in most cases could be made up of a town, part of a town, or settlements arranged in such a way that planning of itinerant services and assignment of community health officers and community health volunteers would be very easy and convenient. The CHPS events at the local level requires the collaboration of the health sector and the communities as it encompasses all stakeholders, i.e. indigenous authority, political institution and the community members through community organization and effective participation.

1.2 Historical Perspective Of CHPS

Historically, the CHPS idea began in Ghana in 1988 as a Community Health and Family Planning (CHFP) mission grounded on the Bangladesh practices (Nyanator, Awoonor-williams, Phillips, Jones, & Miller, 2018). The project started in Navrongo in the Upper East Region of Ghana as an operational research in 1994 piloted in three sub-districts. The cell three which was very successful had the following components:

- A compound where the CHO lived and worked 24 hours in the CHPS zone and a place for ANC activities



- Trained CHO
- Community Health Volunteer (CHV)
- Community Health Management Committee (CHMC)
- Medical assistant who supervises the CHO and performs community entry, and organizes quarterly meetings in the CHPS zones.

In 1999, the CHPS policy was accepted as a nationwide approach to improve access, effectiveness and excellence of health care in Ghana (Asaah & Najim, 2017), (Ghana health sector Reforms, 1999). The geographical delineation for a CHPS zone was reformed in 2010 from size of population or unit committees to be in line with the Ghana's political electoral areas. This reduced significantly the CHPS zones from 5280 to 2840. Currently the number of CHPS Zones in Ghana is about 6,000 (GHS CHPS Policy, 2016), about 3,175 functional CHPS zones out of which 1,410 are functional CHPS compounds. The Sangharigu Municipality has 23 electoral areas, 18 functional CHPS zones out of which 12 have compounds and 6 without compounds (Sangharigu municipal health Annual Report, 2018).

1.3 Problem Statement

The Alma Ata declaration in 1978 engineered the importance of PHC as a vehicle for delivering health service to communities. Many countries developed their own policies and strategies in delivering the PHC in their countries; hence the CHPS policy in Ghana to carry out this service. The overall goals of the PHC are to meet peoples' health needs through health promotion, Protection, Prevention, Curative health care practices, rehabilitative and palliative healthcare. Another important aspect that it is meant to solve includes; social determinants of health such as socio-economic factors, environmental factors, individual characteristics, behavior and empowering the individuals, families and communities.



40years down the line, a lot still needs to be done in achieving universal health coverage in most parts of the world including the African continent. Astana declaration 2018, which envisages PHC as a tool to achieving UHC by 2030 would be a mirage if pragmatic steps and measures are not taking towards achieving this goal by nations.

In Ghana, about 52% of the population is engaged in Agriculture as their main occupation. This forms the greater part of the informal sector and majority of these people live in the rural areas (Ghana Statistical Service (GSS), 2013).Unfortunately, most of these people do not have access to basic health care services and social facilities. In communities, where some Health facilities or CHPS zones are functional, access to them is hindered by long distances, effects of the rainy season and poor road conditions. Other hindrances include, less time spent in the communities by health staffs and as a result they are unable to solve the communities' health needs as the policy envisaged.

The concept of the functional CHPS Defeats certain core components of the policy and appears to compromise the cell 3 which was very effective in delivering the primary health care to the communities when experimented in Navrongo (Awoonor, et al., 2005).The glaring reality of rural dwellers' poor access to health facilities and to reduce barriers to geographical access to health care prompted the Ghana Health Services to adopt the CHPS as a countrywide program to promote access, excellence and equitable services. The question remains whether the CHPS policy is delivering the core components of the PHC effectively? What possible factors are militating against the policy as far as the rewording to functional CHPS zones is concerned?

It is also important to examine the seasonal effects on this policy since we have structured and non-structured functional CHPS and most communities across the country are cut out during the rainy season.



Because of the above unanswered issues concerning functional CHPS as a primary healthcare policy in Ghana and Sangnarigu in particular, is the reason for this research in Sangnarigu Municipality of the Northern Region of Ghana to assess the role of CHPS in healthcare delivery in the Sangnarigu Municipality.

1.4 Research Questions

1.4.1 General Question

What is the role of CHPS in healthcare delivery in Sangnarigu Municipality?

1.4.2 Specific Questions

1. What is the scope of healthcare services rendered by CHPS in Sangnarigu municipality?
2. What are the effects of rainy season on the CHPS healthcare delivery in Sangnarigu Municipality?
3. What is the time access of the communities to the healthcare professional?
4. What factors affect the CHPS healthcare delivery in the Sangnarigu municipality?

1.5. Research Objectives

1.5.1 General Objective

To assess the role of CHPS in healthcare delivery in Sangnarigu Municipality.

1.5.2 Specific Objectives

1. To examine the scope of healthcare services rendered by CHPS in Sangnarigu municipality.
2. To assess the effects of the rainy season in the CHPS delivery of healthcare in the Sangnarigu Municipality
3. To determine the time access of the communities to the healthcare professional.
4. To assess factors that affect CHPS healthcare delivery in the Sangnarigu municipality.



1.6 Significance Of The Study

This research helps ascertain the role of CHPS concept to solving the health needs of the people. Issues like seasonal effects, time contact of health workers to the community members, factors that affect healthcare and the scope of services provided to the beneficiaries were assessed. It also offers better understanding of the CHPS policy and solutions to the above challenges.

Specifically, it addresses the following:

1. It serves as a knowledge base for healthcare institutions to formulate policy to improve on quality healthcare delivery to the communities and users of CHPS services across the municipality.
2. It's important to the administration and staff of the Sangnarigu Health Directorate and Municipal Assembly in planning and implementing the delivery of quality healthcare to their clients.
3. It is also of importance to the research department of Community Health and Family Medicine of the University for Development Studies as reference material for students and researchers who want to conduct studies in primary healthcare and CHPS in particular.

1.7 Organization Of The Study

The study is organized into six chapters. The first chapter contains the introduction, problem statement, research questions, the objectives of the study, rationale for the research work and the conceptual framework.

The second chapter consists of the literature review, theoretical foundations of the study.



The third Chapter is made up of the methodology: study type and design, description of the study area, sampling techniques, data collection tools, data collection procedure, data quality assurance, validity and reliability, ethical consideration, analysis plan and the limitation of the study.

The chapter five consists of the discussing of the results in the relation to other findings. This helps to draw conclusion of the study. This is where sense is made of the data at hand.

Lastly, the chapter six is about summary of the findings and the recommendations to inform policy direction of the role of CHPS to healthcare delivery.

1.8 Conceptual Framework

The central function of the CHPS in healthcare provision in Sangharigu municipality is affected directly by the effects of the rainy season and the contact hours of the community members to a healthcare provider. At the CHPS level, healthcare is provided in the realm of clinical and public health activities. Some of these services include nutrition, rehabilitation, surveillance, Obstetrics and Gynaecology, expanded programme in immunization, mental health, surgery, referrals, dentistry and family planning services.

The medical services include treatment of minor cases such malaria and diarrhea. Severe form of diseases detected is referred as soon as possibly to the next level of care. Referrals from CHPS usually go to the Health Centres as the next level of care but not so rigid a rule because depending on the case it could be referred directly to the district hospital. For example, an obstetric emergency detected by a midwife at the CHPS compound could be referred directly to the district hospital for immediate and appropriate management where surgical services are available.



Simple laboratory tests such as Rapid Diagnostic Tests for malaria and HIV are carried out at these levels.

Surveillance, health promotion, capacity building and treatment of nutritional cases are the main duties of the CHO so far as nutrition is concern and timely referral for in-patient care for severe nutritional problems((MOH), 2013)(National Nutrition Policy, 2017)(Truswell, 2006).

At the CHPS level, community management of mental illnesses is a key function. Cases diagnosed and put on treatment are monitored to assess their progress. CHPS staff also observes the effectiveness of treatment and adverse reaction of the drugs.

Identification of new cases and referral for confirmation at the psychiatry institutions, follow ups, home visits to clients, surveillance and referral to secondary mental health facilities are core duties of the CHO in psychiatry services provision(World Health Organization, 2018)(Funk, Saraceno, & Drew, 2008).

Surveillance is a continuous and systematic system put in place to check the diseases of public health importance. It is therefore the duty of the CHO and the community Health Volunteer to report and track any strange disease occurrences in their CHPS zones or communities for an appropriate action to be taken. Common diseases include but not limited to bacterial meningitis, Tuberculosis, Cholera, typhoid fever, yellow fever just to mention but few. It is also linked up to various other sources of data.

The vaccine preventable diseases such as Measles, Tuberculosis, Haemophilus Influenza type b (hib), pneumonia, Diphtheria, Tetanus, Pertussis, Hepatitis B and Poliomyelitis are prevented through immunizations of children of age between zero to fifty-nine months. Adverse reactions following immunizations, (AEFI) are recorded for all clients with side effects and reported for



prompt attention (comprehensive multi year plan for immunisation., 2017). They continue to offer education and promote the uptake of vaccinations in the communities by breaking the barriers of community myths and misconceptions about immunizations. Another important duty is the maintenance of the cold chain and injection safety practices.

The CHPS staffs also document the outcome of an intervention and monitor the effectiveness or otherwise of the interventions. This helps to track progress towards specified goals, monitor and clarify the epidemiology of health problems. It also helps in setting up priorities to inform public health policy and strategies.

The surgical and the dental aspects are also carried out in the communities by the CHOS and the community health volunteers. When a dental condition is detected in the community for example, cleft palate or cleft lip, the myth is demystified by the CHOS. The parents are given health education and offer feeding options for those who have feeding challenges. They are also given hope and reassurance. Besides they are offered solution to their problem by referring such cases to the dentist where these anomalies can be corrected without much problem.

Surgical cases like the hernias, hydrocele and acute abdomen are first reported to the CHO and the community health volunteer who further directs and refer them to the appropriate institutions for surgery to be performed for such clients.

For the central role that the CHPS occupies to be effective, the communities must have adequate access to the healthcare providers to access these services in the policy package. Without the staff access by the communities, most services cannot be rendered in a vacuum.

On this account, the numerous challenges and threats such as the heavy rains which truncates outreach services, flooding, unmotorable roads, faecal matter from open defecation into drinking sources and non-residency of health workers in the communities need urgent attention to



enhance the central role that the CHPS possess to alleviate pain, reduce complication and prevent outbreaks in our communities, homes and the country at large.

The conceptual framework is shown in the figure 1.1 with the relationship of the key activities of the CHPS concept.



The Conceptual Framework Of The CHPS

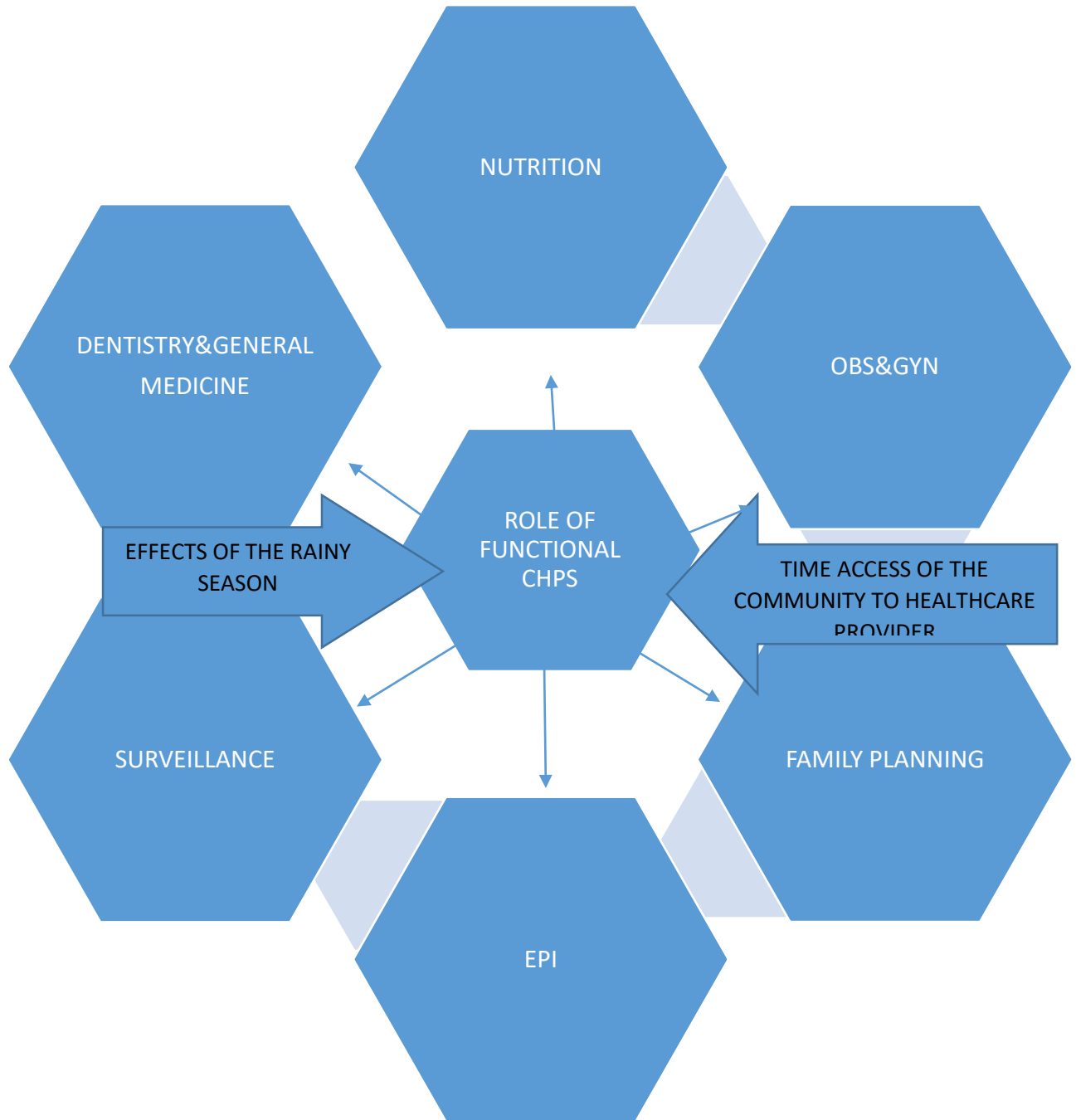


Figure 1.1The Conceptual Framework Of The CHPS



CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter consist of literature review on findings related to the research objectives. The first aspect deals with the theories underpinning the research work. These models are concerned with the principles of acceptability and utilization of preventive services, including initiation and scaling up of PHC services. Then the empirical literature review is on the concept of Primary Healthcare, Universal Health Coverage (UHC), the evolution of the PHC in Ghana, the genesis of the CHPS policy as the tool to delivering PHC and the factors affecting the effective implementation of the CHPS policy. These factors include the time access of a community to a healthcare provider, the scope of services the CHPS zones render and the effects of the rainy season on CHPS delivery of health services to the people in the communities.

2.1 Theoretical Framework

This research takes its roots from theories that support PHC and behavioral change since Primary healthcare deals with the modification of attitudes and behaviour of the individuals and the communities. It also concerned with the introduction of new ways of life and practices that the individual, the community and the households would have to adapt in order to effect the desire health behavioral change. In this vain, the following theoretical models have been deemed relevant and used in this study. The Health Belief Model (HBM) and the Diffusion of Innovation Theories (DIT).



2.3 The Health Belief Model

According to Raingruder, the HBM was developed in 1966 by Ilwin Rosentock while he was investigating why people sought or refuse a particular health service at the time but now the model has been extended to other areas of need such as health prevention, detection, health promotion, sexual risk behaviour and injury prevention. This makes it better placed for PHC activities. For an individual to fully accept a public health intervention, it is usually affected by two factors, the individual must feel susceptible to the disease with a serious consequence and must believe that the advantage of taking the preventive measures far outweighs the perceived barriers to the preventive measure (Individual-level models of health behavior Caitlin Kennedy, 2012). The individual's evaluation of the efficacy of engaging in a behavior change to decrease risk of disease makes him or her take part in the health promotion activities. (Onoruoiza, Musa, Umar, & Kunle, 2015). The theory states that, "people's beliefs about whether or not they are at risk for a disease or health problem, and their perceptions of the benefits of taking action to avoid it, influence their readiness to take action".

This applies directly in the health education and promotion activities in the CHPS zones and the Sub-municipal levels. When risk assessment about the health needs of the population within the catchment area is not done properly, the activities will barely elicit results when the target groups are ill defined. For instance, giving health education on benign prostate hypertrophy to a male teenage group will be given less attention than if it is given in the adult male group. The adult male group would perceive they are mostly at risk coupled with the evidence they see in their counterparts make them take decision about their health. This makes them give it the desire attention and take steps to prevent it better than the young group who feel there is still more time.



In in the field of service provision in the various communities, services uptake by the different category of residents will follow a pattern of the health belief model theory.

More compliance and uptake of the services will be seen in the at risk group than the group perceived not to be at risk.

In the same vain it will also affect the time access of a community to a healthcare provider. Low uptake of services has the tendency to discourage the healthcare provider to frequently come to the community whiles there is another community which equally needs the services and are patronizing his or her services.

The health belief model in effect, explains how people assess their health situation and their risk levels before they decide whether or not they should access health services or be part of health intervention. This informs us as health staff and policy makers not to lamp all services for all people but do risk assessment and get relatively at risk group to increase our service uptake and increase the healthcare providers time access to the communities.

Another theory of much significance in the study is the diffusion of innovation theory (DIT). This theory was developed by Emrogers in 1962. It is developed to explain how an idea or a product gains grounds and diffuses through a specific population. It explains how new ideas or a technology spreads over time in the population (Assumptions, 2003). The theory classifies the people receiving information into five adopters' categories. The Innovators, Early adopters, early majority, late majority and the laggards as the late receivers of the innovation.

According to him, the innovators are always at constant motion in bringing new things. It is applicable in the community level where the rate at which different categories of audience



understand and accept change varies, different strategies need to be developed for each category of the people.

It is also relevant because PHC is about constantly bringing new ways of doing things that impact health positively. These new ways of doing things would have to be communicated and diffused among the population to effect the desired change in attitude or behaviour. This theory affords us that opportunity to understand the various categories of audience and prepares one to devise strategies to get down to the groups of the audience to attain your objectives.

It therefore assists the health promoter and the public health official to do background checks to understand the category of the audience and devise appropriate techniques for each category (assumptions, 2003).

2.4 Primary Health Care

According to WHO ,2018 PHC is a societal approach to healthcare that aims at the necessities and choices of individuals, families, communities .This is also linked up with the health promotion, disease prevention , treatment, rehabilitation, palliative care and is easily accessible to the communities and the individuals at an affordable cost and efforts(WHO,2018)(Jindal, 2014). It further explained that PHC is an essential and affordable care that is accessible to everyone in the community, and includes health maintenance and education.

According to the Alma Atta declaration in 1978, PHC revolves largely around the following pillars to thrive, active community participation, inclusion of other sectors such as Agriculture, water and sanitation, educational sector, right technology in health service provision and effective health promotion and prevention activities(Alma Ata Declaration,1978).These key pillars of the primary healthcare remain very relevant today as they are still the main roots of our



health service problems in the world after over 40years of notice. Globally, mortality in rural West Africa is the highest in the world. To reduce this unfortunate situation in the African continent, we need to embrace fully the PHC concept and practice it effectively(WHO,2018).

