ASSESSMENT OF THE COMMUNITY HEALTH OFFICERS TRAINING PROGRAMME OF THE COMMUNITY-BASED HEALTH PLANNING AND SERVICES (CHPS) INITIATIVE IN THREE SELECTED DISTRICTS IN THE GREATER ACCRA REGION

BY

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DECLARATION

I certify that this thesis is entirely my own original work, which I have as a graduate student produced after a series of research, except for the references to other people's work, which have been duly acknowledged. I also wish to declare that, this work has neither in whole nor in part been presented for any degree elsewhere. I am therefore, solely responsible for any errors of commissions or omissions that may occur.

SIGNED

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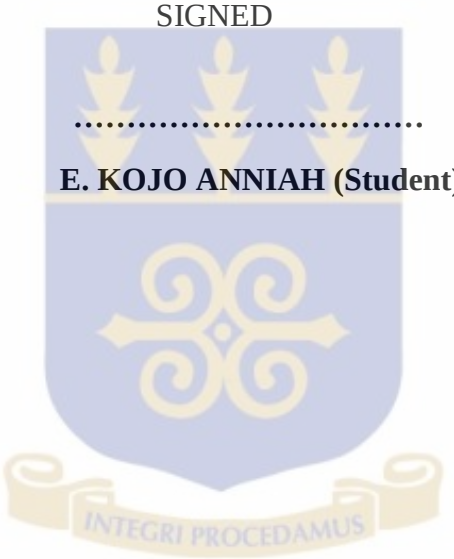

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DEDICATION

This study is dedicated to God Almighty for his Love and Mercies and for seeing me through the programme. I also dedicate this work to my mother, Madam Elizabeth Ama Amenyaglo, my siblings as well as friends and loved ones.

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ABSTRACT

The success of the Community-Based Health Planning and Services (CHPS) initiative is largely dependent on the critical role of the Community Health Officers (CHOs) as the frontline officers. The study sought to assess the effectiveness of the CHOs training programme in relation to its impact on CHOs performance in three selected districts in the Greater Accra Region of Ghana.

The study used cross-sectional research design employing both quantitative and qualitative approaches. Purposive sampling method was employed to gather relevant data from 108 CHOs in three districts, as well as eight key informants in charge of the CHOs training programme. Semi-structured questionnaire and interview guide were the tools employed to elicit information pertaining to training inputs for CHOs and key informants respectively. Also, checklists were used to gather data from non-participant observation for on-going training sessions and desk review of training documents. Quantitative data was analysed using SPSS Version 16.0 and with Microsoft Excel software aiding in calculating the mean scores for the Likert scale. Qualitative data was analysed by coding and analysing for main themes and ideas that were emerging. The analysis triangulates the data, with reflections on the responses from all the different data sources and across the three districts.

The study found that the content (modules) of the training programme was relevant to orient trainees to become change agents for health development with mean scores ranging from 4.4 to 4.9 in preventive, promotive, and curative health. Furthermore, highly effective interactive, learner-centred training methods were employed to deliver the training content with mean scores ranging from 4.5 to 4.8. Also, the application of adult learning practices during training sessions was found to be very relevant to enhance congenial learning environment for the realisation of the training outcomes. A majority (92.6%) of the CHOs indicated that the CHOs training programme equipped them with the necessary skills to perform their duties successfully. Also, majority (97.2%) of the respondents thought allocation of training resources were adequate to meeting training requirements, although training budgetary allocation was a concern sometimes.

In conclusion, the study found that the CHPS initiative has a comprehensive CHOs training programme in place which is well-designed to re-orient CHNs to CHOs position. Thus,

incorporating transfer of learning design into training porgrammes has a high propensity to ensuring effective mode of delivery to achieve training output and post-training performance for community health workers. The study therefore recommends among others that the duration for the training should be revised and have it extended. Also, more training manuals should be reproduced and made available to participants during training sessions. The various DHMTs should source for additional funding from NGOs and other international donor organisations to augment training subvention from the government to scale up the CHOs training programme and as well as to address the training challenges identified.

LIST OF ABBREVIATIONS

APHA	American Public Health Association
BARIDEP	Brong Ahafo Rural Integrated Development Project
CDMR	Case Detection, Mobilisation and Referral
CHFP	Community Health and Family Planning Project, Navrongo
CHNs	Community Health Nurses
CHNTS	Community Health Nurses Training School
CHOs	Community Health Officers
CHPS	Community-Based Health Planning Services
CHPS-TA	Community Based Health Planning & Service Technical Assistance
CHV	Community Health Volunteers
CHW	Community Health Workers
CRFs	Community Rehabilitation Facilitators
DDHS	District Director of Health Services
DFID	Department for International Development
DHD	District Health Directorate
DHD	District Health Directorate
DHMT	District Health Management Team
DHMT	District Health Management Team
DOTS	Directly Observed Therapy Short-Course
DWD	Dangme West District
GED	Ga East District
GHS	Ghana Health Service
GHWA	Global Health Workforce Alliance
GHWO	Ghana Health Workforce Organisation
GPRS	Ghana Poverty Reduction Strategy

GPRS	Ghana Poverty Reduction Strategy
GWD	Ga West District
HACS	HIV/AIDS Communicators
HBC	Home Based Care
HIV/AIDS	Human Immunodeficiency Virus Infection and Acquired Immune Deficiency Syndrome
HR	Human Resource
HRH	Human Resources for Health
HRHD	Human Resources for Health Division
HRSA	Health Resources and Services Administration
IOM	Institute of Medicine
IST	In-service training
JICA	Japan International Cooperation Agency
JLI	Joint Learning Initiative
MCH/FP	Maternal and Child Health and Family Planning
MDGs	Millennium Development Goals
MHD	Municipal Health Directorate
MOE	Ministry of Education, Ethiopia
MOH	Ministry of Health, Ghana
NHRC	Navrongo Health Research Centre
PHC	Primary Health Care
PMNCH	Partnership for Maternal, Newborn & Child Health
PPME	Policy Planning, Monitoring and Evaluation
QHP	Quality Health Partners
SDHMT	Sub-District Health Management Team
SIST	Structured In-Service Training

SIST	Structured In-Service Training
SR/MNCAH	Sexual and Reproductive Health and Maternal, Newborn
TPC	Training Programme Characteristics
UCLA	University of California at Los Angeles
UGMS	University of Ghana Medical School
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VHWs	Village Health Workers
WB	World Bank
WHO	World Health Organisation
YPOW	Year Programme of Work

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

It is widely acknowledged that health workers, as an integral part of health systems, are a critical element in improving health outcomes. The World Health Organisation Report (2006): *Working together for health* posits that without sufficient numbers of adequately trained and supported health workers, there is a significant risk of not attaining the health-related Millennium Development Goals (MDGs) (WHO, 2006). Country evaluations of disease-oriented programmes have found that the lack of appropriately trained and motivated health workers is one of the major bottlenecks in implementing evidence-based health interventions to improve maternal and child health and to address HIV/AIDS, malaria and tuberculosis (Dreesch et al, 2005). The absence of well-educated and properly managed health workers was also identified as one of the health systems constraints to achieving the MDGs, along with poor infrastructure, drugs and supply systems and information systems (Travis et al., 2004).

According to the World Health Organization, there is a global shortfall of 2.3 million physicians, nurses and midwives, and a shortage of more than 4 million health workers overall. Most of this shortfall is in developing countries (WHO, 2010 as cited in Iheed Institute, 2012). Sub-Saharan Africa bears the greatest impact of the global health worker shortage. The High Level Taskforce on Innovative International Financing for Health Systems estimated in 2009 that developing countries need an additional 2.6 to 3.5 million Community Health Workers (CHWs) to achieve the Millennium Development Goals by 2015 (World Bank, UNICEF, UNFPA & PMNCH, 2009). That is, only 5,100 CHWs are trained each year in Africa. The Earth Institute Technical Task Force report advocates in

2011 that at least a million more are needed to meet basic maternal and child health needs (Singh, 2011).

According to the World Health Organisation (WHO), Primary Health Care (PHC) is the most potent way to bring about improvement in health in accordance with the approach of the Alma Ata Conference in 1978. The primary health care approach was a paradigm change from curative urban based to preventive rural based care and education through effective community mobilization. Primary health care enjoins people to achieve their health needs through their full participation and at a cost they can afford. It is important to point out that local communities are of prime focus for primary health care activities (WHO, 2003). In this regards, the role of Community Health Workers (CHWs) in improving access to basic healthcare services, and mobilizing community actions on health is thus, broadly recognised. The primary health care approach was explicit on the role of CHWs in addressing community health needs (WHO, 1978 as cited in Abbat, 2005), and the delegation tasked to assess community health workers issues considered CHWs as a response to the global shortage in human resources for health and a key strategy to improve access to quality health services (WHO, 2008).

Health Resources and Services Administration (2007) defines CHWs as lay members of communities who work either for pay or as volunteers in association with the local health care system. Working in both urban and rural environments, they usually share ethnicity, language, socio-economic status and life experiences with the community members they serve. Indeed, community health workers have gained an increasing role in health care delivery, particularly in support of strategies that recognize the influence of an individual's community and environment on health outcomes (Fisher et al, 2005). According to Norris

et al, (2005, as cited in Ferguson, Lemay, Hargraves, Gorodetsky, & Calista, 2011), the impact of CHWs on the delivery of necessary health services, including the provision of culturally relevant health education and case management, system is worthwhile.

Thus, there is evidence pointing to the success of CHWs in addressing health problems at the community level. Similarly, community health workers have been shown to contribute to reductions in child morbidity and mortality, encourage immunization uptake, promote breastfeeding, and improve outcomes for tuberculosis patients and children suffering from acute respiratory infection or malaria (Lewin et al, 2010). WHO (2006) acknowledges the successes community health workers are achieving to address the widespread shortages in human resources for health which have beset many countries across Africa and Southeast Asia who are planning and implementing CHW programmes on a national scale. As a result of the critical roles of the CHWs in global health, there are calls for a better understanding of what motivates individuals to become and remain CHWs (Maes & Kalofonos, 2013; Haines et al, 2007).

According to Tulloch & Martineau (2012), community health workers like any other cadre of health workers, are recruited, managed and motivated. Their success and sustainability is therefore influenced by a combination of factors which include government support, community participation, an adequate incentive or reward system, supervision and training. Indeed, existing health system structures have an impact on the effectiveness of CHW services through defining their roles and incentives (Prasad and Muraleedharan, 2008). Literature on CHWs principally focuses on a few key aspects, including their tasks and activities, selection and recruitment process, training, remuneration, and support system. Indeed, community health workers training generally seeks to develop new knowledge and skills related to specific tasks and to increase CHWs' capacity to

communicate with and serve local people (Li, Goethals, & Dorfman, 2008). Improving access to basic training has also been found to be an important element of improving CHW retention (Landon, Loudon, Selle, & Doucette, 2004).

Certainly, there has been need to educate and train more health workers especially in Africa where the health needs are greatest. Unfortunately, the capacity to increase the supply of health workers is constrained by the limited number of educational institutions that produce health workers and the scarcity of resources available at those institutions to scale up education and training. For example, estimates in 2010 showed that sub-Saharan African countries alone need to add approximately one million workers to their health systems to provide universal coverage with an essential package of life-saving services, yet 26 of the 48 countries in Africa had only one medical school or none at all (Mullan and Frehywot 2010). Developing countries have pressing health needs and a shortage of physicians and nurses to meet them. According to the World Health Organization, there is a global shortfall of 2.3 million physicians, nurses and midwives, and a shortage of more than 4 million health workers overall. Most of this shortfall is in developing countries (WHO, 2010).

Singh (2011) reports that CHWs help fill the global health workers' gap by providing access to basic health care in a cost-efficient manner. Thus, around the world, CHWs play a profound role in filling the global health worker gap by providing basic, low-cost health care, social services and health information to individuals and groups that lack access to professional health care. According to Singh (2011), for millions of people in the developing world, CHWs are the first and often only point of contact with the formal health system. In regions with limited resources, CHWs cost comparatively little to train and offer low-cost interventions that save millions of lives. Training a CHW for one year costs 2.5

percent as much as training a doctor, takes less than one-fifth the time, and allows the delivery of simple solutions that cost $3.50 per person to supply annually. A typical CHW provides care for 100 households.

Training of CHWs is one of the key aspects that generally seeks to develop new knowledge and skills related to specific tasks and to increase CHWs' capacity to communicate with and serve local people (Javanparast, Baum, Labonte., Sanders, Rajabi, & Heidari, 2012). Recognizing the importance of training, numerous organizations, agencies, and governments have redoubled their efforts to expand the scope of training programmes and the resources allocated to them. United States Agency for International Development (USAID) for instance, aims to increase the number of CHWs serving in priority countries by at least 100,000 by 2013 (Iheed Institute, 2012). In-service training has been and will remain a significant investment in developing and maintaining essential competencies required for optimal public health in all global service settings. Regrettably, in spite of major investments, we have limited evidence about the effectiveness of the techniques commonly applied across countries, regardless of level of resource (Aguinis1 & Kraiger, 2009). Evidence in Ghana suggests training also remains significant to equipping Community Health Officers (CHOs) with the requisite knowledge and skills for their community work and the government as well as the developmental agencies continue to invest in such training. A competent workforce with the necessary knowledge, skills and abilities in translating policy, and theory into effective action is therefore critical to the future growth and development of community health workers (WHO, 2009 as cited in Dempsey, Barry, & Battel-Kirk, 2010).

The National Health Policy has been designed within the context of Ghana's vision of achieving middle income status by 2015. It places health at the centre of socio-economic

development and presents a clear shift in the role of health in national and international development framework. This is based on the recognition that health is not only a human right issue, but also a key driver of development, ultimately of wealth creation (MOH, 2007). Among other objectives, MOH, (2007) states that the policy seeks to promote a vibrant local health industry that supports effective, efficient and sustainable service delivery, create jobs and contributes directly to wealth and attainment of national development objectives. It is also intended to guide health-enhancing actions of individuals, households and communities and corporate entities as a tool for government. Thus, the objectives of the policy identify with the Community-based Health Planning and Services initiative, which was strategy to improve access and equity in the provision of basic essential package of health services to all residents of Ghana irrespective of geographical locations, and especially in rural, deprived and hard-to-reach communities. For instance, the health sector has implemented a second 5-Year Programme of Work (5YPOW) (2002-2006) which was linked more closely to poverty reduction through the Ghana Poverty Reduction Strategy (GPRS). The GPRS and 5YPOW objective of bridging health inequality has led to investments in the CHPS programme and construction and equipping of health facilities in deprived regions (Binka, et al 2009).