According to WHO, 2018, there was only eight essential elements of PHC which included nutrition, health education and promotion, immunization, safe water, good sanitation needs, family planning, maternal and child health, treatment of minor ailments and provision of essential medicine to the communities. Even these basic packages are still not well covered in most countries including Ghana where safe water remains a challenge, open gutters, issue of poor drainage leading to cholera, Typhoid and diarrhea cases.

WHO 2013, in a document of arguing for health stated that, the ultimate objective of PHC is the full accessibility to quality health services. This includes; health promotion, prevention, treatment, rehabilitation and palliative care(Arguing for Universal Health Coverage, 2013).Quality Primary healthcare has not been so easily accessibly since it depends on variant factors including quality of the professional, technology, equipment and techniques of delivering the services. These factors in most cases cannot all be present, hence affecting the quality of Primary healthcare services. However, the African states owed it a duty to provide enabling healthcare environment where safety and high standards of practice are carried out to minimize complications.

Primary healthcare accessibility is a bedrock in determining healthcare utilization in health systems throughout out the world since it constitutes the first point of call where most people seek health service in times of health need(T.A., J., J.S., P., & M., 2013). This first level provides wide range of basic services majority need in order to stay healthy and prevent health challenges. In the Ghanaian health system, this entry points could be equated to the CHPS and the Health



Centres. Eventhough, there is no strict entry and end point in the Ghanaian health system, this promotes easy uptake of services at will and need from any provider closer to you. Both preventive and curative services exist at all the levels of care in an increasing skills order. For example, Family Planning services, EPI can all be conveniently accessed in the Teaching hospitals as well as the CHPS Compounds (Rc, 2003) (Care, 2008).

In China, the PHC is a very vibrant system that provides health service to the majority of the citizens. This system provided healthcare to 55% of outpatient clients and 18% admission cases in 2016(Li et al., 2017).

2.5 Components Of Primary Healthcare

Primary Healthcare stands on these core components to implement healthcare delivery to the populace. These core components include, comprehensive healthcare, social determinants of health and the community health empowerment.

2.6 Comprehensive Healthcare

According to Gabrielle etal, 2017, in a document of primary healthcare first, stated that PHC is all about extending healthcare services to the communities to meet adequately their health need. This is usually achieved by providing strong health preventive measures such strong routine health immunization activities, curative services in institutions with skilled personnel, rehabilitative and palliative care. Another area of importance to accomplish this objective is to provide these services to the people without risk of financial hardship(Gabrielle etal, 2017). The Comprehensive healthcare is therefore being able to render high standards healthcare packages of various category that meet the needs of clients at a very good cost that will not denial anyone access on the bases of finance. The countries all over the world need to have pro-poor healthcare policies to safe guard the citizenry (Gabiell etal,2017).



According to Andrade et al, 2015 explains comprehensiveness of healthcare as the coordination of health promotion, preventive measures and recovery. He noted these activities should be done in the confines of technical knowledge, actions and procedures within professional context(Andrade et al., 2015).

2.7 Social Determinants Of Health

Social determinants of health are viewed as the situations in our environment in which we are born, live, work, worship, learn and carry out daily activities which affects our health and quality of life outcomes(Social determinant of Health, 2017). These are activities that have an impact or possess risk or potential risk to the individual or community.

Again, it deals with the health determinants such as social, financial and ecological factors, as well as individual behaviour, policies and intersectoral collaborations. These includes, power, unemployment and cultural practices such as female Genital Mutilation, Trokosi practices and harmful funeral rites by some tribes in Ghana.

The Australians health research conducted in 2018, revealed that the people in the low economic brackets do not live longer than those in the high economic brackets. This is reflected in life expectancy gaps in Australia where people in the high economic brackets were found to live longer than those in the lower economic status(Australia ' s health Australia ' s health, 2018).

Social determinants of health have significant influence on our health seeking behaviour, affordability to quality healthcare, nutrition, housing, reduced anxiety and worries. This goes a long way to affect one's way of life, psychological stability and physical health.

Social determinant of health operates around social institutions such as the cultural and religious systems of the locality, economic and political structures which includes both traditional and the



modern political structures. These institutions work in harmony to produce good health or illness.

The surroundings to the individual such as neighborhood, workplaces, cities, drainage systems, water bodies, all produce health or illness. Flooding come as a result of poor drainage systems and water pollutes the drinking sources giving rise to cholera, typhoid and diarrhea cases.

Other important aspects of health include the social relationships, social networks, social status, and social groups. These determine how healthy one would be socially and that attaining social wellbeing in the process.

The health inequality is purely as a results of the unfairness and unequitable distribution of power, resources widens the access to quality social amenities such as healthcare, education, recreations which promotes healthy living(who commission on social determinanys of health, 2008).

2.8 Community Empowerment

Another major area is the empowering of the communities to take control of their health needs in order to optimize their health. A Well enlightened community would advocate for their rights to quality healthcare as well as good health policies that will promote and protect their well-being.

Brian etal in 2011 noted that, the community groups, organizations and the community systems produce better results in the community activities. The down-up approach offers an opportunity to perform wider public health activities whiles helps the top-down community engagements(Brian et al., 2011).

Empowering the citizens to gain knowledge and skills is very important as this will reduce over dependency of the citizens on healthcare professionals. They are better able to turn out cultural



sensitive programmes and activities, sustain these changes they create and easily involve the stakeholders with less or without extra cost in public health activities.

The opinion leaders such as the chiefs, Imams, Pastors, traditional healers, all play a key role in health activities and promotes community involvement, ownership and sustainability of health initiatives. With the involvement and empowerment of the communities and their leaders, the community capacity is built to promote health (What is the evidence on effectiveness of empowerment to improve health ?, 2006).

2.9 Principles Of Primary Healthcare

These are the strategies to attain health for the majority of the people in the world. Primary Healthcare rests on the following principles:

2.10 Universality Of Healthcare Delivery

The universality of healthcare stipulates that; majority of the people that may have a health need should be assured of coverage with the same basic set of PHC services. The Ghana's health system and practices are in in line with this provision. The EPI, Family Planning and Clinical care are for all Ghanaians of such health need. UHC lays more emphasis on access to comprehensive quality healthcare, including preventive, clinical and health promotive measures (Vega & Rockefeller, 2015) .As further noted by Jindal, Universal health coverage (UHC) attempts to provide diagnostic, and rehabilitative health care delivery without financial hardships to all the citizenry and extension of service delivery to remove access obstacles (Jindal, 2014)(Connell, Rasanathan, & Chopra, 2018). At the core of UHC, countries and communities need to determine which health services, of sufficient quality, need to be covered and identifying potential barriers to access(WHO,2017).Accessibility to PHC is a fundamental human right that every citizen must enjoy and not be limited to few privileged individuals.



2.11 Quality

According to Buttel et al 2007, Quality of healthcare delivery is simply the extent to which health services for individuals and populations increase the likelihood of desired health outcomes and meets current professional standards, expectations and needs of healthcare users (Buttall, Hendler, & Daley, 2007). Quality of healthcare therefore refers to the activities we perform on daily bases in the health sector to benefit our clients and patients without causing harm to them. These include usage of tried and tested, safe, affordable and believe to have no complications and tendencies of causing harm or death, neither disability nor illness. We need to practice healthcare delivery in accordance with the standard clinical guidelines, protocols and scientific evidenced based. PHC services are phased out in such a way that they are socially and culturally acceptable by the people and in consistent with scientific standards and clinical practice (Sub-districts, 2004).

2.12 Equity

According to the WHO in 2018, in their document vision for PHC in the 21st century stated financial burden should not be a barrier to PHC. It's noted that there should be initiatives to help the poor in the society to have access to PHC without financial stress (Vision for primary health care in the 21st century, 2018). In view of this, the Ghana's national health insurance policy has catered for the at risk groups like the aged, pregnant women, neonates, below 3 months and the postpartum periods. The premiums also charged by health insurance authority are in line with the principle of equity to ensure every Ghanaian can afford quality healthcare without running into catastrophic healthcare expenditure. According to Frenze and Vega, stated that in relation to equity in healthcare, it is a fundamental human rights of an individual that needs to be guided against. Everyone should have geographical and physical accessibility, devoid of social,



religious and racial discrimination(Frenz & Vega, 2010). Anna in 2001,also stressed on the accessibility of services on the bases of need to the communities and the individuals(Anna, 2001). Equity in healthcare delivery implies equal access to healthcare services available ,utilization for equal need, and equal quality of care for all(Equity of Access to health Services, 2001).

2.12 Efficiency Of Primary Healthcare

Bem in 2014,defines efficiency of healthcare as producing a given output with minimum quantities of inputs(Bem, 2014) . He further explained the need for the cost effective services provision at all stages of the health system, both at the unit of the healthcare service and the structure of the health system putting cost effectiveness, quality and universality in mind. Remove barriers to access and utilization of services.

According to Tia Aloysius, efficiency in PHC refers to maximizing the resources in the healthcare delivery without compromising the quality of the health delivery. This therefore implies that the ability of the CHPS zones to deliver high quality PHC in their CHPS zones with fewer logistics without compromising on quality of healthcare delivery but make judicious use of the available resources and minimizing wastages. The CHPS zones therefore deliver to their fullest capacities of PHC services to community members given the logistics requirement of every CHPS zones(Efficiency and Effectiveness of CHPS Zones in Primary healthcare, 2010).

2.13 Sustainability Of Primary Healthcare

Sustainability of healthcare depends on wide range of factors and strategies to achieve this objective.



The client needs must be considered first in all that we do as healthcare providers. And a broader, holistic client centered care that focus on prevention and follow -ups to achieve the optimum goal of wellbeing. The individuality of man is the bases of client centered care and its uniqueness in health needs. Holistic healthcare delivery prevents relapses and frequent attendance with the same health problems which exhaust the scarce and scanty resources.

The health staffs training and reorientation to PHC and provision of more accessible, personalized and affordable healthcare to the citizenry is another way to sustain quality healthcare delivery.

Another way to ensure healthcare sustainability is to implore the use of genomics in healthcare to achieve sustainable healthcare delivery since this will improve on the assessments of the risk levels, early detection, treatment and preventive measures(PWC, 2017).

Another key area that will enhance sustainability is the use of health technology to improve on efficiency and effectiveness of healthcare.

Technology in healthcare delivery is one of the tools used to reduce healthcare cost, effective monitoring and enhance sustainability. Mobile phones for instance can be used to do follow-ups on the clients with least cost to the client and the care provider.

Again, efficient machines for diagnosing and treatment of clients could significantly reduce healthcare cost and complications. These new trends of technology could be employed in the health sector by way of policy and regulation to ensure healthcare cost to clients reduces and ensure sustainability of efficient, cost effective and quality health care to the citizenry.



It is important Healthcare financiers reconsider inclusion of reimbursement for tele-health and other strategies of healthcare which reduces hospitalization rates and also pay for genomics treatments which are effective with good health outcomes.

PWC in 2017, noted the relevance if the states create the right health policies to ensure technology and new innovative ways of healthcare provision .The state could facilitate in data sharing and legislations that will encourage quality healthcare delivery(PWC, 2017).

To achieve health sustainability, PHC delivery should be intensified and reduce institutional healthcare delivery (paper, change, & group, 2016). More resources allocated to PHC services by states and policy makers is required to phase out the CHPS activities over a period.

2.14 Achievements Of Primary Health Care

The achievements of PHC are enormous. Notably among them are the decentralization of healthcare service across nations, encouragement of intersectoral collaboration, democratization of healthcare services at the communities and the individual level. The involved of the communities in planning and carrying out healthcare activities in their communities. It further deepens the health systems across the globe about the concepts of equity, efficiency, universality, sustainability and quality of services. Health service provision needs collaborative efforts from all and sundry.

It has improved significantly the healthcare coverage among nations in the world, policies to improve on accessibility to healthcare has become the order of the day making states to commit more resources than they would ordinary have to the healthcare infrastructure and service provision. For example, in Ghana, it has made most district assemblies as part of their plans to build a number of CHPS Compounds yearly. The 2016 CHPS policy in Ghana, also appeals to



every district, Municipal, Metropolitans as requirement to devote significant amounts to the CHPS programme over time.

2.15 Decentralization Of Health Service Across Nations

Decentralization of the health system into building blocks to deliver healthcare is one of the results Primary Healthcare has ever chalked. The most important of the structure to PHC is the district health system. It is through the district health decentralization system that PHC has gained grounds worldwide. The DHMT system paves way for the CHPS policy to reach the grassroots with healthcare delivery(Rc, 2003).

Again, PHC has democratized the health systems across the world by initiating community participation in the healthcare delivery. Example of these initiatives are the community health management committees of the CHPS policy, Involvement of the chiefs and opinion leaders of the CHPS zones. Others are mother to mother support groups, father to father support groups, which engage the communities in economic empowerment as well as a vehicle to deliver PHC to the groups.

2.16 Enhanced Intersectoral Collaboration

Primary Healthcare has thrown more light to the importance of the involvement of the other sectors in healthcare delivery. This has changed the face of policy formulation, financing of health programmes and resources generation for health activities. The intersectoral involvement helps to foster efforts in solving the health needs of the communities. The sectors overlap and interplay in healthcare provision in the community and the household levels. Agriculture has an influence on food and nutrition of the people while roads affect transportation of clients and referral of emergencies from the communities. Health sector cannot stand alone but needs the intersectoral collaboration to deliver efficient accessible healthcare to the citizenry. In



collaboration to the education, school health curriculum could be drawn to implement health promotional activities to impact on behavioural change later in life of the citizenry. The school curriculum could include personal, environmental and food hygiene at the basic schools and the teachers taught to train students on basic hygiene practices such as proper hand-washing before and after visiting the toilets which will help reduce a lot of faecal-oral conditions and outbreaks such as cholera and typhoid.

2.17 Challenges Of Primary Healthcare Implementation

According to World Health Organization in the Ouagadougou declaration in 2018, the summit acknowledged a lot of challenges exist even though, a lot of successes have been chalked. There still exist limited equity to health services, lack of infrastructure, inadequate skilled health personnel coupled with inequitable distribution of health professionals, no access to hard to reach areas in healthcare, lack of multisectoral collaboration ,poor health promotion and preventive measures, inadequacy and limited resources allocation to the health sector and preventive services among others .It is also a worry in the African Region, essential health interventions often lack quality and safety(Africa, Health, Contribution, & Global, 2018).

In the African context, a lot of social, political, tribal and chieftaincy easily divides the people which in most cases could affect health interventions in the catchment area. In areas where these divisions exist, the inclusion of the communities, traditional area or a whole political zone is denial access to healthcare.

Another challenge is a lot of communities perceive government property as a different entity and not owned by the community. As a result, the state is seen as been solely responsible for providing the totality of public health services and maintenance of public health facilities. This mind set ends up resulting in a dilapidated health infrastructure in the communities. Small



repairs work which could easily be handled with a minimum cost by the community is ignored with the notion that the state is responsible. This attitude has led to many CHPS compounds with minor structural defects to be completely destroyed and abandoned. A lot have also been left for bats to be used as their habitats.

Another area of PHC that needs to be addressed is the intersectoral collaboration. The health of the people depends on multiple factors and as such cuts across most of the ministries and agencies of the states to thrive. This collaboration among the ministries and even within the local agencies is very weak. For example, PHC delivery will largely depend on good roads for accessibility to outreach points and communities. Some communities are inaccessible during the rainy season. Heavy rainfalls which leads to flooding, bridge collapse and deplorable roads by water erosion makes delivery of essential health services to certain settlements problematic.

Good intersectoral collaboration with the ministry of roads and transport could solve this problem to improve on healthcare delivery to such communities. The same collaboration in food and agriculture will reduce malnutrition considerable.

2.18 Solutions To Primary Healthcare Challenges

The solutions to these problems includes adopting action oriented curriculum approach, the religion and health approach which has been tried in other parts of the world including the Eastern Mediterranean experiences has shown significant impact.

2.19 The Action Oriented Integrated School Curriculum

This idea is basically to reposition health in the educational sector to promote health and enforce or initiate attitudes of healthy lifestyle. Restructuring School curriculum of children is seen as the ideal way of solving the health problems by inculcating into them the activities that promote



health. The school therefore becomes a good agent of positive change for health. Through this the students built good healthy lifestyles and form good healthy habits for better life. Teaching school children to properly wash their hands with soap under running water solves a lot of infections and contaminations which breaks chain of transmission of most diseases.

2.20 Promoting The Spiritual Dimension In Healthcare

According to Rowan, 2009, the world has learnt a great lesson from the Eastern Mediterranean region where a lot of divination is done. It has a deep rooted spiritual belief which was turned to a great asset to make a positive change in their health status. He noted another area which has worked so well is the usage of the spiritual dimension as an appropriate entry channel to bring the people together to promote health. This brings together the community, families, individuals and the country to what the religious teachings requires. Health promotion and educational materials are captioned in a way that the citizens will feel the religious impact. Captions like an ‘Islamic ruling on smoking’, Islamic perspective in female and male circumcision and so on. Which according to an evaluation study has proven to be very effective in modifying the behaviour of the people.

2.21 Community-Oriented Medical Education.

According to WHO technical report in 2003, noted that there is the need for a link of medical education to practice and to the community. The medical educational curricula for training should be very responsive to medical technology and the settings where the staffs are being trained to work(WHO Technical Report, 2003).

World Health Organization as noted in 2018, medical education is best felt if it is community based and with the community orientation. This brings relationship between the training institutions and the health professionals they train. It was further noted there is the need to



integrate the teachers of health professionals with those who provide the healthcare service (WHO, 2018).

2.22 Universal Health Coverage

According to World health Organization in 2013, UHC refers to accessibility of quality healthcare by the generality of the people without being exposed to financial hardship. It is concerned with three broad areas such as health service, finance, the population and changes in response to the demography, technological and epidemiological trends and in line with the people expectation (Who, 2013) (Board, 2018)

In 2018, Partnership noted that UHC is much concerned with the access to quality essential healthcare which is affordable, safe, effective and easy accessibility to medicine including vaccines for all (Partnership, 2018).

2.23 The Journey of Universal Health Coverage In Ghana

Ghana as a country introduced national health insurance system which pays for the medical bills of subscribers and is renewed yearly at a very affordable rates (Drislane & Akpalu, 2014). This reduces the financial barrier to healthcare that would have prevented many from accessing healthcare services when needed. PHC operates on the principle of “leaving no one behind” is central to UHC (Bloom & Studies, 2019).

Public health interventions are also turned out and are brought to the doorsteps of the people through the CHPS activities and the National immunization days.

It is noted that, fast increasing the public health interventions is the only way to achieving UHC in Ghana and the world at large. This statement by Booth summarizes the need and importance of Primary healthcare in the world and for that matter Ghana as a country. “Universal health



coverage (UHC) promises a world in which all people have access to the health services, vaccinations and medicines they need, without risk of financial hardship. A world where the right to health is realized for the 400 million people who currently lack access to basic, primary health care”(Primary Healthcare First, 2017). Connell noted that the equity in healthcare helps achieve better health outcomes(Connell et al., 2018).

Accessibility to healthcare is fundamental human right and not a privilege and for that matter it’s imperative for governments to ensure the citizens enjoy this right without any hindrance.

2.24 Catastrophic Healthcare Expenditure

According to Lopez et al 2005,catastrophic healthcare expenditure is simply the out of pocket payments on health without refunding by a third party to extend that the cost incurred on healthcare exceeding the household’s ability to pay(Lopez-Casasnovas, Costa-Font, & Planas, 2005). This he noted occurs when an adverse health condition forces a household to divert all their expenditure supposed to be in non-medical field to healthcare to extend that food, shelter, clothing becomes a problem in the family. The catastrophic spending on health is usually in two categories, the out of pocket spending on health exceeding 10% of the households’ total income and those exceeding 25%. According to board, 2018, in the world, it is estimated that 11% incurred out of pocket payments which exceeded the 10% and 2.6% exceeded the 25% threshold in 2010(board, 2018).

Other regions like the western pacific region had the highest rate of 14.8% and the south East Asia region was followed by 12.8 % of the 10% rate and increase in both parameters, the 10% and 25% rate. It was further noted that the African and the eastern Mediterranean recorded an increase per annum, at a rate of 4.9% and the western pacific area experiences an increases of

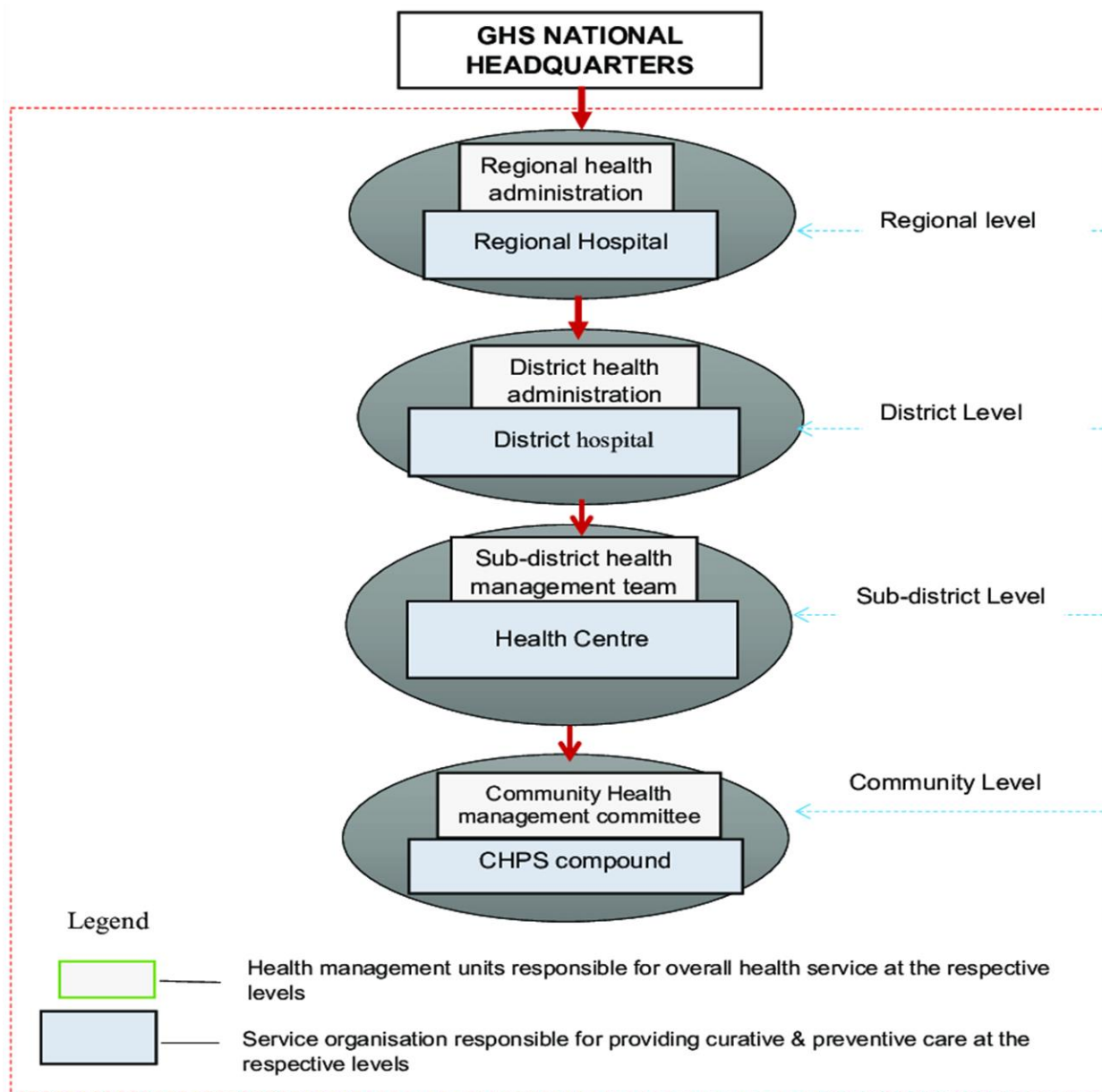


3.6% per annum on average. The American region however experiences decreases in both parameters by 2.05% per year average as at 2010 (to et al, 2017).

If nations are still experiencing out of pocket payments to this extend, then it is an awaking call to governments to institute insurance policies which cover chronic and expensive to treat conditions such as cancers, chronic renal, cardiovascular conditions and organ transplants among others. For these are some of the medical conditions that usually have the higher tendencies of running families into catastrophic healthcare expenditure.



Structure of The Ghana's Health Sector to Provide Primary Healthcare



Source: Ghana health service

Figure 2.1 Structure of the Ghana's health sector to provide PHC

Ghana's health system is structured in such a way that one always serves as a gate keeper to the other in terms of skill, logistics, bed capacity and the scope of service provision.



The administrative structure is supervisory and is made up of clinical and public health structures(Ghana Health Service New Charter, 1996). For example, the Ministry has among other agencies the teaching hospitals and the health training schools which train health professionals and also provide health service.

All levels have administration as well as the clinical institutions to provide clinical activities at that level of care. This structure is the same from the regional level to the lowest level of the structure, the CHPS zones.

2.26 The Administrative Structure

The administrative structure is made up of the national level which basically deals with the policy and supervision of the regional levels. These policies are trickled down to the level of the implementers, the regional levels, the district and the sub-districts and the sub-municipals health administrations, the health Centres and the CHPS zones.

2.27 The Regional Level

The Regional level provides supervision, monitoring and evaluation, support to the districts and sub-districts within their catchment areas. This level also provides curative and public health services through the regional hospitals and their public health units (Ghana's health Sector reforms, 1999).

2.28 The Regional Hospitals

The regional hospital are secondary hospitals and as such provide secondary level of healthcare to their well-defined geographical areas and beyond. They are usually expected to provide these services to over 1.2 million people in their catchment area whilst providing leadership services in healthcare delivery within that jurisdiction. They supervise the district hospitals and the other



levels of care within that area and also serve as referral Centres for the other lower levels before it. They are relatively larger than the district hospitals with over 150 to 200 beds. It is usually equipped with specialist in most of the fields such as the Paediatrician, Surgeons, General and Specialized nurses, Midwives, Pharmacist and Biomedical scientists.

It is also expected to provide wide range of primary and specialized services such as anesthesia, medicine, dental services, surgery, ophthalmology, obstetrics and gynaecology, accident and emergency services, psychiatry, Ear, Nose and throat, dermatology among others.

Another area of services provision includes medical laboratory services, Training of health professionals on practical activities, supervision of district and other lower levels of care(Ghana's health sector reforms, 1999).

2.29 District Level Of Care

The district level provides curative as well as public health activities in the defined catchment area with a population of about 100,000 to 200,000. The DHMT supervises the other lower levels of care under their catchment areas. The district hospital takes care of curative services including surgical cases, for instance basic obstetrics care including caesarian sections for the geographically defined catchment area.

The bed capacity of the district hospital is often between 50 to 60. A district hospital provides all the services provided by CHPS, Health Centres and in addition, surgeries and other healthcare services that the other two levels do not provide.

2.30 The Sub Districts Level

The sub-districts provide both the preventive and the curative services in the catchment area. They also reach the community members through outreach services through the CHPS.



2.31 Health Centres

The Health Centres used to be the entry point into the healthcare delivery system. However, this has changed with emergence of the CHPS concept in Ghana. It is usually headed by a nurse practitioner or a physician assistant and staffed with other departmental heads such as midwifery, nutrition, psychiatry, laboratory, public health among others. Its catchment area is about 20,000 populations. Basic preventive and curative services are provided by these health Centres. They also provide minor surgical services and refer those that are beyond its capacity to the district hospitals for further management. Another form of a health Centre is the polyclinic which is an urban form of a health Centre and usually headed by a medical officer.

2.32 The Teaching Hospitals

The act that establishes the Ghana health service and the teaching hospitals is the act 525 in 1996. This mandates the Teaching Hospitals to provide high standard services, research and training of health professionals among other things (GHS ACT 525, 1996). The Teaching Hospitals are huge autonomous institutions which are also agencies under the Ministry of Health and are not under the Ghana Health Service structure. Teaching Hospitals are Centres of excellence and complex health care institutions.

The governance of teaching hospitals encompasses many stakeholders; the MOH, the Ministry of Education, the Government, the university, and the traditional rulers of the area. It also requires multifaceted expertise and machinery to run the institution. They are usually very expensive to run and also serves as training institutions for health human resources.

They provide complex curative and preventive healthcare activities. This makes the health system in Ghana posed for universal health coverage and primary healthcare oriented. The services overlap at all the levels of care. The teaching hospitals provide all the services rendered



at the CHPS zones and in addition to the complex healthcare needs that are not done at all the levels before it. They also serve as referral institutions for the other lower levels of care. Teaching hospitals give basically specialist care in all the medical disciplines in the country and medical protocols for use.

There are currently five Teaching Hospitals in the country. These include the Tamale Teaching Hospital, Komfo Anokye, Hoe, Korlebu and the Cape Coast Teaching hospitals which are leading the tertiary care in the country.

2.33 Evolution Of CHPS In Ghana As Primary Healthcare Policy

According to Nyonator et al, 2018, the CHPS programme in Ghana started after the successful experiments from the Navrongo health research institute in 2005. The main aim was to improve on accessibility of health service as well as efficiency, effectiveness and quality of health service to the communities (Nyanator et al., 2018) (Binka et al., 1995).

2.33.1 The Origin Of CHPS In Ghana

According to Nyonator et al, 2005 the CHPS policy is to address longstanding gap and policy need origination from Alma Atta Deceleration in 1978, “health for all”, this was so relevant because research showed in the 1980s and 1990s that 70% of Ghanaians still lived over the 8km range to access healthcare which impeded geographical accessibility and rural infant mortality rates were double the corresponding urban rates (Nyonator, Awoonor-Williams, Phillips, Jones, & Miller, 2005a). This worrying trend prompted the search for new ways of solving the health needs of the rural dwellers in Ghana.



2.33.2 Why Community Health Nursing In Ghana

According to Nyonator et al 2005, noted the community health nurses as a cadre of professionals were basically introduced to solve the problems associated with community health volunteer system in the past. The name community health nurses denotes their main duties was to give professional, and acceptable and effective, services than village health volunteer and reside in the communities(Nyonator, Awoonor-Williams, et al., 2005a).

This was however, not the case as more than 2000 community health nurses who were trained and posted to duties in the 1990s, most of them worked from the health Centres and were not staying in the communities as planned. This affected how services were delivered, this led to the Navrongo model, the CHPS concept.

2.33.3 How The Navrongo Model Started

According to Nyonator et al, 2005, the Navrongo model was designed to harness the community's resources such as the chieftaincy, clans, families and social networks enhance the CHPS activities. The Navrongo model sought to revamping the community health nursing by restructuring it to make it community health officers resident in the communities. This was believed would reduce morbidity and child mortality. The constraints however were that, the milestones were not yet known (Nyonator, Awoonor-williams, Phillips, Jones, & Miller, 2005).

A pilot investigation was conducted which showed widespread interest of communities in getting resident healthcare provider led to voluntary donation of lands, material resources, and human resource, to develop community health compounds at the time. These were built from locally materials, methods and their own available resources. The community health committees were formed and the Nurse introduced in a durbar to the community and opinion leaders. The



CHO assigned to the community health compound, provided with a motorbike to facilitate easy movement and logistics to work.

According to Nyonator et al 2005, results of the pilot study was amazing. It showed that stationing a community health nurse in the community in these community compounds could outperform a sub-district health Centre with better health comes. The volume and range of services such as immunization and family planning also increased tremendously with significant reduction in child mortality(Nyonator, Awoonor-Williams, et al., 2005a)(Awoonor-Williams, Phillips, & Bawah, 2016).

2.33.4 The Nkwanta Experience

The Navrongo experience was launched in Nkwanta in the Volta region of Ghana to familiarize non research setting characteristics and the transferability and sustainability of the CHPS concept. The implementation by the Nkwanta DHMT was very successful and when the results were disseminated at the Ministry of Health National Health Forum in 1999, a draft policy was designed to implement the CHPS activity over time. This meeting gave birth to CHPS programme in Ghana as a national Policy for primary healthcare delivery(Ghana Health Service, 2009).

2.32.5 CHPS As A National Policy

Ministry of health, Ghana organized a stakeholders meeting in 1998 to discuss the results of the Navrongo experiment model for countrywide implementation and also to review a draft document to adopt the Navrongo community health care system as national policy for community-based healthcare (Nyonator et al., 2018). That was the beginning of CHPS in Ghana been viewed as a national policy to deliver Primary Healthcare.



This then led to gradual introduction of CHPS into the districts through extensive planning and community engagements between the Health Service and the community stakeholders. The major principle of the CHPS is the acceptance of the CHPS concept by the traditional and the opinion leaders of the community and their readiness to assist the activities of the CHPS.

The CHO is an integral part of this policy who is also further trained in the management of minor cases and administration among other things to be well equipped to run the affairs of the CHPS zone. This is the responsibility of the DHMT(GHS CHPS Policy,2016).

The CHOS is expected to visit the people in the community from house to house to ascertain their health needs and provide services to them. The catchment area for a zone covers an area of approximately 3000 individuals or 750 households (CHPS policy, 2016). The CHPS by this policy, the CHO is required to provide services such as, immunizations, family planning, emergency delivery, antenatal, postnatal care, treatment of minor ailments and health education. They are supported by the community health volunteers who assist them with the community mobilization, the maintenance of community registers and other essential activities. They also Prepare and submit report on community health activities regularly(Programme Of The Community-Based Health Planning , 2015).

2.33 Steps In Creating CHPS Zones

These include, initial planning, community entry, CHPS compounds.

2.34 Initial Planning

The operational unit of CHPS is the 'zone', a geographic area where all CHPS services are phased in over time. By this the health manpower of the health directorate is usually assessed



first, then clear boundaries without ambiguity drawn to demarcate the area to make itinerary services easy and convenient.

Again, logistics for training and the equipment for the start of the CHPS zone are also a necessary component and finally assignment of a well-trained and self-motivated CHO to the community. The zoning is done according to the Ghana local government electoral system where a zone takes a population of 3000 to 4500 in densed populated area.

2.35 Community Entry

The ‘community entry’ this is done at the zonal level with the community opinion leaders. The community health committee is also formed and the community health volunteer is chosen and together with the CHO are presented to the community members in a durbar amidst drumming and dancing and speech making by the opinion leaders. This is where the community energy and other resources are put together for health activities to kick start.

2.36 Creating The CHPS Compound

By the 2016 Ghana’s CHPS policy, the CHPS compound is a well-furnished area with gates and pavements for both the service and the residency. It is a standardarised design for everywhere in the country. Eventhough, some district assemblies have made modifications due to resources constraints, the standards were set for the structure(Nyonator, Awoonor-Williams, Phillips, Jones, & Miller, 2005b).

2.37 Stakeholders Key Institutions In The CHPS Process

The stakeholders include the following institutions and individuals in the calving out and implementation, monitoring and supervision of the CHPS concept in the districts and the sub-



districts levels as noted by Nyonator(Nyonator, Awoonor-Williams, etal., 2005)(CHPS-Operational-Policy-2005)(GHS CHPS Policy,2016).

2.38 The Community Level

Community members, opinion leaders.

The Community Health Committee

The Community Health Volunteer

2.39 District Level Stakeholders

The District Director of Health Services (DDHS)

The District Health Management Team

2.40 Subdistrict Level

The sub District Health Team

The Sub District Head

The community Health Officers. (CHO)

2.41 The District Assembly

The District Chief Executive (DCE)

The Social Services Sub Committee of the District Assembly.

2.42 Roles And Responsibility Of The Key Institutions And Officials

2.43.1 Functions Of The Community Health Committee

The committee settles minor disputes that might have arisen among the CHVS. They also organize communal labour to clear the CHPS compound and other health programmes of the



community. They advocate for health programmes and make announcements for community activities to kick start and also account for the community health volunteers stock of drugs.

2.43.2 The Community Health Volunteers

The CHV assist in treatment and prevention of malaria, family planning services by distributing condoms and referral of cases to the CHPS compound for further management.

They also identify missed children for immunization and do disease surveillance in their communities.

2.43.3 The District Health Management Team (DHMT)

The District Director has the overall responsibility for the health service of the District.

The DHMT performs planning and budgeting, manage health programmes within the district and offer technical advice to the district assemblies.

They also support and assist the sub districts health team.

The district management team also supplies essential drugs and medical commodities to the sub districts.

2.43.4 The Sub District Health Management Team (SDHMT)

The sub district team holds meetings with the communities, organize durbars and conduct training for the CHO, CHV and the TBA in the sub district.

Collects reports from the communities, CHO and disseminate policies and programmes as they come. Supplies the CHPS with essential drugs and medical consumables.

They also write progress report on the sub district.



2.43.5 The Community Health Officers (CHO)

The CHO at the community performs several duties including the health education, Family Planning, EPI, Antenatal and Postnatal service.

Supervision, monitoring of the CHV and disease surveillance in the CHPS zone,

They also provide nutritional, psychiatry, Outpatient services and wound dressing among others.

2.44 The Role of The Political System in CHPS

These political systems include the municipal assembly with the municipal chief executive as the political heads of the municipality.

The municipal chief executives and the municipal assembly members are major stake holders in the CHPS activities. The municipal assembly uses the health components of the common fund to build CHPS compounds in their area of jurisdiction and provide logistics to support the CHPS activities. They ensure electricity availability, water to the facility and other social amenities such as the roads to the site or other alternative need like Boreholes and solar panels to power the facility and store vaccines.

They also work in hand with the district health directorate in the zoning and demarcation of the CHPS.

Awoonor et al, noted in a study conducted in 2016, that to ensure rapid scale up of the CHPS policy ,the health system should endeavor to involve politicians at the activities at the grassroots .This he noted will encourage them to advocate and also act for the CHPS activities and further build more CHPS compounds(Awoonor-Williams et al., 2016).



2.45 Scope Of Services Provided By The CHPS

The Astana declaration for 2030 prescribes the following as the minimum services packages for the primary healthcare for all member states: Sexual, reproductive, maternal, new-born, child & adolescent health, gerontology, rehabilitative care, palliative care, non-communicable diseases, mental health, communicable diseases, HIV/AIDS, traditional and complementary medicine, and disease surveillance (vision for primary health care in the 21st century, 2018). This recommendations however, many countries are still implementing them in their own way as their resources will permit.

In Afghanistan for instance, the following is considered as their minimum service PHC packages includes; Maternal and child health, Antenatal care, Postnatal care, delivery, family planning, neonatal care, postpartum care, EPI, nutrition services, management of malnutrition, and other conditions such as TB, mental health, malaria control, physiotherapy, disability, orthopedics and supply of essential medicines to the service points (Newbrander, Ickx, Feroz, & Stanekzai, 2014).