Ghana, just like other African countries, suffers from a serious shortage of health workers. Between 1998 and 2002, well over 3,000 nurses left to work in other countries. That left about 4,300 professional nurses in the public sector, a shortfall of nearly 5,700. The vacancy rate for Ministry of Health (MOH) nurses increased from 25.5% in 1998 to 57% in 2002 (DFID, 2004 cited in Capacity Project/USAID, 2006). According to WHO/World Bank (2004), Ghana also suffers inequitable distribution of health facilities with more acute shortages at primary care facilities as compared to tertiary facilities, and in poorer to

richer districts. In addition, the human resources crisis in the country is further worsened by the inequality in the human resources itself because nurses working in posts where they are highly in demand are more likely to leave than staff in more attractive posts. There was the realization that 70% of all Ghanaians lived over eight kilometers from the nearest health care provider which was worsen by inadequate road and transport facilities (Nyonator, Awoonor-Williams, Phillips, Jones, & Miller, 2005). In view of these challenges, health decision making by communities were influenced by traditional beliefs and poverty, which tend to impact negatively on the health status of the community (Binka et al, 2008).

To respond to some of the above issues, the Community-based Health Planning and Services (CHPS) Initiative has been one of the strategies adopted by the Ministry of Health (MOH) in Ghana as a process of strategic planning and implementation of PHC activities within the community with the full involvement and participation of the community members. As a national strategy, CHPS was adopted for promoting accessible, quality and equitable health services to all Ghanaians, particularly those in rural areas. It is a process that emphasizes prevention and education through effective communication and community mobilization (GHS, 2005).

The Community Health Officer (CHO) is a front line health service provider who deliver technical or defined package of health services in the community. He/she collaborates with community members, other service providers and partners in planning, management, implementation and promotion of quality health services. The CHO is often said to be the backbone of the CHPS strategy which aims to increase access to health care to deprived communities. Thus, he/she provides close-to-client system of outreach and service

delivery which help relieve the geographic obstacles to health and reduces the congestion that is associated with sub-district and district health facilities (GHS, 2004). The CHO is a certified Community Health Nurse (CHN) who has received additional training in order to provide the full complement of CHPS services. That is, CHOs are CHNs who have received two year pre-training programme from Community Health Nurses' Training School (CHNTS). They are then posted to the DHMTs where they receive additional training when they are oriented to become CHOs and later deployed to the CHPS zone. The following are the summary of duties and responsibilities of CHOs:

- Prepare and implement action plan on community health programmes and activities in collaboration with community members and other partners
- Carry out regular home visits
- Provide Ante-Natal service both in the homes and communities
- Monitor growth and development of children in the communities
- Provide immunization to children, pregnant women and other individuals in the homes and communities
- Create awareness, motivate individuals and couples to consider family planning, help them make appropriate methods
- Provide appropriate Family Planning services to individuals and couples both in the homes and communities
- Carry out surveillance on health events in the community and report promptly
- Conduct emergency deliveries in the home and community
- Provide postnatal care in the homes and community
- Recognize complications in pregnancy, delivery and post-delivery and make prompt referrals
- Manage commonly occurring conditions in the community, using standard treatment guidelines and protocols
- Provide health promotion and health education services on specific health issues in the home and community
- Facilitate compilation of community registers
- Keep and update community health registers and submit reports promptly

- Supervise, monitor and support Traditional Birth Attendants (TBAs), and other community health volunteers
- Collaborates with traditional Healers and other service providers, chemical sellers, private midwives
- Assist in mobilization of community resource health programmes
- Prepare and submit report on community health activities regularly, etc (GHS, 2005).

The Operational Policy document of CHPS (GHS, 2005) listed about twenty duties and responsibilities of CHOs (see Appendix D). However, the recommended boundaries of basic packages of services to be provided by CHOs could be categorized into three broad areas namely health promotion and preventive; curative and rehabilitative health (managing of minor ailments and referrals); and case detection, mobilization and referrals (CDMR). Skills expected of CHOs in performance of their roles in the communities include: communication and interpersonal relations; decision making and problem solving skills; planning and organization; community mobilization; technical (Family Planning, Reproductive, Curative, among others); recording and reporting skills; and monitoring and supervision. Some qualities required of a CHO include: initiative and drive; tact and cultural sensitive; self-discipline; tolerance; understanding; hardworking and perseverance; and trustworthy (GHS, 2005).

The Greater Accra region is one of the ten administrative regions of Ghana. It lies in the South East of the country along the gulf of Guinea and has coastal savannah, a little forest area inland towards the Eastern region in the Ga district, and miles of beautiful coastline especially in the rural parts of the region. The shores in the capital city of Accra are regrettably mostly polluted by both liquid and solid waste. Until the creation of the new districts in 2012, the Greater Accra region has ten districts. Although the region houses the

national capital, the peripheries are remote and characterised with widespread poverty. There is also a large population of urban poor mostly leaving in slums. The region is the fastest urbanised in the country. As a result of this, there are many peri-urbanised communities emerging at the peripheries. Most of them lack health facilities, the Accra Metropolis, can boast of many public and private facilities. There are 514 demarcated CHPS zones in the region and by the beginning of 2012, sixty six (66) of them were functional CHPS zones (MOH, 2013). Unfortunately, most of these functional zones are located at hard to reach communities, where provision of health service delivery is most needed. Since its inception in 2003, CHPS has been scaled up to a total of 1,863 functional CHPS zones by midyear 2012 throughout Ghana (MOH, 2012).

1.2 Statement of the Problem

The goal of CHPS is to effectively mobilize community residents and resources to increase coverage, improve responsiveness and deliver more equitable and cost-effective health care to Ghana's rural residents. This goal is achieved mainly through the CHOs who worked actively with the community members as partners in delivery of primary health care and family planning services. CHPS is a process that emphasizes prevention and education through effective communication and community mobilization (MOH, 2005). The job of the CHOs therefore, requires a round-the-clock commitment to respond to needs of the community and a continuous effort to build and maintain community awareness about health issues (Capacity Project/USAID, 2006).

The CHOs training programme has been developed to equip community health nurses with the requisite skill mix to deliver on their mandate as community health officers. Also, the initial CHO training programme is designed purposively to provide the community health

officers with the skill mix to carry out the tasks expected of them. In addition, the CHO training programme is expected to provide a transformative training intervention to equip the trainees' with the requisite competence for their role in the community. The success of the CHPS initiative is largely dependent on the critical role of the CHO as the frontline officer, who receives their training from the CHOs training programme.

Among the factors that influence performance namely clear job expectations; clear and immediate performance feedback; adequate physical environment and tools; motivation and incentives to perform as expected; organizational and administrative support; and skills and knowledge required to do the job (Intrahealth International, 2007 & O'Driscoll, 2003), training continues to be significant to providing skills and knowledge required to do the job. Effective training makes optimal use of resources, maximizes learning, improves performance and, ultimately, improves programme outcomes. However, in spite of the relevance of the CHOs training programme to the realization of the CHPS initiative, there has not been any study to assess its relevance as well as effectiveness. In view of this therefore, the study sought to assess the effectiveness of the CHOs training programme in relation to the training output in three selected districts in the Greater Accra Region.

1.3 Purpose of the Study

The study is situated in the context of training design and its implication for adult learning. More precisely, the study is undertaken employing a mixed method to assess the effectiveness of the Community Health Officers training programme in relations to training output. Again, since there has not been any work accessing the effectiveness of the Community Health Officers training programme in relation to the training output, this study is conducted to explore the relevance of training designs to the theory and practice of adult learning.

1.4 Objective

The general objective of the study was to assess the effectiveness of the CHOs training programmes in relation to the training outputs in three selected districts in the Greater Accra Region.

The specific objectives therefore were:

1. To determine the relevance of the content of the CHOs training programme in the three selected districts,
2. To determine the effectiveness of the methods of the CHOs training programme in the three selected districts,
3. To determine the adequacy of training resources in ensuring the realisation of training objectives,
4. To determine the level of linkage between training and post-training performance of CHOs, and
5. To identify the challenges facing trainees or co-ordinators of the CHOs training programmes.

1.5 Related Research Questions

The related research questions were:

1. To what extent are the contents of the CHOs training programme achieving the output?
2. How effective are the use of the training methods in achieving training output?
3. How adequate are the training resources in ensuring the realisation of training objectives
4. To what extent is the CHO training impacting on performance for the trainees?
5. What are the challenges facing trainees or co-ordinators of the CHOs training programmes?

1.6 Significance of the Study

The significance of CHPS programme to improving the health of rural Ghana cannot be underestimated. It was identified by Ghana Poverty Reduction Strategy (GPRS) as a key element in pro-poor health services. Ultimately, the community-based level service provision will enable the Ghana Health Service reduce health inequalities and promote equity of health outcomes by removing geographic barriers to health. The concept of CHPS is captured right in the centre of the National Health Policy and Millennium Development Goals (MDGs).

In the context of the above explanation, the significant of the study therefore are:

I. To contribute to the body of growing knowledge of readers about the causal connection between adult learning and training design with particular reference to transfer process, and how they are impacting on training outcomes on the CHOs training programme

II. To help policy makers and management of the CHPS initiative to develop and upgrade appropriate training design for effective training intervention for the CHOs.

III. To provide a source of information about CHOs training challenges so that measures can be taken to ameliorate them.

1.7 Operational Definition of Terms Used in the Study

For the reading and understanding of the study as well as avoidance of any ambiguity in the minds of the reader, the essential terms used in this study are defined as listed below. The definitions apply to the concepts throughout the study except where they are defined in specific contexts.

Community-Based Health Planning and Services (CHPS): The Operational Policy Document defines CHPS Initiative as 'the mobilization of community leadership, decision making and resources in a defined catchment area (zone), the placement of reoriented frontline health staff [known as Community Health Officers (CHOs)], with logistics support and community volunteer systems to provide services according to the principle of primary health care' (GHS, 2005).

Community Health Planning Officers (CHOs): The Community Health Officer (CHO) is a front line health service provider who delivers technical or defined package of health services in the community. He/she collaborates with community members, other service

providers and partners in planning, management, implementation and promotion of quality health services. The CHO is often said to be the backbone of the CHPS strategy which aims to increase access to health care to deprived communities. Thus, he/she provides close-to-client system of outreach and service delivery which help relieve the geographic obstacles to health and reduces the congestion that is associated with sub-district and district health facilities (GHS, 2005). The CHO is usually a certified Community Health Nurse (CHN) who has received additional training in order to provide the full complement of CHPS services.

Training effectiveness refers to the benefits that the company and the trainees receive from training. Benefits for trainees may include learning new skills or behaviour. Benefits for the company may include increased sales and more satisfied customers (Noe, 2008). Thus, effective training makes optimal use of resources, maximizes learning, improves performance and, ultimately, improves program outcomes (Hart et al, 2012).

1.8 Organisation of the Study

This study comprises six chapters. This first chapter constitute background of the study, statement of the problem, purpose and significant of the study. Chapter two presents the related literature reviewed under theoretical concepts of training and empirical concepts of community health workers. In Chapter three, methodology adopted in carrying out the research was described. It also highlights the sampling procedures adopted in selecting the sample from the population used in the research. Chapter four contains the presentation of the results and analysis of data that were gathered during the study. Chapter five discusses the results of the study, and finally, chapter six presents a summary as well as the conclusion drawn from the study as well as recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is made up of two parts. The first part deals with the theoretical framework of transfer process for effective training programmes. The second part also reviews empirical issues on community health workers' programmes implementation.

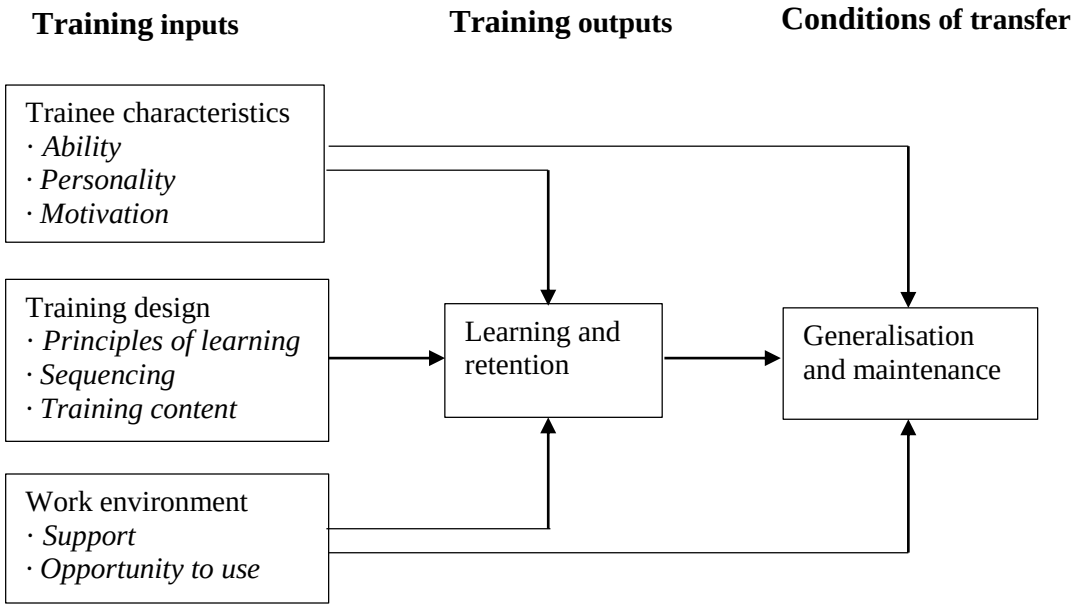
2.2 Grounded Theoretical Framework

This section presents the conceptual framework of the study and other related theoretical literature.

2.2.1 Transfer Process for Effective Training

The study is grounded on model of transfer in workplaces by Baldwin and Ford (1988), which they developed after analysing 63 empirical studies of transfer research from 1907 to 1987 to create the model shown in Figure 2.1. This model has been widely cited and is useful because it shows the interconnectedness of learning during the training programme (training inputs) and learning and retention after the programme (learning outputs). Training inputs and outputs also affect whether learning is able to be generalised to new situations and maintained over time (conditions of transfer). Baldwin and Ford (1988) however cautioned that there were major limitations to their model because of the short-term nature of the studies and the narrowness of the transfer tasks. This model of transfer in the workplaces (Baldwin & Ford, 1988) is presented in Figure 2.1 below.

Figure 2.1: **Model of the transfer process**



Adopted from Baldwin and Ford (1988, p 65).

Figure 2.1 illustrates the key linkages which are critical in the transfer process. According to the module, there are three elements namely trainee characteristics, principles of learning and work environment that affect learning and retention which together also influence generalization and maintenance. Each of these three elements are also determined by other factors. Trainee characteristics is influenced by trainee's ability, personality and motivation; training design is influenced by principles of learning, sequencing and training content; while support and opportunity to use constitute the work environment. Baldwin and Ford (1988) consider these components are training inputs. They also refer to learning and retention as training outputs while generalization and maintenance as conditions of transfer. The components of the model of transfer and related concepts are discussed below.