The Afghanistan scope of service goes extra to add other services which are not for instance done by some member nations like Ghana's scope of services rendered by the CHPS.

With the inception of the CHPS policy there has been frequent changes to the minimum service package for the CHPS with additions from time to time. However, the current 2016 CHPS policy has the following as the minimum package for the CHPS activities: Post Natal Services, Emergency Delivery, Community Durbars, Immunizations, Nutritional Rehabilitation, Disease Surveillance, Home Visits, Health Education, Health Promotion, Treatment of Minor Ailment, Referrals, Mental Health Services, Community Health Management Committee (CHMC) meetings, Antenatal Services, Family Planning Services (GHS CHPS Policy, 2016).



According to the comprehensive PHC policy document by the south Australian healthcare, they provide extensive PHC activities including health screen. It provides for the children under 15 years to have a free yearly health check-up which does not replace existing routine neonatal checks (framework for comprehensive primary health care services for aboriginal people, 2011). This health check-up has schedules for the entire population and not limited to only the stated age group. Those aged over fifty years have this schedule at least once every two years interval.

This component is not common among other nations such as Ghana because of potential abuse by the citizenry resulting in escalating healthcare cost.

2.46 The Ghana Health Service Charter

This charter was an act of parliament in 1996, Act 525 which spelt out the mandate of the Ghana health service. This includes the scope of services and the time frame for those services to be provided. The table below summarizes the scope of the services provided by the Ghana health service and the time frames expected (Ghana Health Service New Charter, 1996).

The table 2.1 shows the details of the range of services provided and the time frame.



Table 2.1 Ghana Health Service Charter Range Of Services

SERVICES	TIME FRAME
Provision of primary, secondary and specialist clinical consultation	Within 3hours of arrival
Emergency surgical and medical services	Within 5 minutes
General Laboratory service	24hours after specimen taken
Training of staffs	Throughout the year
Provision of preventive ,promotive and rehabilitative services	Throughout the year.
Research	When need be.
OPD Pharmaceutical service	Within 30 minutes
General Radiological services	Within 90 minutes
Inpatient care	Daily reviews

(Ghana Health service the new charter, 1996)

2.47 Effects Of Rainy Season On CHPS Healthcare Delivery

The impact of the rainy season on the healthcare delivery of communities and individuals are enormous. This includes high prevalence of seasonal infections which results from an increase in breeding of vectors such as mosquitoes. Flooding potentiates outbreaks such as cholera, dysentery and amoebiasis in the communities.

According to Patz etal ,a research conducted in 2000 ,the impact of life-threatening weather events such as severe storms, floods, and drought have led to loss of many lives globally within



the last 20 years and have adversely affected property running to billions of dollars (Patz, Engelberg, & Last, 2000) .

Heavy rainfall and flooding may trigger outbreaks of Diarrhea in areas with crowding and poverty. According to Arhin et al, 2016, increased rainfall is directly proportional to the rate of malaria positivity in Ghana. This, he noted is due to the availability of water on the surfaces and stagnant water in the bathrooms and gutters allowing the mosquito larvae to breed in high quantities resulting in corresponding infected bites(Arhin, Zango, & Berdie, 2016).

2.48 Flooding

The health effects of flooding during the rainy season could be very alarming. People get drowned, injuries, and deaths. According to Patz et al,2000, river floods in central Europe in 1997 left more than 200,000 people homeless and over 100 dead(Patz et al., 2000).

In Bangladesh and Sudan for instance, severely malnourished children increased tremendously after flooding and Mental health cases escalated in Poland, where 50 suicides were attributed to the floods alone (Patz, Grabow, & Limaye, 2014).

Mukabutera et al,2016, stated that an increased in diarrhea cases resulting in high mortalities globally over 2.5 billion cases each year among children under five years. This he noted occurs more in Africa and south Asia continents with floods(Mukabutera et al., 2016).

According to a research conducted in Greater Accra ,capital city of Ghana in 2019, stated that, severe floods in June, 2015,destroyed several property and over 200 people lost their lives and many displaced(Greater, Region, Region, & Government, 2019)(Asumadu-sarkodie, Owusu, & Rufangura, 2015).



Again in 2013, floods in the northern regions of Ghana caused destruction to properties including houses, farmlands and displaced about 25,000 people (Earth Changes, 2013). This severe rain floods affected most parts of the Sangnariagu Municipality which has flood prone areas with gullies and lowlands which qualify for rice farms. Notably among these areas are the, Kanvilli-Tunayili, Gumani, Kpawumo, Nyanshegu, ward 'k', Shishegu, Kasaligu, Choggu-Soganayili, Gariba lodge gutter which floods and destroys property and life almost every year.

In July 25, 2017, these floods swept three children including one teacher of 54years with his vehicles at the Gariba lodge after a heavy rain which flooded the highway to Bolgatanga. These preventable lives were painful lost to the flood waters and several people lost property and thousand displaced from their homes.

A lot of public facilities such as the schools, health facilities roofs were taken off by the heavy rain storms resulting from the heavy rainfall and most mud houses fell within this period.

Some of the causes of these problems are man-made activities that results in flooding such as the unplanned settlements where people build in water ways and indiscriminate disposal of refuse into banks of rivers, gutters which choke water ways causing massive flooding in most parts of the municipality within the rainy season.

Another important factor that brings about this calamity is the actions and the inactions of the relevant authorities to ensure these unauthorized structures are not there in the first place, turn to ignore them and only response when the worse has already occurred.

This results in severe socioeconomic effects in the municipality such as loss of lives and property, disturbances in transportation systems, massive health issues like cholera, diarrhea,



malaria as well as the abject poverty induced by the climate in these flood prone areas in the municipality (Alhassan, 2014).

These river floods in some communities serve as a barrier for geographical accessibility to the communities for effective PHC. Adult and children get drown in these river floods. People from the villages who drink from river sources, drink highly contaminated water and get diseases such guinea worm, typhoid and diarrhea. In the same vain children who swim in these contaminated water sources end up getting bilharzia and others get to meets wild crocodiles and snakes in these waters and get killed. Floods deepen poverty and misery of the already marginalized people (The Lancet, 2017). Flooding is our greatest enemy in health service delivery.

2.49 Increase Vector Breeds

Patz and Olson conducted a study in 2006 and found out that, the Plasmodium parasite multiply faster in the mosquitoes in the warmer but moisture environment, increasing the chances of the infection to human population within this period (Patz & Olson, 2006) (Chaves & Koendraat, 2010).

Jones et al, in 2007, found out that there is high incidence of malaria cases in the rainy season.

In Mbeya Region, Kangalawe in 2009, also established a clear relationship between increased in mosquitoes breed and high malaria cases as an influence of the climate change (Mboera, Mayala, Kweka, & Mazigo, 2011).

WHO in 2003, established that mosquitoes need stagnant water to breed and the adult ones do well in humid weather conditions for viability. This explains why malaria peak season is often the rainy season in Ghana and most countries in Africa since this season provides the vector with



the most suitable conditions for its increase in numbers and with corresponding spread of the infection(World Health Organisation, 2003).

2.50 Food And Water Contamination

Food and water contamination is always high during the rainy season. Most of the communities still drink from dams, wells which easily get contaminated by running water. Open defecation is also practiced by most of the communities in this municipality. The worse of it all the metropolitan landfill site is situated in this municipality at Gbalahi. The running water carries all these faecal matter and chemicals into the drinking sources when it floods. Mature foodstuffs not yet harvested gets immense in this flooded water for days and is harvested after it subsides. This highly contaminated food is eaten and chemical poisoning resulting in diarrhea and health complications in the distant future such as cancers are a likely outcome.

2.51 Barrier to Accessibility of Healthcare Delivery

The floods impede access to certain community which are flood prone. Bridges get collapsed, and rivers and gutters get filled up impeding access.

Another way the rainy season affects healthcare in the CHPS concept is during the service provision, most of the services would have to be truncated when rains starts since they are conducted under trees without structure.

2.52 The Time Access Of Community To A Healthcare Provider

The time access of the healthcare provider is in two forms, physical access and timeliness of provision of the service. To begin with, the patients should have physical access to healthcare with acceptable and reasonable waiting times. Then hours and days of facility operations flexibility such that patients can find the time to visit facilities without sacrificing other



obligations and duties. Attendance to health facility to seek healthcare should not affect their daily activities such as job and childcare. Time access to healthcare takes into consideration emergency care, waiting time, availability of competent health professionals, variant services that meet the client needs at an affordable cost. Time access also is not limited to day duties but covers full intensive services for the twenty-four hours in a day and seven days a week(Improvement Strategies Model : Access : Timeliness, 2018).

The Liberian health system is also in tiers with two PHC Layers before the health Centres.

The first two tiers PHC level 1 and level 2 clinics are required to work at least 8hours a day from Monday to Friday whereas health Centres, districts ,regional and national hospitals required to work 24hours and for 7 days ,day and night(GoL - MoH, 2011).

2.53 CHPS Today

By the Ghana health sector facts and figures, 2018, the CHPS has increasingly contributed to healthcare delivery in Ghana. The Contribution of the CHPS to the total Out patients in 2016 was 8.5% as against 8.1% in 2015. It did far better in upper east as it contributed as much as 16% of their OPD services in 2016. In terms of EPI activities, the CHPS performed progressively well. It formed 38.9% of the Penta 3 immunization nationwide in 2016 as against 36% in 2015. Eastern region recorded almost the highest in CHPS contribution to primary healthcare at 59.7% to their Penta 3 coverage.

Again, the CHPS performed creditably well in family planning as acceptor rate was over 25% with the highest of 47.9 % recorded by Eastern Region and least of 9.7% by Greater Accra(GHS Report, 2017).



The CHPS as PHC policy has come to solve our primary health needs as a nation and we need to support it and together work to remove all the bottom necks impeding its progress to achieve UHC.

2.54 Urban CHPS Versus Rural CHPS

The urban settings defer from the rural setting in so many ways and as such affects the CHPS activities in the urban areas over time. It is not easy to find a community health volunteer in the urban setting to perform this role for a long period of time. While it is seen as a form of recognition in the rural communities, it is perceived as a punishment and unrewarding to the individual in the urban setting where the person will have to battle for his or her daily bread.

Peoples jobs and business activities pre-occupy them to extend that they do not have free time to invest into volunteerism.

Another factor is migration, education, business activities make no way for the people to gather for health activities.

Gated communities and dogs chasing health professionals for even national and sub-national immunization campaigns in the residential areas like the quarters and privileged communities on daily bases are common.

While the “town crier” announces for everyone to hear and be mobilized for health activities in the rural setting, it is not possible for the “town crier” to do same in the urban settings.

Again, the urban dwellers seem to have options and higher taste for services and caliber of professionals. They need services by specialist in the field of their health need.

They also have access to many facilities providing same services giving them many options to choose which is not the case with the rural CHPS zones.



To meet them at home, one would have to study their movement one after the other, some weekends, night before you can meet them at home to provide the services which is not the case with rural CHPS zones.

Building CHPS compounds in the urban areas for the urban residence may not yield any positive results since there are higher facilities which are evenly distributed both public and private facilities but is very important in the rural CHPS zones(Adongo et al., 2014).

2.56 Funding of CHPS in Ghana

The CHPS policy puts the primary duty of funding the CHPS activities on the chest of the central government. The direct sources of funding are from the common fund through the district assemblies on quarterly bases. This is however, usually not realized at the CHPS level. This makes it difficult in managing at this level. Important items like the cleaning detergents, medical consumables and gloves for effective service delivery remains a challenge in most cases.

Another source according to the state is the 10% levy on salaries of the executives and the members of parliament be committed to the CHPS activities over a period. This is not feasible and the funds if deducted at all, do not reflect in the CHPS activities in the zones, neither infrastructure nor repair works seen in most areas.

The allocation of the funds from the national health insurance authority to the ministry of health for onwards distribution to the CHPS is the another funding option stipulated by the CHPS policy, this again, is not realized at the zonal level.

The only source of funding that supports CHPS activities is the contribution from the development partners to the CHPS. This is the only source which appears to be coming but irregular and untimely, making planning activities very difficult to carry out.



Some philanthropies have done their best in support of health care delivery in their communities by way of construction of CHPS or donation of logistics for the CHPS activities but these are not enough to make significant impact in the numerous CHPS zones (Ministry of Health, 2014).

The ministry of health, the state for that matter would have to find a more sustainable way of funding the CHPS activities over a period.

Public health funding in Ghana is a challenge. Public health disease outbreaks and pandemics could bring the entire country to a halt. Preventable lives could be lost in the process and permanent disabilities of various forms created due to these pandemics and epidemics. It is therefore very important the health preventive and promotive measures are constantly adhered to boost the immunity of the population against some of these unforeseen situations. For this reason, more allocation of funds and other resources to the public health for preventive and protective activities is required. This the state owe it a duty to do without excuses (Assan, Takian, Aikins, & Akbarisari, 2018).

2.54 Challenges Of The CHPS

The CHPS is part of the structures of the Ghana health service basically to ensure UHC for the basic packages of services for all. However, they face logistical constraints which impedes their effective delivery of health service to their CHPS zones. Some of these includes but not limited to lack of motorbikes, electricity, water, and accommodation for the CHO.

Medical equipment such as thermometers, Sphygmomanometers, cold chain fridges and essential drugs also remain a serious challenge.

Most functional CHPS are found under trees with one or two tables and chairs and a bed with screens which have to close down when dark clouds are formed. All these make working at the CHPS tedious and deter people from going to such communities to work.



The CHPS continue to lack midwives in the communities which is a major worry to the CHPS functioning(Assan, Takian, Aikins, & Akbarisari, 2019).

Another very important issue is the spirit of volunteerism which has diminished to a large extent that CHVs would want financial reward to perform their duties. The “town crier” asks for pay to perform that role which used to be the community’s role to give information to the members supervised by the chief.

In the same vein, NGOS are over burdening the CHOS and CHVS with increasingly services without logistical and material support to these addition they make. This persistently done over time has shifted focus from the main scope of services provision as captured in the 2016 CHPS policy.

Another serious challenge is the CHPS staffing. Staffs are trained but not posted due to lack of financial clearance by the state to pay them. The few that are also employed postings are skewed towards the urban areas leaving the people living in the lesser developed areas to continue to lack healthcare staffs. Postings are occasioned by political interest and favoritisms among others.

The funding for CHPS in Ghana needs much to be desired(Yeboah, 2020). The state could find more sustainable sources of funding like the Tax on the air talk time to fund the CHPS activities over period.

2.55 Recommendations To The CHPS Challenges

The CHPS challenges are quite disturbing and require urgent solutions to maintain smooth running of the CHPS policy.

The overly additions of services to the package should be stopped. The Non-Governmental Organizations in health contribution appears mainly to be training of the same staffs and



burdening them with new scope of services which are not in the CHPS policy leading to abandonment of the main duties of the CHO by the policy.

Another important area to be improved is the frequent and timely provision of logistics, most especially the essential medicines and motorbikes for health service delivery. This has serious implications to the CHPS healthcare provision both for the outreach and static services.

Similarly, CHPS compounds built without accommodation serves less a purpose to the health needs of the communities. Therefore, every CHPS compound built should incorporate into it the accommodation for the staffs to enable 24hour service provision and referral. This problem could be partly solved by renting accommodation for the staffs in the zones they work.

Some politicians have taken advantage of the rural health care needs to provide shoddy uncompleted structures as CHPS compounds to lieu votes from these less developed areas without the proper components and adequate space for effective service delivery. Some do not furnish the place for service delivery which turn out to be underutilize. Some projects are also truncated with the loss of power of a politician who started it. Health is a state owned and ideally should not be politicized.

Poor maintenance culture of the CHPS facilities and equipment is another worrying trend to the CHPS health service delivery to the communities. Most CHPS compounds are left at their own mercy. No particular institution or individual is directly responsible for small maintenance works on these structures and are left to their faith. The responsibility is placed at the doorsteps of the central government to provide resources and funds for these maintenance activities. This has not been feasible for some time now. The district and the municipal directors of health benefit directly from the small internal generated funds in these institutions and should be made responsible for minor repair works in the CHPS zones.



Unmotorable roads and flooding during the rainy season is another area that hinders the CHPS activities over time. Hinterlands are cut out during the peak rainy season and preventing some communities labelled hard to reach from accessing preventive and curative health services over this period. The consequence can be fatal. This could lead to sporadic and intermittent outbreaks in most parts of the country due to low coverages of immunizations in those areas. The minority population residing in these less privileged communities stands a higher chance of attaining low immunity against the vaccine preventable diseases and thus no hedge immunity in such settlements. This could be prevented by the provision of the logistics alongside intersectoral collaboration with the roads ministry to prioritize these areas in times of road infrastructure development.

The concept of community volunteerism poses a challenge to the community health activities. It has lost its value and purpose to say the least. Everyone wants to be paid for any job done at the community level. Clearly, it is also difficult to find a true volunteer in the metropolitans. Migration and other daily activities for survival make it very difficult to get a committed person to perform this role for a long time. To solve this problem, a paid community member for a catchment area has to be looked at. The state laments about the financial implications but remains the surest effective way of the community surveillance and reporting system over a period. This is practicable and sustainable. More so, when Governments employ youth into health activities as a stop gap measure to solve unemployment. This can surely be jobs created over a period for a community health volunteer to perform health activities in a catchment area. Quality healthcare system is expensive but gives ultimate results. The health needs of the citizenry must be taken into consideration first before any other need. On this bases, the paid community volunteerism is the fairness solution to this longstanding problem.



Outreach sections held under trees is another worrying convention that has gained roots in most parts of the country. This as much as it is important and helpful in the dry season, it is a great challenge in the rainy season. Apart from risk of branches of trees falling on the people with the slightest rain storm, it also truncates the services they provide. The major solution will be the communities to provide an enclosed place for sustainable outreach activities across all seasons without hindrances. This community can pull together their strength and resources to do without much cost. Another way to do this is the districts and the municipal health directorates to use the internal generated funds to create shades and other minor things to enhance quality healthcare delivery to prevent outbreaks.

District assemblies can also use the health component of the common fund to engage in some of these activities to promote healthcare delivery in the communities in all seasons without disturbances.

To prevent the perennial flooding disaster, the communities on floods prone areas could be resettled by the state through the district assemblies to save perennial loss of life and property.

Permits for buildings are not adhere to and structures spring up at all areas without recourse to the law. The usual inscription is written on it, 'produce your permit'. Few days later one will see such buildings completed and at a point where harm will be caused to majority of Ghanaians in times of flooding.

The citizens will have to take a bravery decision to take action against such individuals in the form of law suits to prevent further occurrences.

To attain UHC in Ghana, it is extremely important for both the state and all stakeholders such as the chiefs, religious leaders, political authorities, as well as the citizenry put our hands on desk

and make this CHPS policy work to perfection. It is not enough having a policy on a paper and with sharp variation in implementation. The outcome and the results needs to be evaluated on regular bases and the challenges address promptly as possible.

Another simply way to stock the lower levels with the equipment is to bring down the logistics we replace from the higher levels to the lower levels for continuity of health delivery. For instance, when the regional hospitals are changing their ultrasound scans, patient beds, mattresses, drip stands and sometimes furniture which are not broken down could be shifted to the health Centres or the district hospitals to use for a period. If this is made a policy, it will prevent people from deliberately declaring certain logistics unusable in order to just auction them to cronies which could otherwise be used to improve healthcare delivery in the underserved areas of the country.

Another new problem emerging from the CHPS concept is the difference in urban CHPS to that of the rural CHPS. To solve the urban CHPS problems, the CHPS policy will have to be redefined and structured. The needs and the modalities of the urban CHPS defer sharply to that of the rural areas and as such requires different approach.

The strategy will be to intensifying school health for second year of life to five years to pick this group from the schools when public health intervention is required in the urban areas.

Again, health workers in the CHPS zones will have to agree to work on odd hours and weekends to meet the population at their resting periods to deliver the interventions.

Religious grounds are another places where carefully planned interventions can meet the mothers and children to access the interventions in the urban areas.

In the same line, market places are where a lot of people in the urban area spend much of their time on the economic activities. Having time and permission to carry out interventions in these



areas will help improve accessibility to healthcare in the urban CHPS. The main objective of the CHPS is carrying healthcare to the doorsteps of the people. Some of the people in the urban areas stay in the streets, therefore sending healthcare services to their doorsteps means meeting them on the street where they abide. Public health is about protecting your neighbor for you to get protected. Be your neighbor's keeper.

The structure and the Caliber of professionals for the urban CHPS will have to be examined, because the taste of the urban citizens is slightly higher preference and expectations. They will want to see a cleaner environment and sophisticated equipment for them to believe that the facility has the required capacity to deal with them. This ideally should not be the case.

The CHMC members may have to change from choosing to using elected people from that community or locality. The officers of the local government be used in the urban CHPS concept.

The paid community health volunteer concept will be very relevant in the metropolitans as everyone fights for survival economically and no one would want to frequently waste so much of his or her business hours in volunteerism.

The announcements in the urban area varies to that of the rural dwellers. The urban communities use the radio, television, print media while the rural use the "town criers" to announce to the community. The later means are very expensive ways of giving information than the "Gongon" beating and requires more resources to do the announcements.

Posters and bill boards are another way to get to the majority of the urban dwellers which are all very expensive ways.



Again, since majority of the urban citizens are educated, the leaflets, graphics are surest effective way to get to the officers.

The CHPS concept was piloted in the smaller communities and scaled up to the entire nation, some of the principles are not fully applicable in the metropolitan areas which has different structure than the smaller communities where everyone appears to know one another(nwameme, tabong, & adongo, 2018).



-CHAPTER 3-

METHODOLOGY

3.0 Introduction

This chapter deals with the methods and techniques employed in carrying out the research. It is concerned with the study-design, -type, -area and –population as well as sampling techniques, data collection tools and data analysis.

3.2 Description Of The Study Area

3.2.1 Geographical Location

The Sangnarigu Municipality is located in the Northern Region of the republic of Ghana, which lies between latitudes 9°16' and 9° 34' North and longitudes 0° 36' and 0° 57' West with its administrative capital Sangnarigu and possessing a total land size of 200.4km²(Population And Housing Census, 2010).

The municipality shares boundaries with 3 others districts: The Tamale Metropolitan to the South and east, The Tolon and Kumbungu districts to the West. Three out of the four districts sharing boundary with the municipality do not also have district hospital, secondary and tertiary facilities, hence making accessibility to these levels of healthcare services more difficult by the rural dwellers of the municipality. Refer to Fig 3.1 for the map of Ghana showing the Sagnarigu municipality.



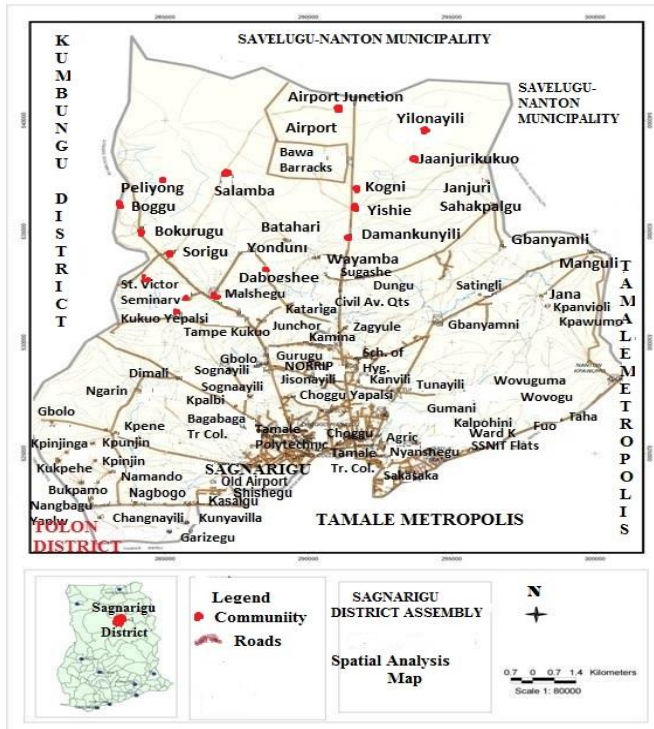


Figure 3.1 Ghana Map showing the Sangnarigu Municipality

3.2.2 The Political And The Administrative Structure

Sangnarigu Municipality was created in the first half of 2012 and inaugurated in 24th June, the same year by the legislative instrument (LI) 2066 to foster development in the northern and the western part of the Tamale Metropolis.

The Municipal Chief Executive is the administrative head of the municipality. The municipality is subdivided into three area councils to aid in effective local governance administration. These include: Choggu-Sangnarigu, Kalpohini and Kanvilli local area councils. The area councils are further subdivided into 23 electoral areas with 31 municipal assembly members made up of twenty-two elected and nine government appointees.

The Municipality has two constituencies, the Sangnarigu and the Tamale North constituencies with one Member of Parliament each (Sangnarigu municipal profile, 2013).



3.2.3 Climate and Vegetation

The Sangnariagu municipality has a single rainfall pattern which extends from May to October with heavy rains in July to August each year with average rainfall ranging from 600-1100 mm (Ghana statistical service,2014). Most parts of the municipality are flood prone areas with gullies and lowlands which qualify for rice farms. Notably among these areas are the, Kanvilli-Tunayili, Gumani, Kpawumo, Nyanshegu, Ward 'K', Shishegu, Kasaligu, Choggu-Soganayili, Gariba lodge gutter which floods and destroys property and life almost every year (Alhassan, 2014).

3.2.5 Demography

According to the 2010 Population Census, the municipal population is about 180,914 with an annual growth rate of 2.9%. The population density stands at 497 persons per sq. km. The population variation in terms of ethnicity with the Dagomba being the majority. There are other ethnic groups such as the Akan, Ewe, Chokosi, Hausa and Moshie.

Development in the Municipality is varied with most part being Rural. Despite this, 62.0% of the people live in the urban part of the Municipality with only 37.4% in the rural areas (Population Census, 2010).

The three major religious groupings common in the area include, Moslems, Christians and Traditionalists.

The youth in the area do seasonal migration to seek greener pastures especially in the southern part of the country with the females been the most affected. They travel to engage in menial jobs such as 'head-pottering' to earn a living which often exposes them to health hazards including sexual abuse (Population census, 2010).



3.2.6 Economy of The Municipality

The main occupation of the municipality is largely agriculture based and over 60.0% of the residents engage in subsistent farming as means of livelihood. Majority of the farmers (84.2%) engage in crops farming while 46.4% do livestock rearing (population and housing census, 2010). They rear animals like the cattle, sheep, goats, pigs and poultry especially Guinea fowls. They also do weaving of smocks and other traditional wears, general merchandising of goods and agro processing, mostly Shea butter extraction from Shea nuts. These activities are mainly on small scale bases which affects their social economic status. It affects their ability to access health services in the private facilities which are rather more in the municipality. Most of these private facilities are on fee paying bases.

3.2.7 Health Care System

The administration of the health system in the municipality is handled in three levels. This comprises of the municipal, sub-municipal and the community levels. Top of the structure is the municipal health management Team(MHMT) which oversees the overall health activities of the municipality. Some of these activities includes; in-service training of staffs, monitoring projects and routines health activities among others. The MHMT also conducts operational research and share the findings with other agencies that could assist solve the challenges identified. Some of these bodies often includes the Non-Governmental Organizations (NGOs) in health provision and promotion.

To facilitate running of health programmes, the municipal has been further subdivided into six sub-municipals set ups known as the sub-municipal health management teams (SHMT). These teams are responsible for the implementation of all health activities with the support from the



municipality. The following are the six sub-municipals in the Sangnarigu municipality: Taha, Kamina, Barbaga, Choggu, Malshegu and Garizegu sub-municipals.

The static and the outreach activities, child welfare, diseases control, surveillance, reproductive health, health education and promotion activities are controlled by the SMHMT. They also supervise the CHVS and TBAS in their catchment area.

The community health service provision rests largely on the sub-municipal staffs, the trained community health volunteers and the TBAs.

There are 36 health facilities distributed across the Municipality to render health care to the people. These facilities are categorized into CHPS zones, health Centres, Poly clinics, hospitals and maternity homes, which render largely PHC in the Municipality. The Secondary and tertiary health care facilities are absent in the Municipality. The table 3.1 shows the detail distribution of the health facilities in the municipality.

Table 3: 1 Distribution of Health Facilities in the Sangnarigu Municipality, 2018 report

Indicator	Number
Demarcated CHPS	23
Maternity Homes	2
Hospitals	8
Polyclinics	1
Health Centres	5
Clinics	2
Total	36



3.2.8 The CHPS System

The CHPS demarcation is almost in line with the electoral areas of the municipality as stipulated by the 2016 Ghana CHPS policy from the ministry of health. In total, there are 23 CHPS zone of which 18 are functional and 5 non-functional. Of the functional zones, 12 of them have compounds and 6 have no compounds.

As at 2018, there were 309 health staffs in the Sangnarigu municipality as shown by table 3.2.

Table 3. 2: Health Staff Categories in The Municipality as at March 2019

Staff Category	2015	2016	2017	2018	REMARKS
DDHS	1	1	1	1	
Public Health Nurse	1	1	1	1	
Physician Assistant-Medical	0	1	2	2	1 on study leave
Community Health Nurses	67	78	86	76	31 on study leave
Enrolled Nurses	96	110	128	139	28 on study leave
Professional Nurses	5	21	30	42	1 on study leave
Midwives	18	21	23	43	1 on study leave
T.O Community Mental Health	3	3	5	5	1 on study leave
Total	191	236	276	309	

3.1 Study Design

From September 2018 to July 2019, a cross sectional descriptive study was carried out in the Sangnarigu Municipality of the northern region of Ghana to determine the role of functional CHPS in health care delivery in the municipality. It is a quantitative study to illicit snapshot information about the subject matter in the municipality.



3.3 Study Population

The ages of the healthcare providers vary from 20 to 44 years while that of the community members ranges from 30 years to 54 years.

With the healthcare providers, 99 of the respondents were Muslims whilst 22 were Christians.

Community health volunteers however, 25 were Muslims and 7 Christians in the municipality.

As many as 101 of the healthcare providers were married and singles 20. Twenty-five (25) ,24 of the community health volunteers were married as against 8 singles.

All of the healthcare providers attained tertiary education since they were all nurses whose basic qualification is tertiary education. This cannot be said of the community health volunteers who had most of the respondents not in tertiary education. Those not with formal education were 7, Basic education 14, Secondary 10 and tertiary 1

3.4 Sample Selection

The study targets health workers of functional CHPS compounds and community health volunteers of communities where functional CHPS compounds are operational. All the 120 nurses assigned to the 18 functional CHPS zones in the Sangharigu Municipality were included in the study. Additionally, all the leaders of the 6 sub-municipals who supervise the CHPS activities on daily bases were also included in the study.

Two community health volunteers in each functional CHPS zones were randomly selected for the study summing up to 36 volunteers. At each CHPS zone, the community health volunteers' names were written in pieces of paper and mixed together into a box, then these names were randomly chosen without replacement. The first two names picked from the box were contacted to answer the questionnaires and if there was an objection, then the process would repeat to get a replacement. By this they all stood equal chances of being part of the study there by eliminating selection bias.



The inclusion of the community health volunteers was basically used to verify the answers and the responses from the health workers to ascertain veracity or otherwise of their responses. In all 162 respondents took part in the study. The table 3.4 summarizes the category of the participants and their respective numbers that took part in the study.

Table 3. 3 Number of participants

S/N	Participant	No
1	Supervisors of CHPS	6
2	Nurses	120
3	Community Health Volunteers	36
Total		162

3.5 Data Collection Tools

Two structured questionnaires were used to collect the data from the respondents. One for the community health volunteers (appendix B) and the other for the healthcare providers (appendix A). These two questionnaires were the same in content except for few wording differences to make meaning on the ground and clearer to the respondents.

This makes it possible to crosscheck the responses to ascertain the veracity or otherwise of the respondents.

3.6 Data Collection Procedure

The data was collected from September 2018 to July 2019. An introductory letter obtained from the Department of Community Health and Family Medicine, University for Development Studies (UDS) explaining the purpose of the research was sent to the Municipal Director of Health, Sagnarigu. The unit in-charges and their staff were informed about the study and their assistance



sought. A questionnaire in appendix A was used to collect the data from the 126 health staff selected. Another questionnaire in appendix B was used to obtain data from the 36 Community Health Volunteers randomly selected from each CHPS zone of the 18 functional zones.

Repeated visits to the facilities were carried until, all staff were interviewed. For the CHPS without compounds, staff were interviewed at outreach points.

The sub-municipal leaders were met at the health Centres to answer the questionnaires at their offices.

In the schools, CHPS zones like the BACE and TRACE CHPS, the health tutors were used as the volunteers since they monitor the day to day activities of the CHPS compound.

3.7 Inclusion Criteria

Inclusion criteria were:

- All nurses who work in the 18 functional CHPS zones
- Community Health Volunteers
- Sub-municipal leaders

3.8 Exclusion Criteria

The exclusion criteria were:

- Nurses who do not work in CHPS zones
- Non sub-municipal leaders

3.9 Data Quality Assurance

In order to assure data quality, the questionnaires were pre-tested in the Vitting submetro in the Tamale Metropolis which has similar characteristics as the Sangnariigu Municipality. All ambiguous questions were eliminated to finalize the questionnaires. The data enumerators were



trained on our protocols and data doubly entered in the computer software to eliminate data entry errors.

3.10 Validity And Reliability

Content validity was addressed by making the questionnaire available to my supervisors and colleague students for proofreading. The questionnaires were piloted involving 20 respondents in Tamale Metropolitan in Vitting Sub-metro of Health to ensure that all ambiguous questions and mistakes were corrected before administering to the study participants.

3.11 Ethical Consideration

No formal ethical clearance was obtained for the study. However, an introductory letter obtained from the department of Community Health and Family Medicine, SMHS/UDS sought permission from the Sangnarigu municipal health director to gain access to the CHPS zones and the staff to conduct the research activity. The letter was reviewed and approved by the Municipal Director of Health Service before it was disseminated to the CHPS zones through the sub-municipal heads. The municipal director also approved the questionnaires before they were administered.

To ensure privacy and confidentiality of the respondents, they were not required to provide their names or the names of the facilities they worked in. there was no provision for names of the respondents in the data collection tools and therefore no clues were provided for someone to trace the source of information. This guaranteed that their views and opinions were held with outmost level of confidentiality.

Participants were not coerced in taking part in the study against their will and they also reserved the right to participate in the study or withdrawn from the study at any time. They were made to know that their participation in the study was by their free will and absolutely voluntary. Lastly,



their consent was fully solicited by allowing them to sign the consent form before they answered the questionnaire.

3.12 Data Analysis

The data was coded and entered into the SPSS version 21, the variable view where the variables were all defined. Before the entry, the data was checked to eliminate possible sources of error so as to avoid double and wrong entries.

The data was then analyzed according to the objectives of the study.

Some of the analytic manipulations implored were mainly split analysis, cross tabulations and proportions to depict which CHPS zone type renders wider scope of services to the communities.

The data was presented in tables, bar graphs and proportions.



CHAPTER FOUR

RESULTS

4.0 Introduction

This fourth chapter presents the results obtained from the analysis of the data. It begins with the demographic characteristics of the respondents, scope of services provided at the CHPS zone, effects of the rainy season on CHPS healthcare delivery, sources of drinking water in the municipality across seasons and the time access of the community to a healthcare provider.

4.1 Demographic Information

This part shows the results on demographic characteristics of the respondents which include, level of education, gender, age, marital status and the religious affiliation. The table 4.1 shows the demographic characteristics of the healthcare providers and table 4.2 the community health volunteers demographic characteristics.



Table 4.1: Demographic Characteristics of Healthcare providers

Variable	Frequency (N)	%N
Age group		
20-24	15	12.4
25-29	51	42.1
30-34	39	32.2
35-39	15	12.4
40-44	1	0.9
Total	121	100
Gender		
Male	23	19.0
Female	98	81.0
Total	121	100
Religion		
Christian	22	18.2
Muslim	99	81.8
Total	121	100
Marital Status		
Single	20	16.5
Married	101	83.5
Total	121	100
Educational Status		
Tertiary	121	100

Of the 121 respondents included in this study, 15 respondents representing 12.4 % were within the minimum age category of 20-24 whereas (51) making up of 42.1 % fell within the age category of 25-29 comprising the majority. Thirty-nine (39) respondents also representing 32.2 % were within the age group of 30-34 whilst 15 respondents (12.4%) were within the age category of 35-39 with 1 respondent representing 0.9 % falling within the age category of 40-44.

On gender, females dominated with 81. % as against males of 19%. It is further noted that 18.2 % of the respondents were Christians whilst 99 respondents representing 81.8 % were Muslims as at the time this study was carried out. Taking marital status of respondents into consideration, it revealed from the table that 20 respondents (16.5 %) were single whereas 83.5 % were married.



On the educational status of the respondents, it is noted that all the respondents included in the study have attained formal education up to the tertiary level. The community health nurses and the enrolled nurses were also considered tertiary certificate holders since they are all post-secondary school certificates holders.

Table 4.2: Demographic Characteristics of Community Volunteers

Variable	Frequency (N)	%N
Age group		
30-34	8	25.0
35-39	5	15.6
40-44	3	9.4
45-49	9	28.1
50-54	7	21.9
Total	32	100
Gender		
Male	9	28.1
Female	23	71.9
Total	32	100
Religion		
Christian	7	21.9
Muslim	25	78.1
Total	32	100
Marital Status		
Single	8	25.0
Married	24	75.0
Total	32	100
Educational Status		
Non educated	7	21.9
Basic school	14	43.8
Secondary	10	31.3
Tertiary	1	3.0
Total	32	100



From the table 4.2 above, it is noted that 8 respondents representing 25.0 % were in the age category of 30–34 with 7 respondents representing 21.9 % also falling within the age group of 50-54. It is also noted on the table above that 9 respondents representing 28.1 % were males whilst 71.9 % were females by gender.

On religion, 7 respondents representing 21.9 % were Christians whilst 25 respondents (78.1%) were Muslims. Information from the table also indicates that 8 respondents representing 25.0 % were single whereas 75.0 % were married. Finally, on the table, 21.9% of the volunteers have had no taste of formal education whereas 43.8 % have had formal education up to the basic school (primary and JHS) level. 31.3 % had education up to the secondary level with only 3 % attaining formal education up to the tertiary level.