2.2.2 Concept of Training

Training has been defined by a number of scholars and trainers like Change agents. Training refers to a "planned effort by a company to facilitate employees' learning of job-related competencies. These competencies include knowledge, skills, and behaviours that are critical for successful job performance. The goal of training is for employees to master the knowledge, skill, and behaviours emphasized in training programs and to apply them to their day-to-day activities" (Noe, 2008, p. 32). Buckley and Caple (2000) defined training as: "a planned and systematic effort to modify or develop knowledge/skill/attitude through learning experience, to achieve effective performance in an activity or range of activities. Its purpose, in the work situation, is to enable an individual to acquire abilities in order that he or she can perform adequately a given task or job". These competences include knowledge, skills or behaviours that are critical for successful job performance. Also, Goldstein & Ford (2002, as cited in Aguinis and Kraiger, 2009) referred training to a systematic approach to learning and development to improve individual, team, and organizational effectiveness. Alternatively, they refer development as activities leading to the acquisition of new knowledge or skills for purposes of personal growth. Similarly, AL-Ajlouni, Athamneh, & Jaradat (2010) view training as a technique which properly focuses and directs towards the achievement of particular goals and objectives of an organization. From the above definitions it can be asserted that training is a technique concerned with the development of skills and knowledge in particular actor's discipline. Training enhances and improves person's skills. It imparts knowledge to change person's attitudes and values towards a particular direction.

Recently, it has been acknowledged that to gain competitive advantage, training has to involve more than just basic skills development (Quinn, Anderson, Finkelstein, 1996). That is, to use training to gain competitive advantage, training should be viewed broadly

as a way to create intellectual capital. Intellectual capital includes basic skills (skills needed to perform one's job), advanced skills (such as how to use technology to share information with other employees), an understanding of customer or manufacturing system, and self-motivated creativity (Noe, 2008).

Training is provided to give new staff the basic skills they need for the jobs they will be expected to do, to improve performance and provide new skills (Riseborough and Walter, 1988). Objectives of training must be determined to pave way for the assertion of proper techniques of training. Training is imparted to people in organization with certain defined objectives and goals. Training play a key role in ensuring that employees can accept and work more effectively with each other, particularly with minorities and women (Loden and Rosener, 1991).

Aguinis anf Kraiger (2009) assert that evidence in the literature strongly point out that training works, at least, in the sense that it has an impact on individuals and teams, the organizations and the societies in which they function. However, Aguinis and Kraiger (2009) caution that training efforts will not yield the anticipated effects if knowledge, attitudes, and skills acquired in training are not fully and appropriately transferred to job-related activities. In the view of Aziz, Ahmad, Abiddin, Noah, and Samah, (2011), a large amount of training investment is reported every year since organizations today prioritize human resource development through formal training, which can only benefit organizations if it is effective.

2.2.3 Transfer of Training

Recently research on training focuses more on the efficacy of transfer of training in instructional designs. The transfer of training continued to be of importance as did an

interest in the return on investment of training (Burke &. Hutchin, 2007). Aguinis and Kraiger (2009) also indicate how recent research has reported on how to ensure that the changes that take place during training are transferred back to the job environment. Conventionally transfer of training has been defined as the application of knowledge, skills and attitudes learned from training on the job and subsequent maintenance of learning over a period of time (Baldwin and Ford, 1988). That is, transfer of training is the extent to which new knowledge and skills learned during training are applied on the job. According to Child (2004) as cited in Cameron et al (2011), transfer of training occurs when a person uses learning from previous contexts in a similar situation.

A number of studies have investigated in training strategies for improving transfer, with little or mixed success. Brown (2005) examines goal setting at the end of training by comparing three conditions: setting distal goals, setting proximal plus distal goals, and telling participants to do their best. Contrary to expectations, participants instructed to do their best out-performed trainees told to set distal goals, and did as well as participants told to set proximal plus distal goals. In contrast, Richman-Hirsch (2001) reports positive effects for a post training goal-setting intervention, particularly in supportive work environments. Gaudine & Saks (2004) find no differences between a relapse prevention and transfer enhancement intervention for nurses attending a two-day training program. The researchers suggested that transfer climate and support were likely more potent determinants of transfer than were post training interventions.

According to Aguinis and Kraiger (2009), however, training efforts will not yield the anticipated effects if knowledge, attitudes, and skills acquired in training are not fully and appropriately transferred to job-related activities. Hence, the essence of training ensuring

transfer of training, which should focus on variables that affect the impact interventions intended to enhance transfer.

2.2.4 Trainee Characteristics

A trainee's or learner's characteristics refers to an individual's ability and motivation that affect performance (Sackett, Gruys, & Ellingson, 1998). Thus, the trainee's characteristics influence training outcomes. Goldstein and Ford (2002) who refer trainee's characteristics as trainee's readiness view it as to whether employees have the personal characteristics (ability, attitudes, beliefs, and motivation) necessary to learn programme content and apply it on the job, as well as the work environment that will facilitate learning and not interfere with performance. According to Burke & Hutchins (2007), dominant characteristics found to exert a direct effect (or indirect through learning), on training performance include the role of cognitive ability, personality factors, self-efficacy, motivation, perceptions of training utility, and organizational commitment. Personal characteristics together with other factors such as inputs (the instructions that tell employees what, how and when to perform), output (the job performance standards, and consequences (the type of incentives employees receive for performing well) all influence motivation engage in the learning enterprise.

Ability or cognitive ability to learn in the first place is necessary before transfer can be achieved (Burke & Hutchins, 2007; Blume et al, 2010). This is referred to as trainee's cognitive ability, which is needed to achieve training outcome. Nuthall (2001) as cited in Cameron et al (2011) asserts that successful learners have had more experiences than unsuccessful learners that have led them to be able to engage more purposefully in learning activities. According to Ford & Weissbein (1997), the greater the level of existing

knowledge and skills the easier it is to make links to new learning and hence the steeper the learning trajectory. Thus, trainee's existing knowledge may be needed as a prerequisite to the skill being taught (Benseman, 2010) as cited in Cameron et al (2011). Perceived usefulness of learning to meeting career goals, among others also facilitates characteristics for the training (Burke and Hutchins, 2007).

Personality or proactive personality is defined as a stable disposition to take personal initiative in a broad range of activities and situations (Siebert, Kraimer, & Crant, 2001) as cited in Ismail, Ghani & Krishnan, (2011). Hough and Schneider (1996) cited in Major, Turner, & Fletcher (2006) suggest that proactive personality is a compound personality trait. Citing previous studies, Siebert et al. (2001) explain that proactive personality is a narrowly focused personality trait, and consistently associated with conscientiousness and extraversion. Trainee's performance is influenced by innate dispositional variables that can affect the direction, level, and persistence components of trainee motivation (Herold et al 2002 cited in Alvarez et al, 2004).

Literature establishes relationships between proactive personality and various individual variables such as job performance and career outcomes (Siebert et al., 2001). However, studies using proactive personality as a predictor to motivation to learn are limited (Ismail et al, 2011). Major et al. (2006) examined the links between proactive personality and the five factors on motivation to learn and found that there were significant relationships between proactive personality, extraversion, openness, and conscientiousness and motivation to learn. They however found out that, proactive personality had twice the effect on motivation to learn when holding the other personality traits constant. The effect of proactive personality on motivation to learn also did not appear to be significant. The results showed that proactive personality was not a good predictor of motivation to learn.

This result is also contrary to Major et al. (2006) who found that significant relationship exists between proactive personality and motivation to learn.

Noe (2008) defines motivation to learn as trainees' desire to learn the content of training programme. Pre-training motivation refers to individual attitudes, expectancies, and self-beliefs likely to influence willingness to attend training and learning during training. Pre-training self-efficacy is therefore a function of managers' job involvement, organizational commitment, and perceptions of the work environment (i.e., perceived support and recognition), which in turn was related to pre-training motivation personality (Rowold, 2007). Additionally, pre-training motivation has also been shown to be related to trainee personality (Rowold, 2007), trainee self-efficacy and training reputation (Switzer et al. 2005), as well as reactions to prior training courses (Sitzmann et al, 2007). In a field study of learners in a traditional classroom or blended learning course, Klein et al. (2006) found that learners had a higher motivation to learn when they had a high learning goal orientation (rather than a lower learning goal orientation) and when they perceived environmental conditions (e.g., time, Internet access) as learning enablers (rather than as barriers). Motivation to learn, in turn, was related to learner satisfaction, metacognition, and course grade. Bell and Kozlowski (2008) show that trait and manipulated learning orientation had independent effects on participants' self-efficacy and structural knowledge. Aziz et al (2011) indicate that many recent studies have shown that training motivation is the most important precursor for training effectiveness. They believe that training programme characteristics (TPCs) is one of the factors that can stimulate training motivation with a large effect.

Adult learners are internally motivated and that motivation to learn contributes to the success of training. One way to increase learner motivation is to involve training

participants and their co-workers in setting goals. This creates a shared vision and investment in the programme outcomes. A study in the United States found that the development of agreed-upon learning goals leads to more effective training (Kontoghiorghes, 2002 as cited in Hutchins, 2009). Having agreed-upon goals ensures that the learning is applicable and builds on the participants' experience. Involving learners in goal setting also allows them to fully appreciate the benefits of using the new knowledge and skills, gives them the satisfaction of having more control over the tasks they perform at work, and fosters a sense of belonging — all of which add to their motivation to learn and perform

Learners are more likely to perceive training as useful when they recognize the need to improve job performance or acquire a new skill and feel that the training will enhance their performance. The expectation — from supervisors, learners and their co-workers — that the training is important and that the skills learned in training will be applied at work also has a positive effect (Kontoghiorghes, 2002 as cited in Hutchins, 2009). To be motivated to learn in training programmes, therefore, Noe and Schmitt (1986 as cited in Ismail, Ghani, & Krishnan, 2011) advise that employees must be aware of their skill strengths and weaknesses and the link between training programme and improvement of the their weaknesses. Perceived value or utility of training can be influenced by trainees' evaluation of (1) the credibility of the new skills for improving performance, (2) a recognized need to improve their job performance, (3) a belief that applying new learning will improve performance, and (4) the practicality of the new skills for ease of transfer (Sheppard, Sleight, & Ford, 2004 as cited in Burke &. Hutchins, 2007).

2.2.5 Training Design

Noe (2008) refers to training design as the characteristics of the learning environment. Previous researchers indicate that this characteristic of the learning environment has been shown to affect the pre-training motivation and motivation to learn. Some training design characteristics were shown to increase motivation to learn in training (Aziz et al, 2011). According to Haskell (2001), practitioners and researchers are realizing that the failure to find transfer is often because of conditions that prevail during the original learning. Training designs or instructional strategies are defined as a set of tools, methods, and content that, when combined, create an industrial approach. Most effective strategies are created around four basic principles. These principle are (1) presentation of relevant information or concepts to be learned; (2) demonstration of the knowledge, skills and attitudes to be learned; (3) creating opportunities for trainees to practice skills and (4) providing feedback o trainees during training and after practise the skills (Salas & Cannon-Bowers, 2001). Baldwin and Ford (1988) advocate the inclusion of some classical principles of behavioural learning into the design and delivery of training programmes. The key principles include (1) identical elements (aligning content and approaches between training and transfer settings); (2) general principles (helping learners to understand the general principles that underpin what is being learnt); (3) stimulus variety (using many examples of what is being learnt); and (4) practice (including feedback on progress and over-learning).

Gagne, Wagner, Golas, and Keller (2005), also define instructional systems design as *"a research-based methodological approach to the planning of instruction, with attention to the consistency and compatibility of the technical knowledge at each state of design. This systematic planning of instruction to achieve learning is characterized by a process of*

stating goals, selecting or developing instructional interventions, and using feedback from learners to improve the instruction" (p.12).

In designing effective training programme for employees, instructional design process is usually recommended. According to Noe (2008), instructional design process refers to a systematic approach for designing and developing programmes. He identified six steps in this process. These are (1) conducting needs assessment; (2) ensuring employees' readiness for training; (3) creating a learning environment; (4) ensuring transfer of learning; (5) selecting training methods; and (6) evaluating training programmes. Step 1 is to conduct a needs assessment, which is necessary to identify if training is needed. Step 2 involves ensuring that employees have the motivation and basic skills necessary to master training content. The next one, Step 3 involves ensuring that the learning environment is has the factors necessary for learning to occur. Step 4 deals with ensuring that trainees apply training content to their job, whilst Step 5, involves selecting the training methods. This is done after training needs has been identified, objectives of the training written, and the type of training environment identified. The last one, Step 5 involves evaluation, which is determining whether training achieved the desired outcome.

With regards to designing the training, many principles are taken into consideration. In the first place, short- and long-term learning goals need to be determined, and the principles of cognitive theory which is important for learning should guide in the goal setting (Knowles, 2005). Brown (2005) in affirming the importance to setting both short- and long-term goals, adds that goals for the training should be based on the gaps in knowledge and skills. Wilmoth, Prigmore, and Bray (2002) as cited in Hart et al (2012) point out that learners, the work setting and job tasks should be assessed as well as information about learners from performance assessments, interviews, observations and other means should

be gathered. Information to be gathered may include learners' desired outcomes, educational background, work experience, job responsibilities, and language and reading level (Intrahealth International, 2007). Romi and Teichman (2001) cited in Hart et al (2012) indicate that there should be work setting assessment to cover the supervisory system, available job aids and equipment, and work processes in all groups affected by the implementation of new skills. They advocate for the availability of required resources for the training such as funds and certification requirements.

Another training design characteristic is sequential transfer. Keiler (2007) cited in Cameron et al (2011) refers to sequential transfer as when new learning depends on previous learning, the learner must be able to transfer learning from one level to another.

Set standards for performance is another principle that needs to be set. According to Intrahealth International (2007) job responsibilities and tasks, as well as standards for performing those tasks should be clear. Standards should include both what to do and the results expected for satisfactory job performance. Developing learning objective, another principle that is considered is the training design. According to Taylor (2000, as cited in Cameron et al, 2011), good learning objectives are derived from needs assessment and cover the different areas of learning which the course has to offer. Develop learning objectives based on the essential skills and knowledge for each job task. Learning objectives define the performance that learners will demonstrate as part of, or resulting from, the training (Intrahealth International, 2007).

In determining learning content, Burke & Hutchins (2007) assert that the training content should be based on the identified skills and knowledge gaps of the learners. This should include only the information or skills necessary to achieve desired job performance. This

is because too much information impairs long-term retention (Rohrer & Taylor, 2006 as cited in Hart et al, 2012). Burke & Hutchins (2007) caution that training effectiveness decreases when learners are overwhelmed with excessive content that is not immediately relevant or applicable. According Hannum (2009), training content should build on current knowledge and experience rather than repetition of what learners already know. Hannum recommends that it is critical to choose the appropriate and experienced trainers who have a grounding in adult education techniques and a combination of skills and experiences that can match the skills and knowledge gaps being addressed.

Theories of identical elements, stimulus generalization, and cognitive load suggest that training must be designed in a manner conducive to trainee needs and expectations. That is, trainees are more likely to apply their training knowledge when the learning content and materials are similar to those used in the work setting (Yamnill & McLean, 2005). Thus, multiple examples and contexts are used to generalize the application of knowledge to the work setting, and the content is presented in a manner that does not overload or confuse learners with extraneous information (van Merrienboer, 1997) as cited in Burke & Hutchins (2007).