Table 4. 3: Health care providers on CHPS zone Categorization

Variable	Frequency (N)	%N
Type of CHPS zone		
Structured CHPS zone (with Compound)	99	81.8
Non Structured CHPS zone (No Compound)	22	18.2
Total	121	100
Stay in Community		
Yes	73	73.7
No	26	26.3
Total	99	100
Population of CHPS zone		
1001 – 2000	19	15.7
2001 – 3000	18	14.9
4001 – 5000	8	6.5
5001 – 6000	6	5.0
6001 - 7000	37	30.6
Above 7000	33	27.3
Total	121	100
Number of communities		
1-3	31	26.0
4-6	47	39.0
7-9	43	35.0
Total	121	100

It is revealed from the above table that 99 respondents representing 81.8 % indicated their CHPS Zones were structured with compounds whereas 18.2 % of respondents indicated they were working in non-structured CHPS zones with no compounds. It is further noted that 73.7% of the respondents indicated they were staying with community members every day whereas 48 respondents representing 26.3 % indicated they were not staying with the community members every time. Table 4.3 above contains further details on the CHPS zone categorization.



Scope of Health Care Services Delivered at the CHPS level in the Sagnarigu Municipality

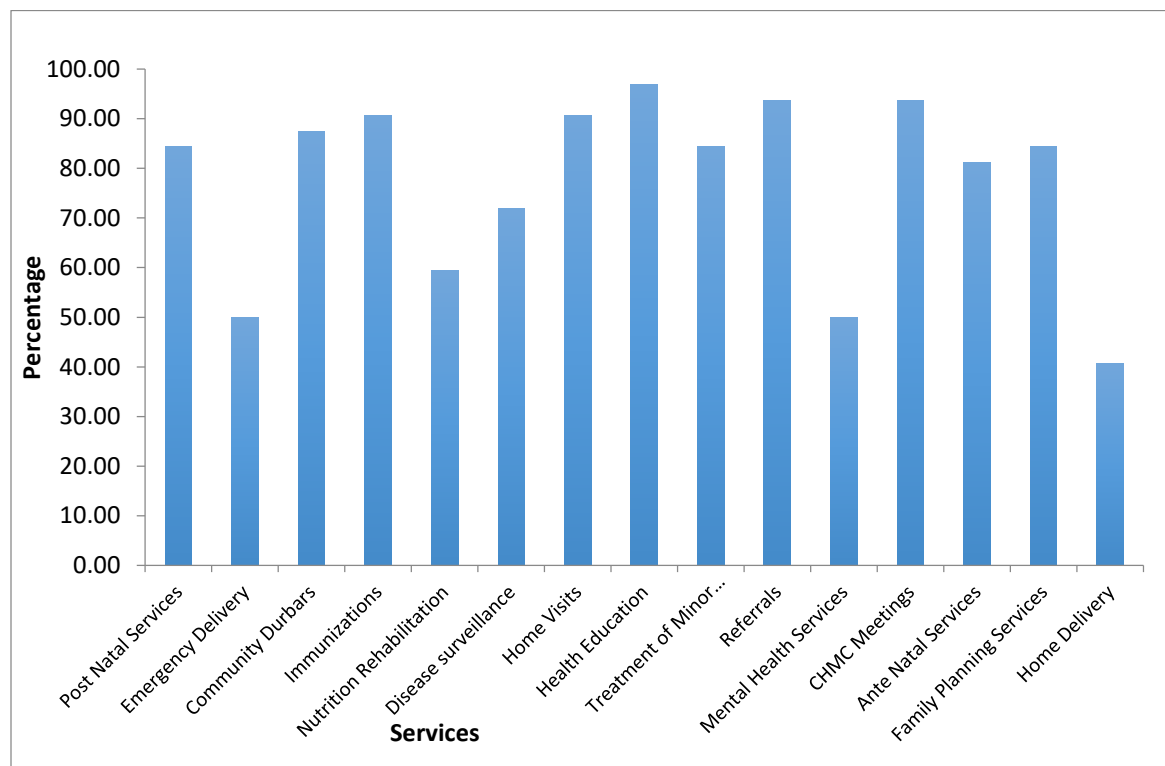


Figure 4.1: Scope of Health Care Services Delivered at the CHPS level in the Sagnarigu Municipality.

The above figure 4.1 shows the range of the services provided in the Sagnarigu municipality. The most service provided includes health education, CHMC meetings and immunization services with the least provided being the mental health, emergency home deliveries and nutritional rehabilitation.



Table:4.4 Comparing the Service provision of CHPS Zones with compounds as against the Non-Structured CHPS zones in service provision.

Service	Structured CHPS zone (With Compound)		Non Structured CHPS zone (No Compound)		Total	
	Frequency (N)	%N	Frequency (N)	%N	Frequency (N)	%N
Treatment of Minor ailments	87	87.9	16	72.7	103	85.1
Health promotion	93	93.9	22	100	115	95.0
Immunizations	89	89.9	22	100	111	91.7
Community Durbars	87	87.9	22	100	109	90.1
Post Natal Services	83	83.8	22	100	105	86.8
Emergency Delivery	74	74.7	3	13.6	77	63.6
Health Education	97	98.0	22	100	119	98.3
Home Visits	84	84.8	22	100	106	87.6
Referral	94	94.9	22	100	116	95.9
Disease surveillance	46	46.5	22	100	92	76.0
Nutrition Rehabilitation	46	46.5	22	100	68	56.2
Family planning services	83	83.8	22	100	105	86.8
Antenatal services	85	85.9	20	90.9	105	86.8
Mental health services	55	55.6	8	36.4	63	52.1



On the treatment of minor ailments 87.9% of the CHPS zones with compounds said they perform the services as against 72.7% of the respondents who work in the non-structured CHPS zones who treat minor ailments.

On health promotion activities 93.9% of the respondents who reside in CHPS compounds provide the service whilst the 100% of those who work in zones without compounds, perform health promotion activities.

On disease surveillance, family planning, nutrition, referrals, postnatal care, home visits and immunizations, the functional CHPS zones without compounds outperformed the CHPS with compounds recording 100%.

The structured zones however did better in the area of treatment of minor ailments, mental health activities and conducting of emergency delivery.

The most services provided in the CHPS zones is health education with 98.3% and the least services provided include the mental health service with 52.1%, nutritional rehabilitation comprising 56.2% and emergency delivery of 63.6%. The emergency delivery and the mental health services are worst provided in the non-structured CHPS zones in the Sangnariagu municipality with 13.9% and 36.4% respectively.

Table 4.4 above shows the details of the comparisons of the range of services provision between the structured and non-structured CHPS zones.



Table 4.5 community health volunteers Responses on confirmation of CHPS zone categorization.

Variable	Frequency (N)	%N
Existence of CHPS compound in respondent zone		
Yes	25	78.1
No	7	21.9
Total	32	100
If yes, do the nurses stay there for 24 hours with the community members		
Yes	16	50.0
Not Applicable	16	50.0
Total	32	100
Population of respondent CHPS zone		
1001 – 2000	7	21.9
2001 – 3000	5	15.6
4001 – 5000	2	6.3
5001 – 6000	3	9.4
6001 – 7000	7	21.9
Above 7000	8	25
Total	32	100
Number of communities classified under respondent zone		
1-3	8	25.0
4-6	16	50.0
7-9	8	25.0
Total	32	100

It is revealed from the above table that 25 respondents representing 78.1 % indicated they have CHPS Compound in their zone whilst 7 respondents representing 21.9 % stated otherwise. Taking Nurses stay in the community into consideration, it revealed that 16 respondents representing 50.0 % said the health workers stay in the community up to 24 hours with the community members while 16 of them (respondents) stated otherwise representing (50.0%).

On population of CHPS zones, it is noted that 7 respondents representing 21.9 % were in zones with population of 1001-2000 whereas 5 (15.6%) of the respondents were in zones with population of 2001-3000. Two (2) respondents representing 6.3 % were in zones with population of 4001-5000 whilst 9.4 % of the respondents were in zones with population of 5001-6000. Also,



7 respondents representing 21.9 % were in zones with population of 6001-7000 whereas 25.0 % were in zones with population of more than 7000. Table 4.4 above shows the detailed information of the confirmation of the health service provision in the CHPS zones.

Table 4. 6 community health volunteers Responses on confirmation of service provision in their communities

Post Natal Services	Yes	27	84.4
	No	5	15.6
Total		32	100.0
Emergency Delivery	Yes	16	50.0
	No	16	50.0
Total		32	100.0
Community Durbars	Yes	28	87.5
	No	4	12.5
Total		32	100.0
Immunizations	Yes	29	90.6
	No	3	9.4
Total		32	100.0
Nutrition Rehabilitation	Yes	19	59.4
	No	13	40.6
Total		32	100.0
Disease surveillance	Yes	23	71.9
	No	9	28.1
Total		32	100.0
Home Visits	Yes	29	90.6
	No	3	9.4
Total		32	100.0
Health Education	Yes	31	96.9
	No	1	3.1
Total		32	100.0
Treatment of Minor Ailments	Yes	27	84.4
	No	5	15.6
Total		32	100.0
Referrals	Yes	30	93.8
	No	2	6.3
Total		32	100.0
Mental Health Services	Yes	16	50.0
	No	16	50.0



Total		32	100.0
Community Health Management Committee (CHMC) Meetings	Yes	30	93.8
	No	2	6.3
Total		32	100.0
Ante Natal Services	Yes	26	81.3
	No	6	18.8
Total		32	100.0
Family Planning Services	Yes	27	84.4
	No	5	15.6
Total		32	100.0
Home Delivery	Yes	13	40.6
	No	19	59.4
Total		32	100.0

From the table, 84.4% of the respondents indicated they provide post-natal services at their CHPS zones whereas 15.4% of the respondents indicated otherwise. It is also noted that 50% of the respondents indicated their zones provide emergency delivery service to community members whilst 50% of the respondents indicated otherwise. On community durbars, 87.5% of the respondents indicated their zones provide that service to the community members whereas 12.5% of them indicated such service is not provided by their CHPS zones. Twenty-Nine (29) respondents indicated immunization service representing 90.6% is provided to community members whereas 3 making up of 9.4% of the respondents indicated otherwise.

It is revealed from the study that on nutrition rehabilitation, 19 respondents indicated their zones provide such service to community members whereas 13 respondents indicated otherwise. Also, 23 respondents indicated their zones provide disease surveillance service whilst 9 respondents indicated their zones do not provide such service to community members. 29 respondents indicated their zones provide home visits to community members whereas 3 respondents indicated otherwise. It is further noted from the table that 31 respondents indicated their zones provide health education to community members whilst 1 respondent indicated otherwise.



it is revealed that out of the 121 respondents included in this study, 31 of them (respondents) were of the firm believe that their zones provide health education service to community members whereas 1 respondent indicated their zones were not providing such service to community members. On treatment of minor ailments, 27 respondents indicated their zones provide such service to community members whereas 5 respondents indicated their zones were not providing such service and also on referrals, 30 respondents indicated their zones provide such service to the community members whereas 2 respondents indicated otherwise. Sixteen (16) respondents indicated their zones provide mental health service to community members whereas 16 respondents indicated otherwise. Table 4.6 above provides further details.

Table 4.7 key factors that affect CHPS healthcare delivery in Sangnarigu municipality

Variable	Frequency (N)	%N
Do you think rainy season affects healthcare delivery in your area		
Yes	97	80.2
No	24	19.8
Total	121	100
Give reasons for your answer in question 27 above		
Not applicable	23	19.0
Bad roads	41	33.9
Community members travel to engage in farming activities	9	7.4
Because there is no structure	27	22.3
Outreaches cannot be held due to the rains	2	1.7
Total	121	100
Where do you hold your outreach sections		
Under a tree	99	81.8
Classroom	4	3.3
Structure	6	5.0
Open Space	12	9.9
Total	121	100
When it is raining does it stop outreach sections		
Yes	104	86.0
No	17	14.0
Total	121	100



Table 4.8: Sources of Drinking Water in the Sangnarigu municipality

Source of Drinking water	Frequency (N)	%N
Dams as a source of drinking water for respondent	12	37.5
Wells as a source of drinking water for respondent	10	31.3
Pipe borne as a source of drinking water for respondents	31	96.9
Borehole as a source of drinking water for respondents	21	65.6
Any other source of drinking water for respondent	4	12.5
Does the drinking water get contaminated during the rainy season	13	40.6
Refuse dumps been carried by flood into drinking sources	14	43.8
Feaces from open defecation carried by running water into drinking source	19	59.4
Public toilets carried by running water into drinking sources	8	25.0
Landfill site wash carried into dams and wells use as drinking sources	9	28.1

The source of drinking water in the CHPS Zones, revealed that 12 of them said their source of drinking water is from Damps representing 37.5 % whilst 20 of them stated otherwise representing 62.5 %.

Again on Wells, 10 of them (respondents) said their source of drinking water is from Wells whilst 22 of them said no. About source of water from pipe borne and it was revealed that 31 of them said yes they get their water from pipe borne representing 96.9 %.

It was sort out to know whether water get contaminated during rainy season and it was indicated that 13 of the respondents said yes their source of water get contaminated during rainy season representing 40.6 % whereas 19 of them stated otherwise representing 59.4 %. Table 4.8 above contains the details of the sources of drinking water of the CHPS zones in the Sangnarigu municipality.



Table: 4.9: The effects of the rainy season on CHPS healthcare delivery, healthcare provider's perspective

Variable	Frequency (N)	%N
Do you think rainy season affects healthcare delivery in your area		
Yes	97	80.2
No	24	19.8
Total	121	100
Give reasons for your answer in question 27 above		
Not applicable	23	19.0
Bad roads	41	33.9
Community members travel to engage in farming activities	9	7.4
Because there is no structure	27	22.3
Outreaches cannot be held due to the rains	2	1.7
Total	121	100
Where do you hold your outreach sections		
Under a tree	99	81.8
Classroom	4	3.3
Structure	6	5.0
Open Space	12	9.9
Total	121	100
When it is raining does it stop outreach sections		
Yes	104	86.0
No	17	14.0
Total	121	100
Do you have hard to reach areas during the rainy season		
Yes	51	42.1
No	70	57.9
Total	121	100
If yes to question 31, which communities		
Not applicable	75	62.0
Dugshegu	2	1.7
Kpene, Kasalgu, Dugshegu	10	8.3
Kpawumo	13	10.7
Yapala	2	1.7
Salamba	2	1.7
Batanyili	10	8.3
Katariga	3	2.5
Dabongsei	3	2.5
Total	121	100
What is the cause of the blockage		
Flooding	17	14.0
Road not Motor able	34	28.1



Not applicable	70	57.9
Total	121	100
Is there any alternative ways of delivering healthcare to those communities during the rainy season (Hard to reach in rainy season)		
Yes	12	9.9
No	76	62.8
Not applicable	33	27.3
Total	121	100
State if any		
Not applicable	106	87.6
Reschedule the outreach day	11	9.1
Total	121	100
For how long are you prevented from going there		
1 month	16	13.2
2 to 4 months	6	5.0
5 to 7 months	4	3.3
Not applicable	84	69.4
Total	121	100

On whether rainy season affects healthcare delivery in the CHPS zone, 97 of the respondents representing 80.2 % indicated it does whilst 24 of them (respondents) representing 19.8 % stated otherwise. Reasons were sought on why they said rainy season affects healthcare delivery and on this, 41 respondents representing 33.9 % indicated the roads are not good during rainy seasons whereas 9 respondents making up of 7.4% stated that most of the community members travel to engage in farming activities during the rainy seasons which affects healthcare. Also, 27 respondents representing 22.3 % indicated lack of structure in the communities affect healthcare delivery whilst 2 respondents said outreaches cannot be held due to the rains during the season.

Ninety-nine (99) respondents representing 81.8 % stated they hold outreaches within the communities under trees whereas 4 respondents making up of 3.3% indicated they hold them (outreaches) in classrooms. Six (6) respondents (5.0%) indicated they hold outreaches at the health structures whilst 12 respondents representing 9.9 % stated they hold it at open places. One hundred and four (104) respondents making up of 86% further indicated outreach sections are stopped when it rains whereas 14.0 % (17) of respondents indicated otherwise.



Fifty-one (51) respondents representing 42.1 % indicated they have hard to reach communities within their zones during rainy seasons whereas 57.9 % indicated otherwise. The communities that are hard to reach during rainy season as the respondents further indicated were Dugshegu, Salamba, Kpene, Kasalgu, Yapala, Kpawumo, Batanyili, Katariga and Dagbongsei coming from 10, 2, 10, 10, 2, 13, 3 and 3 respondents respectively representing 8.3, 1.7, 8.3, 8.3, 1.7, 10.7, 2.5 and 2.5 %s.

These were the reasons why it was hard reaching this communities, 17 of the respondents said due to flooding whereas 34 respondents representing 28.1 % indicated the roads were not motor able. From the table, it is noted that 12 respondents representing 9.9 indicated there are other alternatives available to them (respondents) to deliver healthcare to hard to reach communities during rainy season whereas 62.8 % of the respondents indicated otherwise. Eleven (11) representing 9.1 % of further indicated they reschedule the outreach days.

On number of days, healthcare providers are prevented from going to communities during rainy seasons, 16 of them said 1 month, 6 of them said 2 to 4 months and 4 indicated 5 to 7 months. Table 4.6 above contains the detail information of the healthcare providers' perspective of the effects of the rainy season in CHPS healthcare delivery in the municipality.



Table: 4. 10 Community health volunteers Responses on the effects of the rainy season on CHPS healthcare delivery

Variable	Frequency (N)	%N
Do you think rainy season affects healthcare delivery in this CHPS Zone?		
Yes	29	90.6
No	3	9.4
Total	32	100
Give reasons for your Answer in question 27 above		
Not applicable	4	12.5
Bad roads	11	34.4
Community members travel to engage in farming activities	5	15.6
No structure	10	31.3
Total	32	100
Place of outreach sections		
Under a tree	25	78.1
Classroom	2	6.3
Structure	2	6.3
Open Spaces	3	9.4
Total	32	100
When it is raining does it stop your outreach section		
Yes	27	84.4
No	5	15.6
Total	32	100
If yes to question 30 above, explain		
Flooding	5	15.6
Road not Motor able	7	21.9
Total	32	100
Do you have hard to reach areas during the rainy season		
Yes	11	34.4
No	21	65.6
Total	32	100
If yes to question 32, which communities		
Not Applicable	21	65.6
Dugshegu	1	3.1
Kpawumo	4	12.5
Yapala	2	6.3
Batanyili	2	6.3
Dabongsei	2	6.3



Total	32	100
Are Health workers always blocked from reaching certain communities in this zone during the rainy season		
Yes	4	12.5
No	16	50
Not Applicable	12	37.5
Total	32	100
If yes what is the Blockage		
Flooding	28	87.5
Road not motorable	3	9.4
999	1	3.1
Total	32	100
For how long are Health staffs prevented from reaching such communities		
1 month	4	12.5
2 to 4 months	1	3.1
5 to 7 months	1	3.1
Not Applicable	23	71.9
Total	32	100

Perception about whether rainy season affects healthcare delivery in the CHPS zone, it was indicated that 29 of the respondents representing 90.6 % said yes it affect healthcare whilst 3 of them (respondents) representing 9.4 % stated otherwise. Reasons was given on why they said rainy season affects healthcare delivery was that during the rainy season their roads are not good representing 34.4 %, also 5 of them stated that most of the community members travel to engage in farming activities which affects healthcare whereas 10 of the respondents representing 31.3 % said because there is no structure to enhance their health.

It was asked to know their location at where they hold their outreach sections and the responses were given as, 25 of them representing 78.1 % said they hold it under a tree, 2 said they hold at a classroom, respondents who said the hold theirs at structure were 2 representing 6.3 % whereas 3 of them (respondents) representing 9.4 % said they hold it Open spaces. Regarding when it rains does it stop their outreach sections and it was indicated that 27 of them said yes making up of 84.4% whilst 5 said no representing 15.6 %.



On the issue of finding it difficult to reach areas during rainy season and it was revealed that 21 of the respondents representing 65.6 % said yes whereas 1 of them stated otherwise representing 3.1 % as well.

The communities that are hard to reach during rainy season were sought for, 21 of them representing 65.6 % were exempted from answering the question, 1 of them said Dugshegu community is hard to reach during rainy season, Kpawumo was represented by 12.5 %, Yapala also was 6.3 %, Batanyili was 6.3 %, whilst Dagbongsei was 6.3 % respectively. These were the reasons why the communities were said to be hard to reach during the rainy season, 5 of the respondents said due to flooding, another 7 respondents representing 21.9 % indicated the roads were not Motor able whereas 20 of them representing 62.5 % were exempted. The table 4.6 above shows the details of the effects of rainy season on CHPS healthcare delivery, the community health volunteers' perspective.



Table 4. 11 Time access of the community to a healthcare providers' perspective

Variable	Frequency (N)	%N
How often do you go to your CHPS Zone		
Everyday	86	71.1
Weekly	30	24.8
Monthly	5	4.1
Total	121	100
How long does an outreach section last		
4 hours	43	35.5
6 hours	26	21.5
8 hours	50	41.3
10 hours	2	1.7
Total	121	100
Do you have hard to reach areas in your CHPS Zone		
Yes	30	24.8
No	91	75.2
Total	121	100
For how many months are you not able to render services to the hard to reach areas in your CHPS zone in a year		
2 months	11	9.1
3 months	9	7.4
4 to 5 months	3	2.5
Not applicable	87	71.9
Total	121	100
Apart from outreach sections, how often do you go to the communities		
Daily	12	9.9
Weekly	65	53.7
Monthly	42	34.7
Not applicable	2	1.7
Total	121	100
How long do you stay there when you go		
4 hours	61	50.4
6 hours	16	13.2
1 to 2 hours	19	15.7
Not applicable	3	2.5
8 hours	18	14.9
Total	121	100
Do you go to work on weekends		
Yes	50	41.3
No	71	58.7
Total	121	100
Do you work on National Holidays		
Yes	51	42.1
No	70	57.9
Total	121	100
How many health staffs are you in the Zone		
1	4	3.3



2	5	4.1
3	26	21.5
4	6	5
5	17	14
6	3	2.5
7	4	3.3
8	15	12.4
9	24	19.8
10	5	4.1
18	8	6.6
18	2	1.7
Total	121	100
Do you take your annual or maternity leave		
Yes	114	94.2
No	7	5.8
Total	121	100
When you are on leave does it lead to the closure of the facility		
Yes	3	2.5
No	118	97.5
Total	121	100
Do you use any alternative means to reach your community members		
Yes	61	50.4
No	60	49.6
Total	121	100
If yes to question 58, state which means		
The use of mobile phones	10	8.3
Motorbikes	19	15.7
Not applicable	63	52.1
Durbars	6	5
Through CHV	7	5.8
Reschedule the outreach	3	2.5
Announcements in mosque, churches	5	4.1
Arrange with the client to meet where service delivery is possible	2	1.7
Total	32	100

From the table, on how often do healthcare providers go to their CHPS zones to deliver health services revealed that, 86 of the respondents said Everyday representing 71.1 %, 30 of them said weekly representing 24.8 % whereas 5 of them said Monthly representing 4.1 % as well. Again how long an outreach sections last were also sort out and it was revealed that, 43 of them (respondents) representing 35.5 % said 4 hours, 26 of them said 6 hours representing 21.5 %, 50 of them said 8 hours representing 41.3 % and 2 of them said 10 hours respectively. On how hard

to reach areas in the community, 30 of them indicated that it is so hard to reach and 91 of them representing 75.2 % stated otherwise.

Taking how many months that healthcare providers are not able to render services to the hard to reach areas in the CHPS zone into consideration, 9.1 % indicated 2 months, 7.4 % said 3 months, 2.5 % indicated 4 to 5 months and 71.9 % were exempted. Apart from outreach sections how often do they go to the communities and the responses gotten was, 9.9 % stated daily, 53.7 % stated weekly, 34.7 % said monthly whilst 1.7 % stated none.

It is seen from the table above that healthcare providers stay with the community members as 61 of the respondents indicated 4 hours representing 50.4 %, 16 of them said 6 hours representing 13.2 %, 1 to 2 hours responses were 19 representing 15.7 %, 18 of them said 8 hours whereas only 3 respondents representing 2.5 % were exempted as well. About National Holidays, 51 of them (respondents) representing 42.1 % said that healthcare providers do work on Holidays whereas 70 of them representing 57.9 % stated otherwise.

Taking their annual or maternal leave into account, 114 of the respondents said yes they do take their annual leave representing 94.2 % whereas 7 of them (respondents) stated otherwise representing 5.8 % as well. On the matter of their leave whether it leads to the closure of the facility or not, 3 of the respondents said yes representing 2.5 % whereas 118 of them stated otherwise representing 97.5 %. Other means to reach the community members either yes or no, and it was revealed that, 61 of the respondents said yes there are other means that they use to reach the community members representing 50.4 % whilst 60 of the respondents stated otherwise representing 49.6 %.

The means as to which they used to reach the community members were also included in the study and the results gotten was, 10 of the respondents said they reach the community members



through the use of mobile phones representing 8.3 %, 19 of the said through motorbikes representing 15.7 %, 63 respondents representing 52.1 % were exempted, 6 of them said through Durbars representing 5.0 %, 7 indicated through community health volunteers (CHV) representing 5.8 %, 3 stated through reschedule outreach representing 2.5 %, 5 said through announcements in mosque, churches representing 4.1 %, 2 said they arrange with the client to meet where service delivery is possible representing 1.5 % respectively. Table 4.7 contains the detailed information about time access of the community to health workers' perspective.

Table: 4. 12 Community health volunteer confirmation of time access of a healthcare provider to the CHPS zones

Variable	Frequency (N)	%N
How often does the health staff come to your community or CHPs zone		
Everyday	13	40.6
Weekly	10	31.3
Monthly	9	28.1
Total	32	100
How long does an outreach section last?		
4 hours	5	15.6
6 hours	21	65.6
8 hours	6	18.8
Total	32	100
For how many months are the Nurses not able to render services to the hard to reach areas in your CHPS zone in a year?		
1 month	6	18.8
one week	11	34.4
Not applicable	15	46.9
Total	32	100
When was the last date a health staff came to your community or zone?		
Last week	17	53.1
Last month	6	18.8



Yesterday	5	15.6
Today	4	12.5
Total	32	100

Apart from outreach sections, how often do health staffs come here for health activities?

Everyday	20	62.5
Weekly	8	25
Monthly	4	12.5
Total	32	100

How long do they stay here when they come?

4 hours	9	28.1
6 hours	10	31.3
8 hours	4	12.5
2 hours	9	28.1
Total	32	100

Do they come to work on weekends

Yes	6	18.8
No	26	81.3
Total	32	100

Do they work on National Holidays

Yes	5	15.6
No	27	84.4
Total	32	100

How many health staff do you have in this zone?

2	4	12.5
3	11	34.4
6	2	6.3
7	1	3.1
8	3	9.4
9	7	21.9
10	2	6.3
17	2	6.3
Total	32	100

Do they take annual or maternity leave?

Yes	25	78.1
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No	3	9.4
Don't know	4	12.5
Total	32	100
When someone is on leave, does it lead to the closure of the facility?		
No	32	100
Total	32	100
Which time do they start and close from work		
24 hour service	5	15.6
8 am to 2 pm	12	37.5
Only day service	15	46.9
Total	32	100
Do you always meet the CHO anytime people go there for health services?		
Yes	15	46.9
No	17	53.1
Total	32	100
How often does she/he come here to conduct healthcare activities?		
24 hour service	6	18.8
Weekly	10	31.3
Monthly	16	50
Total	32	100

From the table, it was noted on how often healthcare providers go to their CHPS zones to deliver health services which indicated that 40.6 % of the respondents go to work every day, 31.3 of them said weekly. 28.1 % indicated Monthly. Again how long an outreach sections last were also sought and it revealed that 15.6 % said 4 hours, 65.6 % indicated 6 hours and 18.8 % of them indicated 8 hours respectively.

Taking how many months healthcare providers are not able to render services to hard to reach areas in the CHPS zone into consideration, 18.8 % indicated 1 month, 34.4 % said one week, and 46.9 % were exempted. 53.1 % of the volunteers indicated health staff has been to their zone the past week whereas 18.8 % indicated last month. 15.6 % also indicated health staff has been to the



zone on the day before the interviews took place whilst 12.5 % indicated health staff has been to the zone on the day of the interview. Apart from outreach sections how often do they go to the communities and the responses gotten were, 62.5 % stated daily, 2.5 % stated weekly whilst 12.5 % stated monthly.

28.1 % indicated health staffs stay in the zones for 4 hours whereas 31.3 % indicated they stay for 6 hours. Also, 12.5 % stated the health workers stay in the zone for 8 hours with 28.1 % also indicated the staff stays in the zone for 2 hours. About National Holidays, 15.6 % indicated they work on Holidays whereas 84.4 % of them stated otherwise.

The study was also carried out to know the number of health staffs in the CHPS zone and it was revealed that, 5 of them said 2 staffs representing 4.1 %, 26 of them said 3 staffs representing 21.5 %, 6 said 4 staffs representing 5.0 %, 17 said 5 staffs representing 14.0 %, 3 indicated 6 staffs representing 2.5 %, 4 of them said 7 staffs representing 3.3 %, 15 of them said 8 staffs representing 12.4 %, 24 said 9 staffs representing 19.8 %, 5 said 10 staffs representing 4.1 %, 8 said 18 staffs representing 6.6 % whereas 2 of them said 18 staffs representing 1.7 % respectively.

Taking their annual or maternal leave into account, 114 of the respondents said yes they do take their annual leave representing 94.2 % whereas 7 of them (respondents) stated otherwise representing 5.8 % as well. On the matter of their leave whether it leads to the closure of the facility or not, 3 of the respondents said yes representing 2.5 % whereas 118 of them stated otherwise representing 97.5 %. Other means to reach the community members either yes or no, and it was revealed that, 61 of the respondents said yes there are other means that they use to reach the community members representing 50.4 % whilst 60 of the respondents stated otherwise representing 49.6 %.



CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

This chapter subjects the results obtained to further scrutiny in the light of reality of the current trends of the situation. It is in this chapter that attempts are made at suggesting reasons for certain trends that may surface from the data analyzed. As part of the research, some discussion on the exceptional revelations is done to propose scientific bases for some of the findings.

The matter under investigation is to assess the role of functional CHPS zones in healthcare delivery at this point of the country's development. The study area is Sangnariagu Municipality which populaces range from peri-urban to rural in nature.

5.1 Demographic Characteristics of Healthcare Providers

Majority (99.2%) of the respondents are within the working age brackets of 20 to 39 years. With this age group, maximum work output should be expected from the health workers. Expectations of higher work output are further heightened considering the educational background of the respondents. All of them have attained tertiary education. This is so because their training as professionals is at the tertiary level.

On gender, the number of females (81%) healthcare providers far outnumber their male (19%) counterparts. This was not surprising at all since the CHPS activities are dominated by community health nurses. In Ghana, the nursing profession is largely dominated by females this is also consistent with the findings by facts file on health work force in 2008 which found out that 75% of the health workforce was females (Spotlight on statistics, 2008). Considering the fact



that attendees to CHPS compounds are mostly females, attendees are more likely to freely open up themselves to female health workers than their male counterparts. This is especially the case considering the kind of services provided at the CHPS compounds such as antenatal, post-natal, emergency delivery, immunization, among others.

Residents in the research area are predominantly Muslims. Those health workers in the CHPs zones in the municipality are predominantly (81%) Muslims which increases the chance of clients trusting and opening up to health workers should not be overlooked. These findings are consistent with the 2010 population and housing census which also stated that 81% of the residents in the northern region are Muslims. The study also shows that the married among the healthcare providers are more 83.5% than the singles among them. This again is in line with 2010 population and nursing census of the district where married women were more than singles. With the married women constituting within the age group of 25-29 were married 70.1% as compared to 30.7% unmarried (Sagnarigu District Population and Housing Census, 2014).

Aside other demographic information of healthcare providers, this phenomenon helps them better understand the plight of clients as most of them (clients) are also married. It is however worth noting that it would be quite difficult for such married workers to work in odd hours such as at night in the compounds or stay in the communities they work leaving their spouses behind due to the other responsibilities they have as married people.

5.2 Demographic Characteristics of Community Volunteers

Looking at the age brackets of the volunteers in the study area, one would not expect them to be as active as the health care givers. Volunteers who are 40 years and below are only 40.6% compared with those above 40 years. The data shows that majority of the volunteers are above 40 years indicating an aging working group. As such, their productivity level would not be as



much as that of the professional health care givers. The fact that most of the volunteers are female, Muslims and are married increases the likelihood of clients' willingness to open up to volunteers when they (clients) have issues about the CHPS compounds. The educational background of volunteers in the CHPS zones in the municipality is quite encouraging as most of them have been through some formal education.

5.3 Health care providers on CHPS zone Categorization

According to the study, a good number (99/121) making up 81.8% of health care givers selected worked in structured CHPS zones with compounds. This gives an indication that majority of healthcare givers in the study area feel more comfortable and safe and motivated at their work place. The attendance and increase in productivity is envisaged.

Community members in the municipality are more likely to access to healthcare services as the data show that majority (60%) of health workers stay within the community 24/7 which is consistent with CHPS policy direction and also PHC policies throughout the world (GHS CHPS Policy.2010)(T.A. et al., 2013)(Who, 2013)(Asaah & Najim, 2017). It is however worth noting that measures need to be taken to ensure that more health workers are provided with accommodation in the community they work so as to enhance access to healthcare 24/7.

Also worth noting is the unmotorable nature of the roads within the zone especially, during rainy seasons

5.4 Scope of Health Care Services Delivered at the CHPS level in the Sangnari Municipality.

Data collected indicates that CHPS zones in the municipality provide a wide range of healthcare services with over 85% accessibility rate to each of the following services: Family Planning,



Antenatal, Postnatal, CHMC meetings, and referrals, treatment of minor illness, health promotions, health education, home visits, immunizations and community durbars. It is however worth noting that Ghana's CHPS concept does not include services like hypertension, diabetes management, dentistry and health screening as done by other countries such as South Australia.

5.4 community health volunteers Responses on confirmation of service provision in their communities.

Majority (78.1%) of community volunteers confirmed the existence of CHPS compounds in their zones but were sharply divided as to whether nurses stay in the community every day.

Volunteers selected also confirmed that the CHPS zones provide so many healthcare services chiefly among them being health education and the least provided service being Home Delivery. Out of 15 variables looked at under healthcare services at the CHPS zones in the study area, a lot of them are being provided by over 80% accessibility, an indication that community members have good access to varied services at the CHPS zones in the municipality.

5.5 The effects of the rainy season on CHPS healthcare delivery, healthcare providers' perspective.

Over 90% of respondents said rainy season affects their output with majority of them (33.9%) citing bad roads as their reasons for saying so. The next major contributory factor (22.1%) for poor health delivery, according to the data gathered is the lack of structures to house healthcare provision during the rainy season. 80% of respondents confirmed that outreach sessions are not cancelled due to rain in the rainy season. Only 1.7% of the respondents mentioned that they are unable to go for outreach programs due to rains; an indication that rainfall alone does not inhibit their commitment to deliver.



There are no enough facilities to hold outreach sessions in the municipality as 81.8% of them (outreach sessions) are held under trees. This concept of holding services under trees in the rainy season has several effects including lack of privacy and confidentiality. Also, certain services such as Antenatal services are cut out since the pregnant women could not be exposed to the public view.

The study revealed the existence of hard to reach communities in the study area with Kpawumo being one of the communities not easy to reach during the rainy season. Unmotorable roads and flooding has been cited by the study as the major reasons for the difficulty in reaching these communities. The findings are in line with trend of the effects of the rainy season globally, it was found in studies conducted by Patz et al,2000,noted that the effects of the rainy season transcended to river floods in central Europe in 1997 that floods left more than 200,000 people homeless and over 100 dead (Patz et al., 2000)(Greater et al., 2019).

Again, Mukabutera et al,2016, stated that an increased in diarrhea cases resulting in high mortalities globally over 2.5 billion cases per year among children under five years. This he noted occurs more in Africa and south Asia continents with floods(Mukabutera et al., 2016)(The Lancet, 2017)(Asumadu-Sarkodie, Owusu, & Rufangura, 2015).

The study found out that 95% of healthcare providers in the Sangnarigu Municipality have access to pipe borne water as their source of drinking water although not less than 34% of them still drink water from dams, wells and boreholes.

This gives cause for worry as the situation could expose residents to waterborne diseases such as cholera and diarrhea during the rainy season. The susceptibility of residents to catching waterborne diseases during rainy season is aggravated as at least 32% of respondents confirmed



the case of refuse dumps, faeces from open defecation, public toilets are carried by running water into sources of drinking water during rainy season. The plight of residents is also revealed in the study as 38% of the respondents confirmed the falling of houses and residents' risk of getting bitten by snakes increases during the rainy season.

All in all, residents face serious health challenges more in the rainy season as CHPS zones record more (93.4%) cases during rainy season than in the dry season with malaria accounting for up to 63.6% of the cases. These findings are in line with the same from Jones et al, (2007) found that there is high malaria incidence in the rainy season. This is likely due to the fact that community members leave their surroundings bushy with stagnant water all over as 47.1% of respondents attributed the phenomenon to increase in breeding of mosquitoes. Residents in the study area also express their need for more health facilities as 55.4% of respondents suggest the provision of more CHPS compounds in especially, the hard to reach communities as the sure way to mitigate the impact of rainy season on CHPS zones healthcare delivery.

5.6 Community health volunteers Responses on the effects of the rainy season on CHPS healthcare delivery

Responses from selected volunteers confirm that healthcare delivery is adversely affected during the rainy season by especially, inaccessible roads. Community members travelling to farms is also a major factor. Community volunteers also affirmed that there are no enough structures for outreach programs and that even the rain does not hinder their resolve to carry outreach sessions. They also confirmed the existence of hard to reach communities with Kpawumo as the one not easy to reach during the heavy rains period. The Floods and the unmotorable nature of the roads have been cited as the major hindrances to healthcare delivery in those communities. Appropriate measures need be taken to curtail the inaccessible nature of these communities as residents there



risks being completely denied access to healthcare during rainy season as close to 30% of health workers are sometimes prevented from reaching these communities. This is quite worrisome as the lives of residents in these communities are endangered during such periods.

5.6 Factors that Affect Health Care Delivery in the Sangnariagu Municipality

- Unmotorable roads in some of the peri- urban areas in the rainy season.
- Some CHPS zones do not have appropriate skill mix and the numbers to deliver the full packages of the services efficiently leading to low coverages in those services
- Some 34% drink from Unsafe sources of drinking water, polluted dams and wells.
- Inadequate CHPS compounds with accommodation to house the staffs and services for 24hrs.
- Unsafe places for outreach activities since over 96% are conducted under trees.
- Rains negatively affect over 90% of outreach activities in the rainy season.
- Increases in snake bites up to 40% as confirmed by the CHVS the occurrence.
- The non-structured CHPS compounds were found to be the worst performing category since it recorded the least of quantum of service provision in the municipality.
- Increases in malaria and diarrhea cases in the municipality during the rainy season.
- Low mental health, nutritional rehabilitation and emergency delivery services in the municipality.
- Some of the communities get flooded creating inaccessibility to CHPS level healthcare delivery, 87.5% of the community health volunteers bemoan this crisis.