2.2.6 Creating a Learning Environment

The workplace learning literature provides a helpful lens for looking at transfer. There is deeper recognition now that what is learnt in training does not automatically 'transfer' into the workplace. According to Subedi (2006), certain characteristics of workplace organisation and culture have powerful impacts on how learning is supported and recognised and whether it is able to be transferred and developed. Thus, learning environment can be referred to a combination of the physical or virtual space, and the

social, cognitive and emotional circumstances in which learning takes place. Hiemstra (1991) who has devoted most of his time to looking at learning environment, defines learning environment as all the physical surrounding, psychological or emotional conditions, and social or cultural influences affecting the growth and development of an adult engaged in an educational enterprise. According to Noe (2008), creating learning environment involves setting learning objectives, gathering meaningful material, putting acquired skills into practice, getting feedback on performance, community learning, modelling and programme administration. Thus, learning environment should encourage an understanding that the results of learning and professional development are tied to strategic choices made by the organisation and not just a frill or an "add-on".

It is important to recognize that learning and training interventions do not exist in a vacuum and as such the need for these interventions to support organizational goals and strategies. Montesino (2002) found a group of trainees who self-reported highest usage of training perceived a significantly higher alignment of the training program with the strategic direction of the organization. Lim and Johnson (2002) find that Korean trainees perceived higher transfer when their learning outcomes matched trainees' departmental goals. Learning environments are most likely to be promoted by organisations that employed high-leverage training. High-leverage training is linked to strategic business goals and objectives, uses an instructional design process to ensure that training is effective, and compares or benchmarks the organisation's training programmes against of other organisations (Carnevale, 2005). High-leverage training practice also helps to create working conditions that encourage continuous learning.

According to Rosow and Zager (1988), continuous learning is a learning system in which employees are required to understand the entire working system including the relationships

among their jobs, their work units, and the organisation. Employees are also expected to acquire new skills and knowledge, apply them on the job, and share this information with other workers. Peters (2004) identifies two characteristics of employees' perceptions of the working environment. These are situational constraints and social support. He refers to situational constraints as include lack of proper tools and equipment materials and supplies, budgetary support, and time; whilst social support refers to managers' and peers' willingness to provide feedback and reinforcement. To ensure that working environment enhances trainees' motivation to learn,

Peters (2004) suggests five ways to achieve that. These are (1) provide materials, time, job-related information, other work aids necessary for employees to use new skills or behaviour before participating in training; (2) speak positively about the organisation's training programme to employees; (3) let employees know they are doing a good job when they are using training content in their work; (4) encourage work-group members to involve each other in trying to use new skills on the job by soliciting feedback and sharing training experiences and situations in which training content was helpful; and (5) provide employees with time and opportunities to practice and apply new skills or behaviours to their work. According to Kolb (1984) as cited in Noe (2008), the adult learner's interests are embedded in their personal histories, in their vision of who they are in the world and what they can do and want to do. Thus, adults prefer learning methods that combine work and study, within theory and practice which provide a more familiar and therefore more productive arena for learning.

2.2.7 Training Outputs

The training outputs as indicated in Baldwin and Ford's (1988) model are successful learning and retention. These are achieved by the combined influences of training inputs and work environment influences. It often assumed that these learning and retention indicated Baldwin and Ford in the model mean that people will be able to use and remember what they learnt in training. This assumption is often made because Baldwin and Ford provide no information on what successful learning and retention looks like. However, some learning theories in the literature postulate come conditions that make learning effective. Aguinis & Kraiger (2009) content that there are evidence pointing to the fact that training works, in the sense that it has an impact on individuals and teams and on the organizations and the societies in which they function. This means that learning has actually taken place.

The concept learning is said to be very difficult to define. As such, there is no single general definition of learning (Hager & Hodkinson, 2009). For any training programme to be effective it must result in learning both new skills and abilities (Riseborough & Walter, 1988). Learning has been defined by McShane and Glinow (2007) as 'a relative permanent change in behaviour (behaviour tendency) that occurs as a result of a person's interaction with the environment. Learning occurs when interaction with the environment leads to behaviour change. This means that we learn through our senses, such as through study, observation, and experience. According to Gagne et al (2005), learning is the relative permanent change in human capabilities that is not a result of growth processes. These capabilities are related to specific learning outcomes namely verbal information, intellectual skills, motor skills, attitudes and cognitive strategies. Several theories relate to how we learn. Each theory relates to different aspects of the learning process. Many theories also relate to trainees' motivation to learn. This section briefly looks at seven of

such theories namely reinforcement, social learning, goal setting, need, expectancy, adult learning and information process theories.

Reinforcement Theory emphasizes that people are motivated to perform or avoid certain behaviours because of past outcomes that have resulted from such behaviours (Skinner, 1953) as cited Noe (2008). Bandura (1997 cited in Burke and Hutchins (2007) calls it self-reinforcement which according to him, occurs whenever an employee has control over a reinforce but does not 'take' it until completing a self-set goal. Self-reinforcement takes many forms, such as taking a walk, watching a movie, or simply congratulating yourself for completing a task. From training perspective, reinforcement theory suggests that for learners to acquire knowledge, change behaviour, or modify skill, the trainer needs to identify what outcomes the learner finds most positive and negative. The trainer then needs to link these outcomes to learners acquire knowledge and skills or changing behaviours. There are several types of benefits that learners can obtain from participating in training programmes. The benefits may include learning an easy or more interesting way to perform their job (job-related), meeting other employees who can serve as resources when problems occur (personal), or increasing opportunities to consider new positions in the company (career-related) (Wright and Noe, 1996 as cited in Noe, 2008).

Social learning theory states that much learning occurs by observing others and then modeling the behaviours that lead to favourable outcomes and avoiding behaviours that leads to punishing competences (Bandura, 1976 as cited Noe, 2008). According to the theory, learning new skills or behaviours comes from (1) directly experiencing the consequences of using the behaviours or skills or (2) the process of observing others and seeing the consequences of the behaviours. According to social learning theory, learning is also influenced by a person's self-efficacy, which deals with the person's judgment

about whether he can successfully learn about knowledge and skills. That is, self-efficacy is determinant to a trainee's readiness to learn. There are four suggested processes involved in the social learning theory namely attention, retention, motor reproduction, and motivational.

Adult learning theory was developed out of the need for specific theory of how adults learn. Most educational theories as well as formal educational institutions were developed exclusively to educate children and youth. Pedagogy, the art and science of teaching children, dominated educational theory. Pedagogy gives the instructor major responsibility for making decisions about learning content, method, and evaluation. This is so because students are generally seen as (1) being passive recipient of directions and content, and (2) bringing few experiences that may serve as resources to the learning environment (Knowles, 1990). As a result of the limitations of formal education theories to adult learning, educational psychologists developed *andragogy*, the theory of adult learning. The adult learning theory, which has several assumptions, is accredited to Malcolm Knowles. They include (1) adults have the need to know why they are learning, (2) adults have a need to be self-directed, (3) they bring more work-related experiences into the learning situations, (4) they enter into a learning experience with a problem-centered approach to learning, and (5) adults are motivated to learn by both extrinsic and intrinsic motivators (Knowles, 1990).

Building on Malcom Knowles' (1990) principle of andragogy, Maehl (2004) confirms that the characteristics of adult learners invite the following recommendations for those charged with establishing formal educational programs for adults: (1) incorporate problem-centred learning and directly address the life experiences of adult learners, (2) provide opportunity for adults to play a role in the design, direction, and implementation of learning experience, (3) offer flexibility in time, place, mode, and pacing to accommodate changing circumstances,

(4) recognise that the relationship between learner and teacher must be filled with mutual respect, emphasizing cooperation rather than control, and (5) provide a positive learning environment including regular and constructive feedback.

Adult learning theory is very relevant when it comes to designing and developing training programmes, especially when the audience for such programmes is mostly adults. That is, applying adult learning theory to training programmes, it considers (i) adopting mutual planning and collaboration in instruction (self- concept), (ii) use learner experience as basis for examples and applications (experience), (iii) develop instruction based on the learner's interest and competences (readiness), (iv) immediate application for content (time perspective), and designing it to be problem-centered instead of subject-centered (Knowles, 1990).

2.2.8 Generalisation and Maintenance

Generalisation is the extent to which knowledge can be applied in new settings; maintenance is the extent to which changes persist over time Blume et al (2009). Baldwin and Ford (1988) suggest that effective transfer also requires that the learning is maintained over a period. Others emphasise the generalisation aspect of transfer, where skills learnt in training are actually used in a new context such as on the job (Salas and Cannon-Bowers, 2001) as cited in Hutchins (2009). Taking these arguments one step further, maintenance suggests practice and mindfulness, that is, being aware of opportunities to keep using new skills. Generalisation also suggests a level of mindfulness that is, knowing when it is appropriate to use new knowledge or skills and being aware of instances when you do so. Blume et al (2009) describe a 'generalization gradient' with transfer tasks that are the same or very close to the training tasks being more likely to be transferred (that is, 'near

transfer'). When the content or context is different, or the new task is given much later than the training task(s), 'far transfer' is needed and is more difficult to achieve. The example they give is 'applying principles of electricity from training to troubleshooting complex mechanical problems under extreme time pressures' (Blume et al, 2009, p 41). The clear implication for research is that the nature of the transfer task and contexts needs to be carefully described. Doyle (2004 as cited in Cameron et al, 2011) provides the following examples of positive transfer: if someone learning a database package has background knowledge of databases or has used a different database package, they are likely to benefit in terms of time taken to learn the package; and the previous experience of learning algebra facilitates learning statistics.

2.2.9. Training Methods

Lee (1990 as cited in Noe, 2008) in his book, *"Who Gets Trained in What"* and Carnevale, Gainer and Meltzer (1990 as cited in Noe, 2008), in their book: "*Workplace Basic Training Manual",* put traditional training methods into three categories. These are presentation methods, hands-on methods, and group building methods. According to Noe (2008) presentation methods refer to methods in which trainees are passive recipients of information. This information may include facts or information, processes, and problem-solving methods. Presentation methods include lectures and audio-visual techniques.

On the other hand, Noe (2008) refers to hands-on methods as training methods that require the trainee to be actively involved in learning. These methods include on-the-job training, simulations, case studies, business games, role plays, and behaviour modeling. These methods are ideal for developing specific skills, understanding how skills and behaviours can be transferred to the job, experiencing all aspects of completing a task, or dealing with interpersonal issues that arise on the job. Cantoni, (1995 as cited in Noe, 2008) refers to

group building methods as training methods designed to improve team or group effectiveness. Group building methods include adventure learning (i.e. focuses on the development of teamwork and leadership skills using structured outdoor activities.

In choosing a training method, Noe (2008) suggests that a trainer or manager needs to compare and evaluate the training methods available to him. There is the need to consider a numbers of characteristics such as the types of learning outcomes associated with each method, the learning environment, transfer of training, cost, and effectiveness. According to Noe (2008), the first step in choosing a method is to identify the type of learning outcome that the training is expected to influence. These learning outcomes include verbal information, intellectual skills, cognitive strategies, attitudes, and motor skills. Once the learning method has been identified, the next step is to consider the extent to which the method facilitates learning and transfer of training, the cost related to development and the use of the method, and its effectiveness. It is important to note that for learning to occur, trainees must understand the objective of the training programme, the training content should be meaningful, and trainees should have the opportunity to practice and receive feedback. It is also important to note that, another powerful way to learn is through observing and interacting with others. Thus, in general, the closer the training content and environment prepare trainees for the use of learning outcomes on the job, the greater the likelihood that transfer will occur (Noe, 2008). Bluestone (2013), asserts that the use of multiple techniques allow for interaction that enable learners to process and apply information. He identifies case-based learning, clinical simulations, practice and feedback as effective educational techniques, while didactic techniques that involve passive instruction, such as reading or lecture, as having little or no impact on learning outcomes

In summary, it apparent from the model that, good training inputs (trainee characteristics, training design and work environment) will impact on training output (learning and retention) which will eventually influence transfer conditions (generalization and maintenance). That is, a motivated trainee who is cognitively ready for a well-designed training programme within a supportive organization is more likely to understand and remember what he is learning and generalise the learning to new situations can be to be sustained over time. Indeed, the application of appropriate training design and delivery methods can help maximize the benefits of training. In terms of transfer process, the literature suggests that when there is stringent effort to ensure the appropriateness of the training inputs in a coordinated manner, leaning will certainly be encouraged which may impact on performance at the work environment.

2.3. Empirical Studies of Community Health Work

This section presents some empirical works on community health workers. It looks at the scope of community health workers, training and related issues that impact on performance, as well as some challenges that confronts the implementation of community health workers programmes.

2.3.1. Scope of Community Health Work

The WHO Alma Ata Declaration on Primary Health Care (PHC) in 1978 established Community Health Workers (CHWs) as a generic title and defined their role internationally. This declaration envisaged that CHWs would contribute to "Health for All" through direct provision of health care, by creating awareness of health services and their value to the community, and by acting as an agent for community development (WHO, 1978 as cited in Abbat, 2005). As a result, in many developing countries PHC approach was seen as a mass production activity for training CHWs in 1980s (Matomora,

1989 as cited in Prasad and Muraleedharan, 2008). Sein (2006) identifies the processes of the mass production of CHWs as the third workforce of "Human resource for Health". Joint Learning Initiative (JLI) (2004) defined "Human Resources for Health" (HRH) as the stock of all individuals engaged in improvement of health of a population. They include professionals (doctors, nurses, pharmacists, lab technicians, among others), and non-professionals (auxiliary midwives, health visitors, dais, among others). According WHO (2006a) the CHWs may be regulated or unregulated, voluntary care givers (voluntary Dots provider) and family members. Interestingly, the CHWs are still relevant in providing care in the remote and inaccessible parts of the world as they were introduced to provide PHC in 1980s.

The umbrella term 'Community Health Worker' (CHW) embraces a variety of community health aides who are selected, trained and work in the communities from which they come. A widely accepted definition was proposed by a WHO Study Group (WHO 1989, as cited in Prasad and Muraleedharan, 2008):

> *Community health workers should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organization, and have shorter training than professional workers*.

According to Lehmann, Friedman & Sanders (2004), CHWs include the most generic type of community based workers, including cadres such as village health workers (VHWs), community resource persons (CORPs) or workers known by local names such as the South African *Onompilo*. In addition to generalist CHWs, there are also a range of more specialised cadres such as community rehabilitation facilitators (CRFs), community-based directly observed therapy short-course (DOTS) supporters, HIV/AIDS communicators

(HACS), home based care (HBC) workers, first aid workers, lay health workers etc. All these types of CHWs carry out one or more functions related to health care delivery, are trained in some way in the context of the intervention, although they do not usually have formal professional or paraprofessional certificated or degreed tertiary education. However, according to Lehmann et al, such training is recognized by the health services and national certification authority. Thus, formally trained nurse aides, medical assistants, physician assistants, paramedical workers in emergency and fire services and others who are auxiliaries, mid-level workers and self-defined health professionals or health paraprofessionals, for example, are usually not included.

In general terms, the role of CHWs is to act as agents of health promotion and health development. They also provide local outreach of health services that might otherwise be unavailable and often provide a link between communities and formal health services (Kahssay, Taylor & Berman (1998).