5.7 Sources of Drinking Water in the Sangnarigu municipality

Pipe borne has been identified as the major source of drinking water as the study found out from community volunteers that 96% of community members drink from pipe borne water followed by boreholes. But this scenario does not immune residents from drinking from unsafe water sources. The study found from community volunteers that residents still drink from sources prone to contamination such as dams (37.5%), wells (31.3%), boreholes (65.6%) and any other sources (12.5%). Pollution of sources of drinking water in the study area is due to the washing away of refuse dumps, faeces from open defecation, public toilets and landfill sites by rain water into sources of drinking water. This has the tendency of causing outbreaks of waterborne and sanitation related diseases such as cholera, diarrhea and typhoid. There is also the tendency of increase in clinical cases and its resultant pressure on the already inadequate healthcare centers especially, those in the hard to reach communities.

5.7-time access of the community to a healthcare providers' perspective

A good number (71.1%) of the respondents visit their CHPS compounds on daily bases. This is an indication that community members in the study area stand higher chances of accessing healthcare at the CHPS zones. However, 4.1% of respondents visit their CHPS zones on monthly basis. This leaves much to be desired as the lives of members of such communities are endangered as they may not have adequate access to healthcare. The situation may be due to the hard to reach nature of some communities in the municipality and non-structured CHPS zones which only perform outreach services for EPI. The communities under the unstructured zones are mostly denied the full set of services as prescribed by the CHPS policy which is quite worrying.



Healthcare providers in the study area spent adequate time with clients during outreach sessions. This is evident in the data gathered as majority (64.5%) of respondents spends at least six hours in each outreach session.

The study confirms the availability of hard to reach communities in the study area although they are quite lesser compared with reachable communities. 91 respondents denied their existence and 71.9% of them stating that there is no community in their zones they are not able to reach even for two months within a year. This affirms the assertion that more communities in the municipality have access to healthcare.

Apart from outreach sessions, some (98.3%) healthcare providers also reach out to some communities on daily (9.9%), weekly (53.7%) or monthly (34.7%) basis. There are some (41.3% and 42.1%) who even go to work on weekends and holidays respectively. And on these sessions, healthcare providers (78.5%) provide services for as much as 4 to 8 hours for clients. This is a demonstration of the commitment level of some of the healthcare providers in the study area. This also increases the accessibility of healthcare services to community members.

The study shows that 94.2% of healthcare givers take leave (annual or maternity) although as staff member's leave does not grind activities of a CHPS compound to a halt. This means that the manners in which staffs go on leave are carefully planned such that as and when a staff is on leave, activities at the zone still go on smoothly. They have a planned annual leave time table such that it does not conflict health service provision in their zones. The staffing situation in some zones are also fairly distributed.

Healthcare givers also employ various innovative ways of making services accessible to members of the community. 50.4% of respondents fall into this caliber. They adopt various



means such as the use of mobile phones, motor bikes, durbars, CHV, announcements in mosques/churches, among others to reach out to community members. This is a good sign of self-motivated health staff readiness to go on extra mile to ensure the people have access to quality health delivery in the area.



CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.0 Overview

Chapter 6 gives the summary of the findings discussed in the previous chapter. A systematic summary would definitely pave the way to a good conclusion in that light, conclusions on the various variables of the work are appropriately done. However, it is with such conclusions that recommendations are tailored to correspond to the unearthed findings made.

6.1 Introduction

This study is mainly concerned on digging out the role of functional CHPS in healthcare delivery within the Sangharigu Municipality and information presented from the fourth chapter and further discussed in the fifth chapter of this study led to the following revelations.

6.2 Summary Of Results

1. Overall 121 healthcare providers and 32 community members were included in the study.
The ages of the healthcare providers vary from 20 to 44 years with females constituting 81.0% while that of the community members ranges from 30 years to 54 years with females constituting 71.9%.
2. Of the healthcare providers interviewed, 81.8% (99) works in structured CHPS zone while 18.2% (22) worked in Non-structured CHPS zone.
3. Of those who worked in the structured CHPS zones, 73.7% (73) lived in the communities while 26.3% (26) lived outside the communities.
4. Scope of services rendered ranges from community mobilization, maternal and child welfare, mental health and treatment of minor ailment.



5. The best service delivered was health education and the least was mental health as agreed by 98.3% and 52.1% of the healthcare providers respectively.
6. Overall, 80.2% (97) of health care professionals said rains affected their service delivery while 19.8% (24) said the rainy season did not affect service delivery. With respect to community members`, 90.6% (29) said rains affected service delivery in their communities.
7. Healthcare providers also mentioned unmotorable roads (40%), unsafe sources of drinking water (34%), Unsafe places for outreach activities since (81.8%) perform the services under trees and incidence of snake-bites (40%).
8. With respect to time access, 71.1%, 24.8% and 4.1% of healthcare providers said they were available to community members on daily, weekly and monthly bases respectively, 40.6%, 31.3% and 28.1% of community members said healthcare providers are accessible to them on daily, weekly and monthly bases respectively.

6.2 Conclusions

- Females constituted majority of the respondents' workers interviewed, whether healthcare providers or community health volunteers.
- Although structures are provided in most CHPS zones for healthcare workers, over 25% of them still live outside the communities.
- The overall performance of Non-structured CHPS zone was much better than that of the structured ones with exception of mental health care and emergency delivery.
- Rain fall, unmotorable roads, unsafe sources of drinking water, unsafe places for outreach activities since and incidence of snake-bites were some factors outlined by healthcare providers to affect healthcare delivery in the area.



- There is disparity between healthcare providers' availability to the communities as reported by the healthcare providers to staff access as reported by community members.

6.3 Recommendation

To ameliorate these effects, the communities could help provide outreach structures for primary healthcare activities in their communities to reduce the truncating of the services during the rainy season. The state could revise the CHPS concept to include outreach structures in the CHPS zones to improve on health care to the communities during the rainy season.

The Sangnarigu municipal assembly is encouraged to extend pipe borne water to Gbalahi, Gumani and kulahi to help prevent the seasonal landfill site and floods contaminations of drinking sources.

The Sagnarigu municipal health directorate and the sub-municipal heads should take steps to strengthen the monitoring and evaluation in the CHPS zones to improve on the time access of the communities to a healthcare provider.

The municipal assembly as mater of need could incorporate accommodation in the structured zones to enable health providers stay in the communities they are posted to improve on accessibility and availability to health service in times of need.

In the interim, accommodation could be rented for both the structured members without accommodation as well as the non-structured to stay in the community to improve on time access of the communities to a health professional.

In the same line, the municipal health directorate should put measures in places to increase the provision of mental health and nutritional rehabilitation services in the municipality. To do this the municipal health directorate could liaise with the northern regional health directorate to get



more midwives, nutrition officers and the mental health nurses to improve on the services in the CHPS zones in these fields.

Finally, the Sangharigu Municipal Health Directorate is encouraged to provide more logistics to the CHPS zones during the rainy season since over 90% confirmed a sharp increase in the incidence of malaria and diarrhea cases during the season.



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Appendix A



UNIVERSITY FOR DEVELOPMENT STUDIES

SCHOOL OF MEDICINE AND HEALTH SCIENCES

DEPARTMENT OF COMMUNITY MEDICINE AND FAMILY HEALTH

INTRODUCTION AND CONSENT FORM

This research is an academic exercise on the **Topic: The Role of Functional CHPS in Healthcare Delivery in Sangnarigu Municipality.**

A questionnaire is designed to collect the data to work on the above topic and therefore seek your kind cooperation for its successful completion to enable me work on the Thesis which is a partial requirement for the fulfillment of the Master of Public Health Degree Programme. Your views and opinions would be held with outmost level of confidentiality.

Your participation in this study is by your free will and absolutely voluntary. The information collected in this research study will be coded without names of participants recorded. Also no name of respondent will be used in any publication or report from this study.

By signing on it will indicate your full consent to participate in this process.

Signature of the respondent.....

Thank you



HEALTHCARE PROVIDER

INSTRUCTIONS

This questionnaire consists of sections A TO E. Each section consists of a group of questions to be answered.

State clearly if your CHPS zone is a structured (**compound base**) or non-structured (**'No Compound'**)

SECTION A

SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Age: ()

2. Sex:

1. Male () 2. Female ()

3. Religion:

1.Christian () 2.Muslim () 3.Traditionalist() 4.Other Specify.....

4. Marital Status:

1.Single () 2.Married () 3.Divorce ()

4. Separated () 5.Widow ()

5. Educational Status:

1. Non Educated () 2.Primary () 3. Secondary () 4.Tertiary ()



SECTION B

SCOPE OF SERVICES OF THE CHPS

6. Which type of CHPS zone do you work?

1. Structured CHPS zone (**With Compound**) () 2. Non Structured CHPS zone (**No Compound**) ()

7. If structured zone do you stay there for 24hours with the community members?

- 1.Yes () 2.No ()

8. What is the population of your CHPS Zone?

9. How many communities are classified under this zone?

Which of the following services do you provide in your CHPS zone? Tick YES for those you provide and NO for those you do not provide in the table 3.12 below.

TABLE 3.12

No	Types Of Services	1.Yes	2.No
10	Post Natal Services		
11	Emergency Delivery		
12	Community Durbars		
13	Immunizations		
14	Nutrition Rehabilitation		
15	Disease Surveillance		
16	Home Visits		
17	Health Education		
18	Health Promotion		
19	Treatment of Minor Ailments		
20	Referrals		
21	Mental Health Services		
22	Community Health Management Committee		



	(CHMC) meetings		
23	Ante Natal Services		
24	Family Planning Services		
25	Home delivery		

26. If there is any service you provide which is not in the table above 3.12, specify.....

.....

SECTION C

EFFECTS OF THE RAINY SEASON ON CHPS HEALTHCARE DELIVERY

27. Do you think rainy season affects healthcare delivery in your area?

1. Yes () 2.No ()

28. Give reasons for your Answer in question 27 above

.....

29. Where do you hold your outreach sections?

1. Under a tree 2. Classroom 3. Structure 4. Open Space 5. If any state.....

.....

30. When it is raining does it stop your outreach section?

1.Yes () 2.No ()

31. Do you have hard to reach areas during the rainy season?

1.Yes () 2.No ()

32. If yes to question 31, which communities?

.....

33. What is the cause of the blockage?



1. Flooding 2. Bridge Collapse 3. Road Not Motor able 4. Any Other State.....

.....

34. Is there any alternative ways of delivering healthcare to those communities during the rainy season? (Hard to reach in rainy season)

1. Yes () 2.No ()

35. State if any.....

36. For how long are you prevented from going there?

37. What are your sources of drinking water in this CHPS zone or community? (tick as many that are applicable in your CHPS Zone or community).

1. Dams 2. wells. 3. pipe borne water 4. Borehole 5. Any other state.....

.....

38 Does the drinking source get contaminated during the rainy season?

1. Yes () 2.No ()

39. Tick as many as that are applicable to your CHPS zone during rainy season

1. Flooding

2. Pollution of drinking source

3. Increase in snakebite case

4. Increase in Diarrhea cases

5. Fall of houses leading to injuries

6. Refuse dumps carried by flood into drinking sources

7. Faeces from open defecation carried by running water into drinking source

8. Public toilets carried by running water into drinking sources

9.landfill site wash into Damps and wells use as drinking sources



40. which of these two seasons do you record an increase in clients?

1. Dry season 2. Rainy season

41. Explain your answer.....

42. Has rainy season led to conciliation of outreaches for several months in a community in your CHPS zone?

1. Yes () 2.No ()

43. For how many months were you blocked from going to those communities?

.....

44. Which types of ailments (sickness) are common in the rainy season in your CHPS Zone? States.....

.....

45. How do we minimize the effects of the rainy season on CHPS healthcare delivery?

.....

.....

1.7.1 SECTION D

TIME ACCESS OF THE COMMUNITY TO HEALTHCARE PROVIDER

46. How often do you go to your CHPS zone?

1. Every Day () 2. Weekly () 3. Monthly ()

47. How long does an outreach section last?

- A. 4 hours () B.6 hours () C .8 hours () D.10 hours () E. Other hours Specify...

.....

48. Do you have hard to reach areas in your CHPS zone?



1. Yes () 2. No ()

49. For how many months are you not able to render services to the hard to reach areas in your CHPS zone in a year?

50. How often do you organize outreach sections in each community in your zones?
.....

51. Apart from outreach sections, how often do you go to the communities?

1. Daily 2. Weekly. 3. Monthly 4. Every 3 months

52. How long do you stay there when you go.....

53. Do you go to work on weekends?

1. Yes () 2.No ()

54. Do you work on National Holidays?

1. Yes () 2.No ()

55. How many health staffs are you in the zone?

56. Do you take your annual or maternity leave?

1. Yes () 2.No ()

57. When you are on leave does it lead to the closure of the facility?

1. Yes () 2.No ()

58. Do you use any alternative means to reach your community members?

1. Yes () 2.No ()

59. If yes to question 58, state which means?



APPENDIX B



UNIVERSITY FOR DEVELOPMENT STUDIES

SCHOOL OF MEDICINE AND HEALTH SCIENCES

DEPARTMENT OF COMMUNITY MEDICINE AND FAMILY HEALTH

INTRODUCTION AND CONSENT FORM

This research is an academic exercise on the **Topic: The Role of Functional CHPS in Healthcare Delivery in Sangnarigu Municipality.**

A questionnaire is designed to collect the data to work on the above topic and therefore seek your kind cooperation for its successful completion to enable me work on the Thesis which is a partial requirement for the fulfillment of the Master of Public Health Degree Programme. Your views and opinions would be held with outmost level of confidentiality.

Your participation in this study is by your free will and absolutely voluntary. The information collected in this research study will be coded without names of participants recorded. Also no name of respondent will be used in any publication or report from this study.

By signing on it will indicate your full consent to participate in this process.

Signature of the respondent.....

Thank you



COMMUNITY HEALTH VOLUNTEER QUESTIONNAIRE

INSTRUCTIONS

This questionnaire consists of sections A TO E. Each section is made up of a group of questions to be answered.

State clearly if your CHPS zone is a structured (**compound base**) or non-structured (**No Compound**)

SECTION A

SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. Age:()

2. Sex:

1.Male () 2. Female ()

3. Religion:

1. Christian () 2. Muslim () 3.Traditionalist () 4.Other Specify.....

4. Marital Status:

1.Single () 2.Married () 3.Divorce () 4.Separated () 5.Widow ()

5. Educational Status:

1. Non Educated () 2.Primary () 3.Secondary () 5.Tertiary ()



SECTION B

SCOPE OF SERVICES OF THE CHPS

6. Do you have a CHPS compound in this zone?

1.Yes () 2.No ()

7. If yes to question 6, do the Nurses stay there for 24hours with the community members?

1. Yes () 2.No ()

8. What is the population of your CHPS Zone?

9. How many communities are classified under this zone?

Which of the following services do they always provide to the communities in this CHPS zone? Tick YES for those you provide and NO for those you do not provide in the table

3.13 below.

TABLE 3.13

No	Types Of Services	1.Yes	2.No
10	Post Natal Services		
11	Emergency Delivery		
12	Community Durbars		
13	Immunizations		
14	Nutrition Rehabilitation		
15	Disease Surveillance		
16	Home Visits		
17	Health Education		
18	Health Promotion		
19	Treatment of Minor Ailments		
20	Referrals		
21	Mental Health Services		
22	Community Health Management Committee		



	(CHMC) meetings		
23	Ante Natal Services		
24	Family Planning Services		
25	Home delivery		

26. If there is any service they provide which is not in the table above 3.12, specify.....

.....

SECTION C

EFFECTS OF THE RAINY SEASON ON CHPS HEALTHCARE DELIVERY

27. Do you think rainy season affects healthcare delivery in this CHPS zone?

1.Yes () 2.No ()

28. Give reasons for your Answer in question 27.....

.....

29. Where do you hold your outreach sections?

1. Under a tree 2. Classroom 3. Structure 4. Open space 5. Any other state...

.....

30. When it is raining does it stop your outreach section?

1. Yes () 2.No ()

31. If yes to question 30 above explain.....

.....

32. Do you have hard to reach areas during the rainy season?

1.Yes () 2.No ()

33. If yes to question 32, which communities?

.....



34. Are health workers always blocked from reaching certain communities in this zone during the rainy season?

1. Yes () 2.No ()

35. If yes to question 34 what is the cause of the blockage?

1. Flooding 2. Bridge Collapse 3. Road Not Motor able 4. Any Other State...

.....

36. For how long are health staffs prevented from reaching such communities?

1. Two Weeks () 2. One Month () 3. Three Months () 4. Six Months () 5. Any state...

.....

37. Any alternative means of reaching the Hard to reach communities in the rainy season?

1. Yes () 2.No()

38. which of these two seasons do you record an increase in sickness in the communities in your CHPS zone?

1. Dry season, () 2. Rainy season ()

39. Which types of ailments (sickness) are common in the rainy season in your CHPS zone?

State.....

40. which of these seasons do you record more deaths due to sickness in your CHPS zone?

1. Dry season 2. Rainy season

41. How many died last year.....

42. How do we minimize the effect of the rainy season on CHPS healthcare delivery?

.....

43. What are your sources of drinking water in this CHPS zone or community? (tick as many that are applicable in your CHPS Zone or community).



1. Dams 2. wells. 3. Pipe borne water 4. Borehole 5. Any other state.....
.....

44. Does the drinking source get contaminated during the rainy season?

1. Yes () 2.No ()

45. Tick as many as that are applicable to your CHPS zone during rainy season

1.Flooding

2.Pollution of drinking source

3.Increase in snakebite cases

4.Increase in Diarrhea cases

5.Fall of houses leading to injuries

6. Refuse dumps carried by flood into drinking sources

7. Faeces from open defecation carried by running water into drinking source

8. Faecal matter carried from Public toilets by running water into drinking sources

9. Landfill site wash into Damps and wells used as drinking sources

1.7.2 SECTION D

TIME ACCESS OF THE COMMUNITY TO HEALTHCARE PROVIDER

46. How often does the health staff come to your community or CHPS zone?

1. Every Day () 2. Weekly () 3. Monthly ()

47. How long does an outreach section last?

A.4 hours () B. 6 hours () C .8 hours () D.10 hours () E. Other Hours Specify....
.....



48. For how many months are the Nurses not able to render services to the hard to reach areas in your CHPS zone in a year?

49. When was the last date a health staff came to your community or zone?

50. Apart from outreach sections, how often do health staffs come here for health activities?

1. Daily B. Weekly. 2. Monthly 3. Every 3 months 4. If any state.....

51. How long do they stay here when they come?

52. Do they come to work on weekends?

1. Yes () 2. No ()

53. Do they work on National Holidays?

1. Yes () 2. No ()

54. How many health staffs do you have in this zone?

55. Do they take their annual or maternity leave?

1. Yes () 2. No ()

56. When someone is on leave does it lead to the closure of the facility?

1. Yes () 2. No ()

57. Which time do they start and close from work?

58. Do you always meet the CHO anytime people go there for health services?

1. Yes () 2. No ()

59. How often does she/he come here to conduct healthcare activities?