In the context of resource constraints that many health systems face today, enhancing the role of the CHW has been highlighted as an alternative strategy by various experts (Macinko, 2007). WHO also recommends appropriate training and adequate and continuous support for these workers in order for them to perform optimally. According to Nigel *et al* (2007), every country should strive to increase the number of health workers according to its priorities, but pragmatically many low-income countries initially focused on community and mid-level workers to address the high burden of disease in the primary care setting. They describe how Thailand improved its health system through this strategy during the 1970s–1990s and countries such as Brazil, Ethiopia, Ghana, India and Malawi have adopted a similar approach.

In spite all these praises, others take a more negative stance and question the effectiveness of CHW's. For example, Onwukwe and Pearson (2000 as cited in Prasad and Muraleedharan, 2007), contend that whilst there may be evidence that CHWs have had some success in increasing access to, and expanding coverage of key services used by the poor and in mobilising community action for health in small scale experiments has generally not been possible to replicate these achievements on a large scale. Furthermore, there is little evidence that these achievements have made any detectable impact on overall health status. There have been studies by Prasad and Muraleedharan (2007), USAID (2010) and WHO on the Community Health Workers (CHWs) from across a range of both developed and developing countries, with respect to the overview of the concepts and practice, and policy challenges that remain in designing effective CHW schemes.

2.3.2. Community Health Workers Training Programme

There are many approaches to CHW training, which may range from short term courses to long term certificate programs. Community health workers in Brazil receive an eight week residential course that includes curative, preventive and promotive components, four weeks of fieldwork followed by on-going training sessions (WHO and GHWA, 2010). In Thailand however, CHWs are trained for a period of seven days on the concepts of PHC, disease prevention and basic curative tasks followed by on-the-job training for 15 days (WHO and GHWA, 2010 5). As the *World Health Report 2006* emphasizes, there is increasing consensus that education and training programmes for health workers should focus on "know-how" instead of "know-all" (WHO, 2006). In other words, WHO (2006) asserts that too often, training curricula are laden with content unrelated to job responsibilities and do not provide adequate opportunities for practice, thus diluting job-related learning.

According to Institute for Clinical and Economic Review (2013) experts nowadays consider a generalized approach to CHW training more valuable than traditional CHW training programmes that focus on disease-specific education. This is because the generalized or ideal training programme will offer skill development in areas such as leadership, communication, public health, patient advocacy, and outreach education, which are core competencies CHWs may develop to manage disease-specific areas such as diabetes and HIV. In the same vein, Rowe et al (2009) believe that formal training, whether initial pre-service education or continuing in-service training, has a positive effect on CHW performance, and the better trained a CHW is, the more empowered he or she is to deliver health care in his or her community. Again, on informal training for CHW training, Lehmann and Sanders (2007) indicate that lessons learned on the job, peer-to-peer knowledge transfer and informal links to mentors and medical professionals undoubtedly, contributes significant to performance, retention and overall effectiveness. Lehmann & Sanders also consent with the fact that it is quite difficult to measure or quantify informal training due to its nature.

Bhutta, Lassi, Pariyo and Huicho (2010) provide the processes of a CHW. Thus, once selected, CHWs undergo light weeks of training, four weeks of supervised fieldwork, and receive refresher trainings at monthly and quarterly meetings. Lehmann & Sanders (2007) assert that while the CHW is practicing, he or she adds to his or her competencies through in-service training on new content through periodic in-service refreshers. A number of studies have found that continued training is as important as initial training because it prevents the loss of acquired skills and knowledge (Lehmann & Sanders, 2007). Bluestone (2013) asserts that in-service training represents a significant financial investment for

supporting continued competence of the health care workforce. As such, the entire training design must ensure that the purpose is achieved.

2.3.3 Contents of Community Health Training Programmes

Lehmann, Friedman, Sanders (2004), contend that there is not a large amount of detailed information available on the length and depth of training given to CHWs, although the literature does provide some sense of the variety of approaches. According to Rifkin (1985), most of the literature, however, concentrates on the medical aspects of CHW's training and yet there is little soundly based experience on what should constitute relevant training for a CHW programme. Training content varies significantly by the educational qualifications of CHWs and the required competencies for their roles and responsibilities, ranging from use of nationally-produced training modules to locally tailored curricula, residential courses or mobile training teams. Most CHW training programmes prepare health workers in a particular competency, such as diagnosing malaria, basic maternal and child-care, or explaining birth control. Thus, the training tend to focus on HIV/AIDS and tuberculosis, malaria, reproductive health, and maternal and child health, which are more clinically inclined, while other topics such as sanitation, hygiene, and nutrition have received less attention. In teaching those competencies, training organizations emphasize some degree of knowledge transfer and skills development (Iheed Institute, 2012).

Training content varies significantly by the educational qualifications of CHWs and the required competencies for their roles and responsibilities, ranging from use of nationally produced training modules to locally tailored curricula, residential courses or mobile training teams. Various forms of distance education have also been trialled to provide CHW training, although limited access to technology and low information, technology and

communication (ITC) literacy have been barriers to distance training in many developing countries (Department of Health and Human Services USA, 2006).

According to Ofosu-Amaah (1983), studies have shown that many CHW schemes do not provide primary curative care. Hence care should be taken while deciding the range and nature of services that CHWs should provide in a given population. Ofosu-Amaah indicates how essential it is to strike a balance between preventive and curative services to be provided by them. In the Danfa Comprehensive Rural Health and Family Planning Project, which was a service, research and training project designed to help find solutions to health problems, demonstrated feasible methods of delivery effective health and Family Planning services in rural Ghana started in 1970s. This was an initiative of University of Ghana Medical School (UGMS) to train doctors, sanitarians, midwives, community health nurses and other health personnel, both separately and in teams for their respective roles in rural health work. The Village Health Workers (VHWs) under this project were trained with a training manual adopted from WHO Primary Workers' guide. The principal areas covered by the training programme were on curative, preventive, and administration of PHC programme (University of Ghana & University of California, Los Angeles, 1979).

The village health worker training program in Tuguegarao city, Philippine in 2009, had the purpose to improve physical environmental factors such as development of drinking water, latrine construction, waste disposal and also provide better understanding for determinants of health including social environmental factors. In this programme, basic hygiene and environment guidebook of Hesperian foundation, village health worker training textbook, healthy environment guidebook by WHO and chronic disease management handbook were used for the training (Kim, Koh, Jung, Kim, Park, 2009). In

a training of CHWs to accelerate progress towards reaching the Millennium Development Goals in sexual and reproductive health and maternal, newborn, child, and adolescent health (SR/MNCAH), the United Nations Health Agencies conducted a synthesis of existing training resource packages for CHWs in different components of SR/MNCAH to identify gaps and opportunities and inform efforts to harmonize approaches to developing the capacity of CHWs. The findings identify 31 relevant packages which cover different components of the SR/MNCAH continuum in varying integrated packages and focused packages. According to findings, there is no training package addressing the range of evidence-based interventions that can be delivered by CHWs as per World Health Organization guidance. (Tran, Portela, de Bernis, & Beek, 2014)

In terms of curriculum for CHW training programmes, Iheed Institute (2012) reports of "bottom-up," curriculum as appropriate for specific locales. Thus, bottom-up approaches take into consideration local needs, culture and context, parameters at the district or national-level, and roles of CHWs. Such as approach allows for the development of unique training programmes based on extensive review of local conditions, culture and CHW roles which the communities are to identify with. In standardizing training curricula, Iheed Institute (2012) further states that sometimes governments the leading efforts. For instance in Kenya, a multiplicity of organizations and entities involved in CHW training developed different training manuals, and the Ministry has been working with various international agencies to create one document that will standardize CHW training in terms of content, technical approaches and guidelines. This is in contrast to the curriculum and teaching materials for the Health Extension Programme which was reported to have been developed on the basis of limited experience from the pilot projects carried out in one region and

inputs from similar programs carried out in other countries (MOE, 2003 as cited in Kitaw et al, 2007).

However, in all, it is important to put in an effort to implement a training programme and learn from experience. Katz & Fulop (1978, as cited in Kitaw et al, 2007) assert that a new programme may face challenges because "well-established programmes are usually assumed to be 'good' until proved otherwise, whereas innovative programs are assumed to be 'poor until it is proved otherwise.

2.3.4 Training Duration

According to Institute for Clinical and Economic Review (2013), depending on the course material and organization, CHW training programmes will vary in length from 1-day workshops to 3-month courses. Javanparast, Baum, Labonte, Sanders, Rajabi, & Heidari (2012) also indicate that there many approaches to CHW training, which range from short term courses to long term certificate programmes. Citing example in Brazil, according to Javanparast et al, CHWs receive an 8 week residential course that includes curative, preventive and promotive components, 4 weeks of fieldwork followed by on-going training sessions. In contrast, WHO and GHWA indicate that in Thailand CHWs are trained for 7 days on the concepts of PHC, disease prevention and basic curative tasks followed by on-the-job training for 15 days (WHO and GHWA, 2010).

In their review of existing training resource packages for CHWs in different components of SR/MNCAH, Tran et al, 2014) also indicate that duration for CHW training programmes can span from two to three hours for Cycle Beads in a Reproductive Health programme to a year in Ethiopia's extension worker programme, or even two years in Papua New Guinea's CHW programme. According to Tran et al, in general, the majority of training courses last between three to five days, for either focused or integrated

packages. Some curricula are delivered in several phases and include month-long practice intervals between classroom sessions. In the case of the Boston Public Health Commission and Community Health Education Centre, it offers a Comprehensive Outreach Education Certificate Programme for 14 sessions for a minimum of 54 hours of public health education training (Institute for Clinical and Economic Review, 2013).

2.3.5 Training methods

According to Jhpiego (2012), trainers on CHW programmes can employ two main types of educational techniques namely didactic techniques Interactive techniques. The didactic techniques which usually constitute lectures or readings often result in a passive educational experience; while Interactive techniques are based on interaction and dialogue between learners and facilitators and may feature simulations, role play, or case-based learning. The teaching mode could include a range of technological options such as visuals, audio and multimedia. In Bangladesh, an interactive and problem solving way were used to keep the knowledge of the community health volunteers (CHVs) updated, and to give them an opportunity to discuss fellow CHVs the problems that they face in the village. Rowe et al (2009) consider informal training such as on-the-job and peer networks as playing an important role in a health worker's knowledge base, although not much studies have been conducted on that.

Skills-based instruction is often preferred as compared to instruction based on knowledge transfer for CHWs programme in that, the former takes a pragmatic, non-theoretical approach. Such programs are shorter and more appropriate, who often have low levels of education. A skills-based program on reproductive health would focus on how to teach others to use birth control and how to follow up with patients. Iheed Institute (2012). Most curricula indicate that they use adult learning principles in their training methodology. This

is operationalized by using participatory, interactive and iterative methods. Many training courses concentrate on demonstration and practice with job aids, first in the classroom, then in households. Some materials cater to CHWs with no or very low literacy by using illustrated materials and focusing on practice with job aids and verification of memory (Basic Support for Institutionalizing Child Survival, 2009 as cited in Tran et al, 2014).

2.3.6 Management and Supervision of Community Health Workers

In reviewing the Alma-Ata Declaration on primary health care over the past thirty years, Christopher, May, Lewin, & Ross (2011) identify how many large-scale CHW programmes in the 1980s and 1990s were exhibiting poor quality of care, which was often attributed to management challenges such as insufficient training, supervision, and financial support. Chen et al., 2004 (as cited in Tulloch &Martineau, 2011) indicate that the management of human resources, which ensures that workforce is adequately skilled and supported, is a vital part of building sustainable health systems. Major reviews of the National Rural Health Mission (NRHM) and the Integrated Child Development Scheme (ICDS) III have highlighted a lack of supervision, poor worker motivation and related issues as critical challenges (National Institute of Public Cooperation and Child Development, 2006, as cited in USAID, 2010).

According to Tulloch & Martineau (2012), the CHWs' success and sustainability are influenced by a combination of factors which include government support, community participation, an adequate incentive or reward system, supervision and training. Existing health system structures have an impact on the effectiveness of CHW services not only through the economic resource base used to finance them and political commitment to CHWs, but also through defining their roles and incentives (Prasad and Muraleedharan, 2008). Langston et al, (2014) report of how the integrated community case management

model implemented by Kabeho Mwana in Rwanda resulted in greater improvements in care-seeking than those seen in the rest of the country due to intensive monitoring, collaborative supervision, community mobilization, and CHW peer support groups contributed to this success. However, poor supervision and lack of opportunities for career advancement in Bhutan has been cited as a challenge in the management of CHWs who also did not receive financial incentives (UNICEF, 2012 as cited in Tulloch & Martineau, 2012).

It is important to note that training is one of the factors in the complex ecosystem in which CHWs operate. Accordingly, the other six factors in the ecosystem ought to be harness simultaneously to enhance effectiveness and retention. These factors include remuneration and recognition; equipment and supplies; supervision; opportunities for advancement and promotion; accreditation; and integration within the national health system (Singh, 2011).

2.3.7 Challenges of Community Health Training Programmes

Training programmes are key and integral part of all CHWs programmes to ensure their success. Reviewing of literature on CHWs reveals that some of them have challenges with training, which eventually impact on their effectiveness. Abbatt (2005) asserts that aspects of induction and continuing training programmes for CHWs have received considerable attention, as CHWs are often selected without any prior experience or professional training in community health. Swider (2002 as cited in Prasad and Muraleedharan, 2008) suggests that to achieve success, training must be competently designed and implemented. According to Swider, training is more likely to be successful when: (1) there is a clear job description for the CHWs that defines a limited number of tasks that the CHWs will be expected to perform; (2) the training is competency-based and closely linked to the job

description; (3) the training course allocates a high proportion of the available time to practice of skills; and (4) initial training is supplemented by opportunities for continuing education.

According to *American Public Health Association*, the lack of accepted CHW standards in definition, core competencies and scope of practice, often impedes CHWs' ability to link families with a full range of community supports (APHA, 2001). Wiggins *et al* (1998 as cited in Spencer, 2010) contend that CHWs only receive programme-specific or informal on-the-job training instead of a formal education and training programme that would enable CHWs to undertake a broad set of CHW roles.

In many other CHW programmes, the links between the population and the CHW are more distant and do not function well. Studies have identified several factors that have a negative effect on the relationship between communities and CHWs. They assert that, CHWs often do not have the skills or ability to communicate with and mobilize the community well. Kahssay (1990), for instance, attributes the low capabilities of CHW interaction with the community to provide quality health services, to skills that are not emphasized in training sessions and ill-prepared supervisors to perform their supervisory function well. Hongvivatana (1988) (as cited in Lehmann & Sanders, 2007) indicates that CHWs themselves have not always been properly trained and some do not have clear understanding of what they are expected to do for the community. As a result, communities are not adequately sensitized to the benefits of CHW programmes, and are not aware of the role of CHW or the importance of community participation.

However, literature also shows that merely training CHWs is not enough to ensure that they have an impact on health. This analysis is necessary to provide important information

on the investment required for initial and continuing education of CHWs, as well as on the investment required to enable the health system to provide CHWs with adequate supervision, supplies, equipment and communication with health professionals (Abbatt, 2005). Prasad and Muraleedharan (2007), in their review of the *concepts, practice and policy concerns of Community Health Workers*, identified in an empirical analysis on the contents and approach of various training programmes and their influence on performance of CHWs. According to them, they have been minimal.

It has been argued that where national CHW programmes have failed, it was not attributed to a failure of the concept of CHWs or PHC, but as a result of lack of support and supervision necessary to make them effective. Hall (2007), in his study on African Medical and Research Foundation (AMREF) programme indicates that, the programme was to design appropriate training and documentation appropriate to CHW education, support to motivate and retain health workers, among others, but there was lack of proper training and motivation (i.e. recognition, appreciation, supervision and technical support) for CHW. As a result there were difficulties in ensuring continuity and quality of care. Reviews by Haines *et al* (2007) also highlight how the role of gender, education, training, feedback and monitoring system, and incentives and career prospects, economic resource base and political commitment largely determine the amount of attention received in the design and implementation of CHW schemes.

A study by Global HealthTrust has observed that, while it is obvious that good training is essential for CHWs, the contents and duration of training could be decided only along with decision on the range and nature of services to be offered by them, and the level of education that they already possess. It has been highlighted that in general there has been a lack of performance due to inadequate capacity of training institutions and lack of

capacity of trainers to understand the local community structure (Global HealthTrust, 2003).

Kitaw *et al* also conduct an assessment of the first year of the Health Environmental Workers (HEW) training program by examining program inputs, processes, and outputs. Some of the challenges included inadequate facilities for HEW training workshops, inconsistent distribution of stipends for HEWs, and minimal practical training for HEWs. However, HEWs were committed to working in rural areas under this program despite the initial start-up difficulties. Haines *et al* (2007) however, advise that, community health workers are not a panacea for weak health systems and will need focussed tasks, adequate remuneration, training, supervision, and the active involvement of the communities in which they work.

2.3.8. The Community-Based Health Planning and Services (CHPS) Initiative

The Community-Based Health Planning and Services (CHPS) Initiative is a national programme for reorienting and relocating primary health care from sub-district health centres to convenient community locations. The CHPS a process of strategic planning and implementation of Primary Health activities within the community with the full involvement and participation of community members. It is a process that emphasizes preventive health care and education through effective communication and community mobilization. As such, it is a national mobilization of grass roots action and leadership in health and family planning (GHS/PPMED, 2002).

The Operational Policy Document defines CHPS Initiative as 'the mobilization of community leadership, decision making and resources in a defined catchment area (zone), the placement of reoriented frontline health staff [known as Community Health Officers

(CHOs)], with logistics support and community volunteer systems to provide services according to the principle of primary health care (GHS, 2005). The document considers CHPS as a "close-to-client" service delivery system. Thus, it is "*essential health care based on practical, scientifically sound and socially acceptable methods and technology made universal accessible to individuals and families in the community through their participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-determination – It focuses on the health by the people by placing people's health in people's hands*" (GHS, 2005, p7).

The CHPS initiative therefore, characterizes the key strategy for changing primary health care and family planning from a focus on clinical care at district and sub-district levels to a new focus on convenient and high quality services at community and doorstep locations. This national programme of service delivery change is achieved by forging partnerships between health care providers and the communities they serve.

The CHPS service delivery initiative was developed as a result of a pilot project by the Ministry of Health with support from other partners through the Navrongo Health Research Centre called Community Health and Family Planning Projects (CHFP) usually referred to as the Navrongo Experiment. The research results demonstrated that placing a nurse in the community substantially reduces childhood mortality, and combining nurse outreach with traditional leader and volunteer involvement builds male participation in family planning and improves health service system accountability (Debpuur, Phillips, Jackson, Nazzar, Ngom, Binka, 2002).

Debpuur et al. (2002) records indicated that by 1997 there was a sufficient evidence to show that the Navrongo experiment was having an impact on the beneficiaries. A model of the project was then replicated in Nkwanta district in the Volta Region. CHPS has since

been implemented in the Birim North District in the Eastern Region and the Juabeso Bia District in the Western Region. Each of these has some unique features, yet all true to the original plan/purpose of the Navrongo experiment. They also have their unique challenges associated with them**.** In an Annual Health Sector Review Report, Binka et al (2009), indicated that, CHPS policy initiatives should aim to increase outreach programmes to make relevant, specialist, periodic, and time-bound services available close to clients, strengthen delivery of effective health promotion on environmental and lifestyle related diseases at the community level thereby serving as frontline health care delivery mechanism.

The main CHPS activities include a situation analysis of health care delivery within a given community; community consultation on health needs and prioritization of such needs; identifying and mobilizing resources both within and outside the community; designing a culturally appropriate service delivery package; providing health and family planning services to community members on an individual and household basis; and conducting early diagnosis and treatment of common ailments and timely referrals of serious cases (GHS, 2005). The key players in the process are Community Health Officers (CHOs); Community Health Volunteers (CHV); Community Health Committees (CHC); and District Health Management Teams (DHMTs) and Sub-District Health Teams (SDHTs)

The first essential and key step in implementing CHPS is for all districts to conduct a situation analysis of their service delivery and coverage (GHS, 2005). This situation analysis should define minimum indicators to warrant start-up in CHPS for a district, including physical distance, coverage for basic services and existing disease patterns. In line with this policy direction, the community level (Level A) of the District Health System should be implemented such that all people living in Ghana are covered by its services by

the year 2015. To achieve this, all sub-districts within every district should be demarcated into service delivery 'zones' following the guidelines provided by in the National Implementation Plan.

Once the decision is taken by the DHMTs and the communities, transformation of the community health systems from clinic-focused care to community-based care zones then involves the achievement of 'milestones ' that are documented in a monitoring systems. According the CHPS Operational Policy Document (GHS, 2005), the following sequential milestones are essential to the establishment of a fully functional CHPS zone within a sub-district which include preliminary planning; community entry; health compound construction; and procurement of essential equipment. There has been a significant increase in the number of functional CHPS nationwide following the relatively slow start in CHPS implementation over the previous years. Implementation of functional CHPS has doubled from 868 in 2009 to 1,675 in 2011. This increase has also been met with a correlated increase in the number of community health officers, most of whom have already had training in CHPS service delivery as part of their pre-service training. A functional CHPS zone is defined as a geographically well-defined area within a sub-district, with an assigned a CHO who has started offering community services including home visits to clients living in the zone. A CHPS is functional although one or more key milestones such a compound may not have been provided. The population covered by CHPS increased from 16.4% in 2009 to 21.78% in 2011 (GHS 2011).

It has been particularly difficult to recruit and retain health workers in Ghana's rural areas. Health workers would rather live in urban areas for many reasons, including schools, housing, other job opportunities, greater cultural, recreational and commercial diversity,

telecommunications and proximity to family and friends (Capacity Project/USAID, 2006). According to a report by Capacity Project/USAID (2006) to address workforce shortages in rural areas, Ghana has used auxiliary nurses known as community health nurses (CHNs) who are trained to provide ambulatory care for malaria, childhood immunizations, family planning and community health education. However, CHN programme coverage is constrained by logistics problems, supervisory lapses and resource shortages. Awoonor-Williams, Feinglass, Tobey, Vaughan-Smith, Nyonator, &. Jones (2004) indicate that CHNs work from MOH sub-district health centres and occasionally conduct outreach services. These static health centres are less effective due to their distance from rural communities and because of their often sporadic and poorly managed outreach to rural residents. During CHN working hours, people are often away from home, usually working in their plantations. Also, CHNs lack status at the health centres, which reduces their sense of professionalism and therefore, their job motivation. Another problem at static centres is that people tend to wait until a condition is serious before seeking care, which is often too late. There are multiple reasons, such as lack of awareness of initial symptoms, difficulty getting to the centres and perceived or real affordability of health services. It may relate to issues of environmental health, antenatal care, disease outbreaks and others that community surveillance and other interventions could address (Awoonor-Williams et al, 2004).

However, review reports on the implementation of the CHPS programme continually point to the fact that most CHOs lack requisite skills for community mobilization (Binka et al, 2009). There are also concerns about the quality of teaching at the CHNTS, which provides pre-training for the CHOs due to shortage of tutors, preceptors, equipped facilities and field practice sites (Capacity Project/USAID, 2006). It has been suggested that the human

resource base must be re-examined to take into consideration the skill mix of the CHO, which emphasizes on all components (i.e. curative, preventive and promotive health care) (Binka et al, 2009).

One of the major post-training challenges identified of CHOs is inadequate skill mix. This is so because given the broad array of services expected from CHOs, their skills need to be upgraded to improve their functionality and skill mix such as midwifery. Again, the CHPS policy document stipulates that the Basic Package of interventions to be delivered by the CHO is in line with the concept of primary health care (GHS, 2005). This then requires the CHO to have balanced curative and preventive/promotional skills for this task. However, it is often detected that community participation and mobilization component of the CHPS programme which forms the backbone of preventive activities and home visitation is completely absent in the programme leading to more static and curative services. Thus, most CHOs lack the requisite skills to engage and integrate the community in CHPS activities. Investigating into the nature of the CHPS training programmes is therefore imperative to unearth successes chalked as well challenges faced.

The WHO/GHWA (2008) report of some challenges the CHPS initiative has been experiencing in the past, and which it still faces. There are still vacancies in more appealing locations due to difficulties in getting staff to accept rural postings especially when it is not accompanied by incentives. As a result, many zones are not functioning as prescribed, and are evolving into a lower tier of facility-based services with limited home-based or outreach services. In addition, community health officers are being posted with insufficient resources, including lack of transport for home visits, training and supervision. Support is limited both from the health system and the community, and there is little ownership by

the latter (GHWA (2008). Sagoe (2005) (as cited in Capacity Project/USAID, 2006) indicates that the Ghana Health Service (GHS) had deployed 310 community health officers across Ghana's ten regions by 2004, and the GHS goal at that time was to have 5,280 CHOs within ten years. According to Sagoe (2005), there were about 2,000 non-CHO community health nurses in static health facilities and it was possible to redeploy up to 70% of that number as CHOs. With this scenario, what it means is that many Ghanaians especially those in remote and hard-to-reach communities are deprived of basic health care services.

2.3.9 GHS In-Service-Training Policy

The adoption of CHPS as the strategy for improving access to health was one of the major recent developments in the health sector which necessitated a review of the in-service training policy published in 1997 to address the human resource capacity development needs (GHS/HRDD, 2005). According to the revised policy, regular in-service training has been identified as one of the strategies of sustaining the competencies, morale and quality of the health workforce aimed at improving performance to achieve the desired sector objectives. It is designed to build on the basic level training of staff so as to make them meet the ever changing health demands. The basic training acquired by health staff prepares them for entry into the health sector to provide quality health care to the community members. While practicing, health staff requires continuous development and capacity building. This is because the health sector is dynamic and health needs of the population are ever changing with emerging diseases, new technologies, and increasing consumer expectations.

The Ghana Health Service (GHS) considers in-service training as an essential investment in its staff, aimed primarily at improving on performance. It recognizes that continuous

updating of the knowledge, attitudes and skills of its staff is an essential feature of maintaining competent professional practice, staff motivation and morale. It also acknowledges that new appointees and entrants must be oriented to the vision and culture of the Service. The GHS is therefore committed to institutionalizing In-Service Training for its staff (GHS/HRDD, 2005).

The revised policy defines In-Service Training (IST) programmes as learning experiences designed to upgrade and improve on the competencies of staff to improve job performance while in service (GHS/HRDD, 2005). The policy identifies three (3) main types of In-service Training namely (a) Structured In-Service Training (SIST), (b) Remedial / Ad hoc Training, and (c) Induction and Orientation. These may be provided in various forms or approaches namely (i) SIST courses; (ii) Study Tours; (iii) Attachment; (iv) Fellowships (Long/Short; Local/External); (v) Post-Basic Training; (vi) On the job training (OJT); and (vii) Distance Learning / Education (GHS/HRDD, 2005).

Structured and standardised in-service training represents those training programmes that are based on clearly outlined curricula with clearly defined target groups, objectives, content areas, and delivery methods. Structured in-service training focuses on: (i) provision of functional knowledge, skills and attitudes required by staff who perform similar functions irrespective of their geographical locations; (ii) comparability of the objectives, content, mode of delivery, training approaches and duration of training for trainees with similar backgrounds; and (iii) systematic process of monitoring training delivery and post training performances of beneficiaries.

Remedial or Ad hoc training programmes, on the other hand, refer to any training interventions, which has been designed and organized to fill gaps in knowledge, skills and attitudes that are identified among staff in a defined practice area or institution. They may

also take the form of introducing new skills and new ways of performing some procedures, for example when a new drug or technology is being introduced into the health sector. Whilst, Induction and Orientation is a formally organized initiation of new entrants into the Service or preparation of officers who assume new positions or responsibilities. It shall include officers who are re-deployed or re-assigned with new responsibilities (GHS/HRDD, 2005).

According to the CHPS Policy document (GHS 2005), CHPS health workforce objectives are to:

(1) Reduce geographic barriers to health care for deprived and underserved communities; (2) Increase the availability of health staff for community outreach, recruiting from rural areas wherever possible; (3) Build community involvement and ownership in the provision of health services; and (4) strengthen local government involvement in financing health care delivery in deprived communities.

According to this Policy document, the strategies to reach these objectives include (i) increasing the use and productivity of existing community health nurses by retraining some of them to become CHOs; (ii) training a large number of new CHN/CHOs to meet demand for their services and focus recruitment on rural areas; (iii) involving district assemblies in the sponsorship of students in community health nursing training schools with an obligation to serve in the sponsoring district; (iv) mobilizing national and local resources for CHPS implementation; (v) providing adequate supervision and access to in-service training for CHOs; and (vi) providing orientation and training for both levels of volunteers.

For the above CHPS objectives to be achieved through the identified strategies, it is obvious that the CHPS training programmes for especially CHOs should be a key factor.

The conversion from CHN to CHO is basically as a result of the additional training programmes that are given to a posted CHN to the district. Occasionally, the quality of products from CHNTS is questioned due to overcrowding, poor tutor-students ratio, inadequate field practicum, inadequate teaching-learning materials, among others. Again, with regards to the enormous tasks expected CHOs, they are expected to function essentially as *change agent* in the health sector of their communities. It is envisaged that training in both clinical and social science (non-clinical) components (e.g. community mobilization, participatory approaches, and behavior change communication, etc) will provide CHOs with the mix skills critically needed to perform the roles expected of them both effectively and efficiently.

This training is provided by the GHS, specifically, the DHMT. The CHPS in-service training programmes involves retraining CHNs to become CHOs, and offers courses to upgrade and refresh CHO skills and knowledge. The GHS has developed 14 training modules to reorient CHNs to become CHOs. The entire training program lasts ten days and can be delivered together or broken down into several shorter sessions. Each module has two components: a reference manual and a work book, plus a guide for facilitators. The content of the training modules is also added to the two-year training program for CHNs at the CHNTS for those students interested in becoming CHOs. After they have completed all of their studies CHO candidates undergo a six-month internship with a CHO. There are also orientation and training programs for community-based volunteers and community health committees. The GHS and MOH are considering upgrading the skills of CHOs to include midwifery. Current CHO training covers basic obstetric care, which is not enough for midwifery practice (Capacity Project/USAID, 2006).

In summary, it is obvious from the literature that the community health worker has a profound impact on the health of the population, especially, those in deprived communities. It is also clear that a key component of community health work is training. However, in reviewing the literature, there did not seem to be much work done on the Community Health Officers training programme in particular of the CHPS initiative in Ghana. In the meanwhile, the research methodology that validates the study is presented in the next chapter.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology of the study which focuses on research design, the population, sample and sampling procedure, instruments and methods used for gathering data, research ethics and data analysis.

3.2 Research Design

A descriptive cross-sectional survey was conducted on Community Health Officers and Managers of CHOs Training programme in three districts of the Greater Accra Region. Information about the CHOs training was gathered from both primary and secondary sources. Secondary data were collected through review of policy documents, training reports, training materials/modules and CHOs training log books. The use of multiple sources of data gathered from both primary and secondary sources provided a comprehensive understanding on the nature of CHO training programme in these districts.

3.3 Study Population

The population for the study consisted of all the Community Health Officers (CHOs) in the operational CHPS zones in the three selected districts of the Greater Accra region. There were a total of 66 CHPS zones in the 10 districts of the Greater Accra region with 197 CHOs at the beginning of 2012 (MOH, 2012). The management of the CHPS training programme of these districts such District Directors of Health Services (DDHS), CHPS Coordinators, facilitators or resource persons as well as supervisors also constituted the population for the study.

3.4 Sampling Method

It was difficult to survey all the 66 CHPS zones that existed in the 10 districts of the Greater Accra Region during the period of data collection in 2012. This was due to the vastness of the Greater Accra Region, remoteness of some the districts, budgetary constrained, time limitation and access. As such, three (3) districts were purposively selected based on the number of functional CHPS compounds they have. Two of the districts selected mimicked rural and deprived settings for which CHPS initiative came about, while the third one also mimicked an emerging urban periphery setting usually referred to as Urban CHPS. Purposive sampling technique was deemed appropriate technique for the study because it allowed for selection of the districts with most CHPS zones where the CHOs, who are the target population for the study ply their profession. Purposive sampling method was also employed to assist in gathering information from the CHOs and other key informants such as the DDHSs and the CHPS Coordinators This method was deemed appropriate as it ensured that the relevant information was obtained. In the first instance the respective districts where CHPS compounds are operational in the Greater Accra Region were clustered into rural and peri-urban. Out of cluster,

3.5 Sample Size

The quantitative method employed semi-structured questionnaire for all the CHOs in the four districts. There was a total of 108 respondents from 28 CHPS zones as shown in Table 3.1. This sample size constitutes more than half (55%) of CHOs in the region. Since the sample size was close enough to the entire population of the CHOs in the region, the sample responses could be generalised to the whole population. All the CHOs in the three selected districts were involved in the study. The survey of all the CHOs with qualitative data from the managers of the training programme in the three selected districts also

ensured gathering if comprehensive information for the study. The respondents were conveniently selected as they have all been participated in the CHOs training programme as part of their initiation to assume the position of a CHO. With regards to the qualitative methods, interview guide was used to elicit information from eight (8) key informants in positions such the DDHSs, CHPS coordinators, facilitators and supervisors. These respondents were purposively involved in CHOs training programme either directly or indirectly through designing of training programme, facilitating in the training, overseeing to provision of resource and logistics, and supervising CHOs. There was also a checklist for non-participant observation to observe activities during training sessions. Table 3.1 also indicates the background characteristics of the respondents.

Table 3.1: Background Characteristics of the Respondents and Number of CHPS Zones.

Characteristics	CHO		CHPS Zones
	n	(%)	n
Age			
20-24	17	15.7	
25-29	57	52.8	
30-34	21	19.4	
35-39	1	0.9	
45-49	3	2.8	
50-54	7	6.5	
55-59	2	1.9	
Total	***108***	***100.0***	
Gender			
Male	5	4.6	
Female	103	95.4	
Total	***108***	***100.0***	
CHNS attended			
Oda CHNTS	29	26.9	
Esiama CHNTS	26	24.1	
Winneba CHNTS	13	12.0	
Ho CHNTS	25	23.1	
Jirapa Community	6	5.6	
Sunyani CHNTS	4	3.7	
Fomena CHNTS	2	1.9	
Other	3	2.8	
Total	***108***	***100.0***	
Year completed CHNTS			
1975-1979	4	3.7	
1990-1994	6	5.6	
1995-1999	5	4.6	
2000-2004	4	3.7	
2005-2009	49	45.4	
2010-2012	40	37.0	
Total	***108***	***100.0***	
Number of years worked as CHO			
One year	54	50.0	
Two years	23	21.3	
three years	11	10.2	
Four years	2	1.9	
Five years	3	2.8	
More than five years	15	13.9	
Total	***108***	***100.0***	
District			
Dangme West	48	44.4	12
Ga East	34	31.5	9
Ga West	26	24.1	7
Total	***108***	***100.0***	***28***

3.6 Data Collection Techniques

Due to the nature of the study which requires multi sources of data, four different types of instruments namely semi-structured questionnaire; interview guide, checklist; and desk reviews were employed. The semi-structured questionnaire was employed to gather mainly quantitative information from the CHOs; interview guide for in-depth interviews with key informants; checklist for non-participant observation of training activities during training sessions; and desk reviews of policy documents, training reports, training materials/modules and CHOs training log books and registers. These tools (especially semi-structured questionnaire and interview guide) were formulated based on the objectives of the study captured under the following headings: (1) training content, (2) training methods, (3 training resources), (4) post training performance, and (5) training challenges. No potential respondent opted out of the study during the study period.

The semi-structured questionnaire was made up of mainly closed-ended questions with a few open-ended questions to elicit respondents' experience about the training programme. In all, there were 21 questions with four of them in a table form. The responses were coded numerically either from 1 to 2 or 5, depending on the item for the quantitative analysis. That is, a 5-point Likert scale to assess the level of effectiveness of the training inputs.

Respondents were requested to reflect on the level of effectiveness and benefits of training inputs they partook before assuming the position of CHOs the with respect to CHO training programme. The researcher administered over 90% of the questionnaire personally to CHOs, and those who were not met at post (CHPS zones) had their questionnaires left behind for them to complete later. The CHOs training log books were examined to confirm in-service training and refresher courses attended. Each questionnaire was coded and this facilitated their retrieval as way of ensuring 100% responses.

The interview guide was used for in-depth interview with key informants to provide their perspectives on the nature of CHOs training programme. Each interview lasted approximately fifty minutes and was also recorded in note form as close to verbatim as possible and tape recorded as well. All the interviews were conducted in English with the participants' consent for the recording. All the identified key informants were ready and willing to share their experience on the CHOs training.

Checklists were also used to document non-participant observation and desk reviews. In the case of the observation, the researcher had the opportunity to sit in ongoing training sessions to observe how CHOs in-service training is conducted. The training was organised for 12 new CHNs who were being re-oriented to become CHOs at the District Health Directorate at Dodowa from October 1 to 12, 2012. The researcher was also allowed to accompany the trainees on a field visit exercise to the community for a practical session. A checklist was designed to assess salient activities observed which took into cognisance learning materials available, teaching methods adopted, sitting arrangements, general training environments, among others. With the desk reviews, the checklist was used to extract information from documents such as policy documents, training reports, training materials and registers taking cognisance of training content, suggested teaching methods, duration of training, post training evaluations, among others. Table 3.3 illustrates these data collecting tools with the variable being measured.

3.7 Reliability and Validity of Instrument

The study ensured that the data collection as well as analysis was reliable and valid appropriate for the study. In the first place the designing of the tools were guided by

literature review with particular focus on the conceptual framework on the Instructional Design Process for Effective Training programme. Identification of variables from each of the objectives of the study ensured designing of appropriate tools with the relevant questions as shown in Table 3.3. To avoid recall bias, all the modules of the training programme were outlined in the semi-structured questionnaire to enable respondents to recall these modules. The same idea was also adopted for training methods identified on the training programme. Pretesting of the data collection tool enabled the researcher to amend anomalies identified which ensured the appropriateness of the tool for the study. The use of multiple sources of data allowed for triangulation of data from diverse issues. All these efforts ensured robustness of collection of the relevant information. Systematic processes in reducing data from the multiple sources through careful transcribing, coding and categorization was ensued. Academic supervisor providing peer debriefing and support improved designing of tools which nevertheless ensured the validity and reliability of this study. Again, doing member checking with respondents and feedback from the DDH and CHPS training coordinators ensured that information gathered was reliable. The researcher's long association with the two of the districts throughout the study also ensured familiarity with the issues bordering the nature of CHOs training programme.

Table 3.2: Summary of Data Collection Techniques, Tools & Analysis

Objective	**Variable**	**Res. Design**	**Data Collecting Technique**	**Tools**	**Source of Data**	**Data Analysis**
To determine the relevance of the content of the CHOs training programme in the three selected districts	Relevance of training content	Cross-sectional	Questionnaire IDI Desk Review	Semi-structured Questionnaire Interview. Guide Checklist	CHOs DHMT Officials (eg. CHPS Coord.) CHOs Log Books/ CHPS Training manuals/reports	Calculating mean score with aid of Microsoft Excel software. Transcript. Manual Coding and Analysis) Analyse according number and types received
To determine the effectiveness of the methods of the CHOs training programme in the three selected districts	Effectiveness of training methods	Cross-sectional	IDI Questionnaire Non-participant observation Desk Review	Interview Guide Semi-structured Questionnaire Checklist Checklist	DHMT Officials (eg. CHPS Coord.) CHOs CHOs Training sessions CHOs Log Books/ CHPS Training manuals/reports	Transcript. Manual Coding and Analysis) Calculating mean score with aid of Microsoft Excel software. Manual Coding Manual Coding and Analysis
To determine the adequacy of training resources in ensuring the realisation of training objectives	Adequacy of training resources	Cross-sectional	IDI Questionnaire Non-participant observation	Interview Guide Semi--structured Questionnaire Checklist	DHMT Officials (eg. CHPS Coord.) CHOs CHOs Training sessions	Transcript. Manual Coding and Analysis) Calculating mean score with aid of Microsoft Excel software. Manual Coding

Objective	Variable	Res. Design	Data Collecting Technique	Tools	Source of Data	Data Analysis
To determine the level of linkage between training and post-training performance of CHOs	CHOs post-training performance	Cross-sectional	IDI Questionnaire Retrospective Desk Review	Interview Guide Structured Questionnaire Checklist	DHMT Officials (eg. CHPS Coord.) CHOs CHOs Training and Post training reports	Transcript. Manual Coding and Analysis) Calculating mean score with aid of Microsoft Excel software. Manual coding of report on CHOs performance by supervisors
To identify the challenges facing trainees or co-ordinators of the CHOs training programmes	Training programme challenges	Cross-sectional	IDI Questionnaire	Interview Guide Semi-structured Questionnaire	DHMT Officials (eg. CHPS Coord.) CHOs	Transcript. Manual Coding and Analysis) Calculating mean score with aid of Microsoft Excel software.

3.8 Analysis of Data

Data analysis provided the researcher the opportunity to make sense of the data collected. The data was analysed both quantitatively and qualitatively. The data collected through the semi-structured questionnaire was analysed quantitatively while the data collected through in-depth interview, nonparticipant observation and desk reviews were analysed qualitatively.

With the quantitative study, the raw data were coded and entered directly into the Statistical Package for Social Sciences (SPSS) and manually checked. Thus, the coded data was entered into SPSS data editor after the spreadsheet has been designed and variables defined. The open-ended questions on the semi-structured tool were typed into Excel, coded, and classified by themes and sorted for analysis. Primary quantitative data analysis was done in Excel where frequency and graphs were generated and used to depict responses from trainees.

This tool consisted largely of statements assessing the training's inputs in relation to training output where respondents were made to respond to a 5-point Likert scale (1 = very low, 5 = very high) to indicate the level of effectiveness, relevance, competence or adequacy of the training inputs, as the case may be. Quantitative data was captured electronically using Microsoft Excel software. The responses on the questionnaire were scored using a 5-point response scale with "very low scoring a 1 and "very high" scoring a 5. An average score was calculated for each response for each training input using the formula as adopted by Simba, Mukose & Bazeyo (2014):

$$\text{Average (Mean) score} = ([a \times 1] + [b \times 2] + [c \times 3] + [d \times 4] + [e \times 5])/ (a + b + c + d + e)$$

Whereby, a = number of respondents who rated very low; b = number of respondents who rated low; c = number of respondents whose rate was average; d = number of respondents who rated high; e = number of respondents who rated very high. The interpretation of the scores also adopted Simba, Mukose & Bazeyo (2014) criteria as: ≥3.8 for very high; 3.0–3.79 for average; and <3.0 in relation to training inputs being measured. Thus, the focus of the analysis was to assess the level of the training inputs in terms of their relevance, effectiveness, and benefits, as the case may be.

The qualitative data instrument consisted of in-depth interview, and non-participant observations, as well as desk reviews into training materials and reports. The in-depth interview was to elicit participants' perceptions and experiences with the training process. Apart from notes taken during the interview, in-depth interviews were recorded and transcribed. Thus, the transcribed text was checked against the written notes, coded and manually categorised them into to identifiable and emerging themes, commonalities, and contrasts. The key themes and illustrative quotes were presented as part of the results as a triangulation to the quantitative data.

Identifiable issues emerging for both the desk reviews and for non-participant observation were also categorised and juxtaposed into the main findings. For instance, observation of the adoption of adult learning methods captured on the checklist was used to triangulate information gathered from quantitative data. This allowed for a holistic picture of the nature of the CHOs training programme.

3.9 Pretest

The tools (Questionnaire and Interview guide) were pretested in the neighbouring district, i.e. the Ga South Municipality. In all, ten questionnaire for the CHOs were administered and four interview guides for a CHPS coordinator, two trainers and a supervisor, were conducted. The pretesting was done to enable the researcher to identify potential problems of the instruments, and if necessary modify them. This was done to help eliminate possible inconsistencies and biases from the study. For instance, the question on the professional qualification in the questionnaire was eliminated as it was not relevant to some of the respondents.

3.10 Research Ethics

All ethical considerations associated with the conduct of the research were observed. These included the negotiation of access to all people who had a role to play in the study, and institutions in which the study was to be based, as well as the collection of data. The researcher obtained an introductory letter from the Institute of Continuing and Distance Education, University of Ghana, Legon to enable him access entry to the three District Health Directorates, where permission letters to the various CHPS compounds/zones were provided to facilitate his encounter with the CHOs. In addition, the researcher took time to explain the purpose of the research to respondents. There was a consent form for the respondents to sign as an indication of their willingness to partake in the study. The respondents were assured that the information provided for the study would be used for academic purpose only, and would be treated as confidential. Permission was sought from key informants to interview them and also to tape record the interviews. Again, assurance was given for to treat to treat the recorded interviews with the privacy and confidentiality that they deserve. Names of individuals were not attached to individual quotations, but

coded their positions and districts against the quotations. The respondents were assured that the study would not pose any harm to them but rather, the outcomes of the study would help the implementers of CHPS initiative to improve CHOs training for provision of improved service delivery for communities. Instances where a CHOs became busy a client, the researcher waited for her to finish attending to the client before administering of questionnaire started or continued, whichever the case it was. This ensured so that the health of clients were not adversely affected because of the study.

3.11 Problems Encountered on the Field

The researcher encountered a number of challenges during the field work. Firstly, the vastness of the districts coupled with the remoteness and scattering nature of the communities, made access to the CHPS compounds was a herculean task. Most of the CHPS compounds, especially, those found in the Dangme West and Ga West districts were quite distant from the district capital, quite remote which made their accessibility a challenge to the researcher. It was also often quite difficult to get full attention of CHOs at their zones when even met, as they would be taken care of patients. In other instances, they would be on outreach programme and the researcher had to wait amidst considering how to connect to next CHPS compound or to come another day. A lot of effort was made to retrieve questionnaire left behind for CHOs who were met at post to complete later. In some cases, arrangements were made for the CHOs to send their questionnaire to the District Health Directorate offices for collection. All these unduly prolong the period for data collection. A sizable number of the CHOs were also on maternal leaves, but to reach 100% collection of data, effort were made to have them also complete the questionnaire. It took the researcher even longer period to have such completed questionnaire retrieved, as most of these CHOs were completely away from their CHPS compounds.

On the whole, the survey provided background information relating pre-training and years of work experience of the respondents in the three selected districts of the Greater Accra Region. The data from the study provided information on the structured in-service training of the CHOs training programme as comprehensive enough to impart the necessary competences required of CHOs. More importantly, the data also provided information on the training methods including adult learning methods adopted for the training programme for the realisation of the training objectives. Furthermore, the survey provided information as to the link between the CHOs training and the post training performance. The presentation of results from the analysis of data obtained from the field involving the respondents that were survey are discussed in the next chapter.

CHAPTER FOUR

ANALYSIS OF DATA AND PRESENTATION OF RESULTS

4.1. Introduction

This chapter covers the presentation and analysis of the results of the data obtained from the field. The analysis and the descriptions were carried out in consonance with the objectives of the study. The first part covers issues on the relevance of the content training programme while the second looks at the effectiveness of training methods adopted during sessions and the third assesses the training resources. The fourth looks at the linkage between the CHOs training and post training performance whereas the fifth part covers issues on training challenges. For the background information of the respondents, see Appendix E.

4.2 Relevance of the Content of CHOs Training Programme

Both comprehensiveness and authenticity of the CHOs training content was assessed by respondents in order to ascertain its relevance to equipping trainees with the requisite knowledge, skills and attitude to perform their role as CHOs. Respondents were made to indicate how relevant each of the training modules has capacitated them to perform their role on a Likert scale from very low (1) to very high (5). A mean score of 3.8 or above constitutes very high in terms of the module's relevance; 3.0–3.79 for average; while a module mean score below 3.0 is considered very low with respect to its relevance. Table 4.1 illustrates mean score for each of the modules of the CHOs training programme. This section also discusses the duration of the training programme and training materials.

Table 4. 1: Respondents' Assessment of Relevance of the Training Content to Job Roles

Broad Area of Training Content	Topic (Module)	Mean Score (n = 108)
Curative	*Safe emergency Delivery*	4.5
	Postnatal and Infant Care	4.7
	HIV/AIDS	4.5
	Managing Common Ailments and Emergencies in Home and Community	4.6
Preventive	*Home Visiting for Health Activities*	4.8
	Family Planning	4.9
	Antenatal Care	4.7
	Immunization	4.8
	Disease Surveillance and Control	4.6
Promotive	*Behaviour Change Communication*	4.6
	Promoting Good Nutrition in Individuals and Community	4.7
	Community Entry and Mobilization	4.6
	Communication and Communicating Health	4.6
Management	*Managing CHO Activities*	4.7
	Supporting Community Health Volunteers	4.5
	Working with Communities	4.7
	Professional Adjustment	4.6
	Managing Drugs and Supplies	4.4
	Health information Management at CHPS Zone	4.7
	Report Writing	4.9

4.2.1 Relevance of the content of training programme to CHOs' job roles

Table 4.1 outlines the content of the CHOs training programme. These are modules entailed in the CHOs training manual, which are in three volumes. There are other training materials that have been part of training programme for some time now. The content of the training programme was designed purposely to impart knowledge, skills and attitudes to trainees to enhance the management of CHPS zones and improve the quality of services delivered. In all, there are 20 modules in the three volumes of the training manual which this study has categorised them into four broad areas according to their focus. They include curative, preventive, promotive and management broad areas as depicted in Table 4.1. The curative modules deal with training content that help trainees to manage minor ailments. The preventive modules also assist trainees to contribute to preventing diseases in the community through control measures such as immunisation. The promotive modules on the other hand, equip trainees to empower the community members on behavioural change so as to make informed decisions about their health needs. While the management aspect of the modules enables the trainees to manage the CHPS zone in particular and the compound in general.

With regards to the relevance of the content of the CHOs training programme in equipping the CHOs to perform their roles, all the modules delivered at during the training sessions were rated very high by the CHOs in the selected districts as illustrated in Table 4.1. The relevance for the mean score ranges from 4.4 for *Managing Drugs and Supplies* module to 4.9 for *Family Planning* and *Report Writing* modules respectively. By inspection of Table 4.1, it is apparent that the relevance attached to the preventive broad areas of the modules is slightly higher than the others with the least mean score of 4.6 in the case of *Disease Surveillance and Control* module.

With qualitative data from the key informants, the management of the CHOs training programme, considered modules such as Managing CHO Activities; Professional Adjustment; Home Visiting for Health Activities; Community Entry and Mobilization; Disease Surveillance and Control; Immunization; Family Planning; Safe Emergency Delivery; Promoting Good Nutrition in Individuals and Community and Health Promotion activities as very relevant to the CHO training. Two of them put it this way:

> *"Home Visiting; Resource Mobilization; Disease Surveillance; Report Writing; Collation and writing and proper documentation; and CHPS Concepts should be well explained and emphasized."* (DTC, GED).
>
> *"Job description of CHOs; Professional Adjustment; Governance and Finance, Community Entry and Mobilization; Managing Drugs and Supplies; Immunization; Family Planning; and Safe Emergency Delivery"*, (Facilitator, GWD).

Management of the training programme in the selected districts were of the view that the CHOs training as very effective and relevant. The following quotations express these opinions of the managers of the training programme:

> *"The CHOs training is very effective and relevant since it helps the CHOs to be equipped with skills and knowledge to do their work, especially in the community. The home visits draw them closer to the community members which make their work easier and effective",* (Facilitator, DWD).
>
> *"It is relevant because the community members are empowered to make informed choices in respect of their health through the activities of the CHOs" ...,* (Facilitator, GED).
>
> *"Preventive medicine upholds home visits and health education which is the hallmark of CHPS. So this makes me think the CHOs training is improving community health"* (Facilitator, GWD).

4.2.2 Duration of CHOs training programme

The CHOs training programme is a holistic training package where the content of the training programme are delivered, and it constitutes key component of the CHPS initiative.

It is the training that converts or re-orients CHNs to CHOs. It comes in the form structured in-service training as the main initial training for CHOs. Remedial (ad-hoc) and induction and orientation training which occur subsequently are other types of in-service training available to CHOs.

Table 4. 2: **Duration for CHO Training Programme**

Type of IST	Up to One week n (%)	Up to Two weeks n (%)	Up to Three weeks n (%)	Four weeks or more n (%)	Total n (%)
Structured In-service Training	33(30.6)	68 (63.0)	-	7 (6.4)	108 (100%)
Remedial or Ad-hoc Training	99 (91.7)	9 (8.3)	-	-	108 (100%)
Induction and Orientation	67(69.1)	6 (10.3)	-	-	108 (100%)

In assessing the duration for the initial training especially, majority 68 (63.0%) of CHOs received such training over a period of two weeks; 33 (30.6%) indicated they had it for one week; while 7 (6.4%) had their training for over four weeks period as depicted in Table 4.2. However, reviews of recent training reports and records at the Dangme West District DHMTs especially, showed that most of the initial training for CHOs lasted for a period of two weeks. The other two types of CHOs in-service training occurred within a duration of one week as shown in Table 4.2 above.

4.2.3 CHOs training materials and their accessibility to trainees

The CHO training package comprises the training manual made up of the Facilitators' Guide and the Workbook for trainees. These documents are complementary to each other. The job description of the CHO largely underpins the design of the CHO manual. The

Facilitator's Guide of the CHO Manual is in three volumes which cover the CHO's work, including delivering reproductive and child health services, curative care, health promotion and prevention, and health care management. The trainees are expected to work in the Workbook which contains exercises and assignments. The manual also contains case studies and role play exercises designed to equip trainees with real life experience. The CHO training programme comes with other materials that are used as supplementary to the CHO manual. These include CHPS Handbooks, CHPS Operational Policy Document, CHPS Implementation Guide, Community Mobilization Training and Community Mobilization Handbooks.

Reviews of the training materials revealed that the documents are expected to always serve as a resource for use by CHOs to improve the management of CHPS zones and improve the quality of services delivery. In that regard, the study assessed these number of trainees who had access to these materials and also possess personal copies.

Table 4. 3: **Respondents' Access and Ownership of CHOs Training materials**

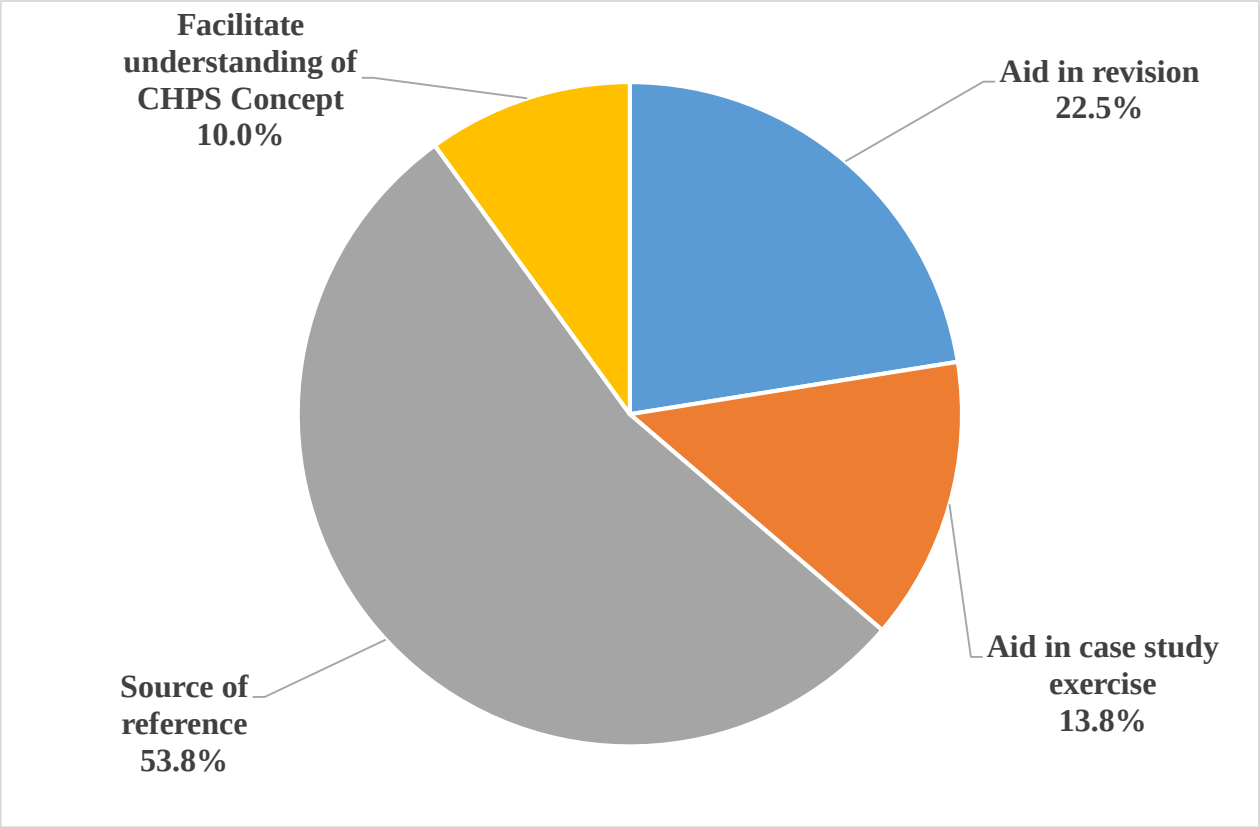
Types of Training Materials	Access During Training	Possession of Personal Copies
	n (%)	n (%)
CHPS Training Manual	80 (74.1)	44 (55.0)
CHPs Operational Policy	33 (30.6)	5 (15.2)
Other Training Material	12 (11.1)	12 (100)

Eighty (80) (74.1%) of CHOs indicated that they had access to training manual during training sessions out of which 44 (55.0%) had their personal copies; 33 (30.6%) had access to CHPS Operational Policy out of which 5 (15.5%) had their personal copies; and 12

(11.1%) had access to other training materials during training sessions of which they all had their personal copies as depicted in Table 4.3.

4.2.4 Usefulness of CHPS Training Manual

Figure 4. 1: Respondents' Assessment of Usefulness of CHPS Training Manual



Out of the 80 CHOs who had access to CHPS training manuals, 54% found the manual to be a source of reference, 14% found the manual to be an aid in case study assignments, 22% found it useful in revision; while 10% of the CHOs found the training materials useful in understanding practical sessions and duties of a CHO. The results are depicted in Figure 4.1.

The training manual together with the other training materials ultimately serve as a guide for the CHOs training programme. It ensures standards and consistency in implementing the training programme. It instructs both trainers and trainees on what is expected of them. Furthermore, regarding the usefulness of the personal copies of the manual, the respondents cited virtually the same usefulness as above.

Reviews from unpublished training reports for 12 new CHNs who were given initial training to convert them to CHOs in October 2012 at the then Dangme West district, suggests the trainees did not have access to training manual nor workbooks. However, the soft copy of the manual content was projected on PowerPoint presentations for the training. All the exercises that were supposed to be in trainees' workbooks were also projected which trainees had to copy directly from the screen and answer them in notebooks. Again, during one of the CHOs training organized for 10 CHNs in October 2013 in the same district, a non-participant observation revealed that, trainees were not provided with any training materials, not even hand-outs. Although the content in the manual was projected on PowerPoint presentations, facilitators had to either project or dictate voluminous exercises and case studies in each case. Ideally, the exercises and case studies should be in the trainees' workbook, where they could work directly in it in order to save time and facilitate the whole training. Inadequacy of the training materials during training sessions could be attributed to the fact that there was resources constraint. Readily available training materials would have further facilitated the smooth running of the training sessions and much of the content covered within the stipulated period for the training without excessive stress on the part of the resource persons and trainees alike.

4.3 Training Methods of CHO Training Programme

4.3.1 Assessment of Effectiveness of the Training Methods

In assessing the training methods that dominate training sessions, it became apparent that all the training methods namely lectures, group work, individual assignments, case study, role play, plenary presentations and fieldwork were adopted at one training session or the other.

Table 4. 4: Respondents' assessment of the frequency and the level of effectiveness of the training methods adopted

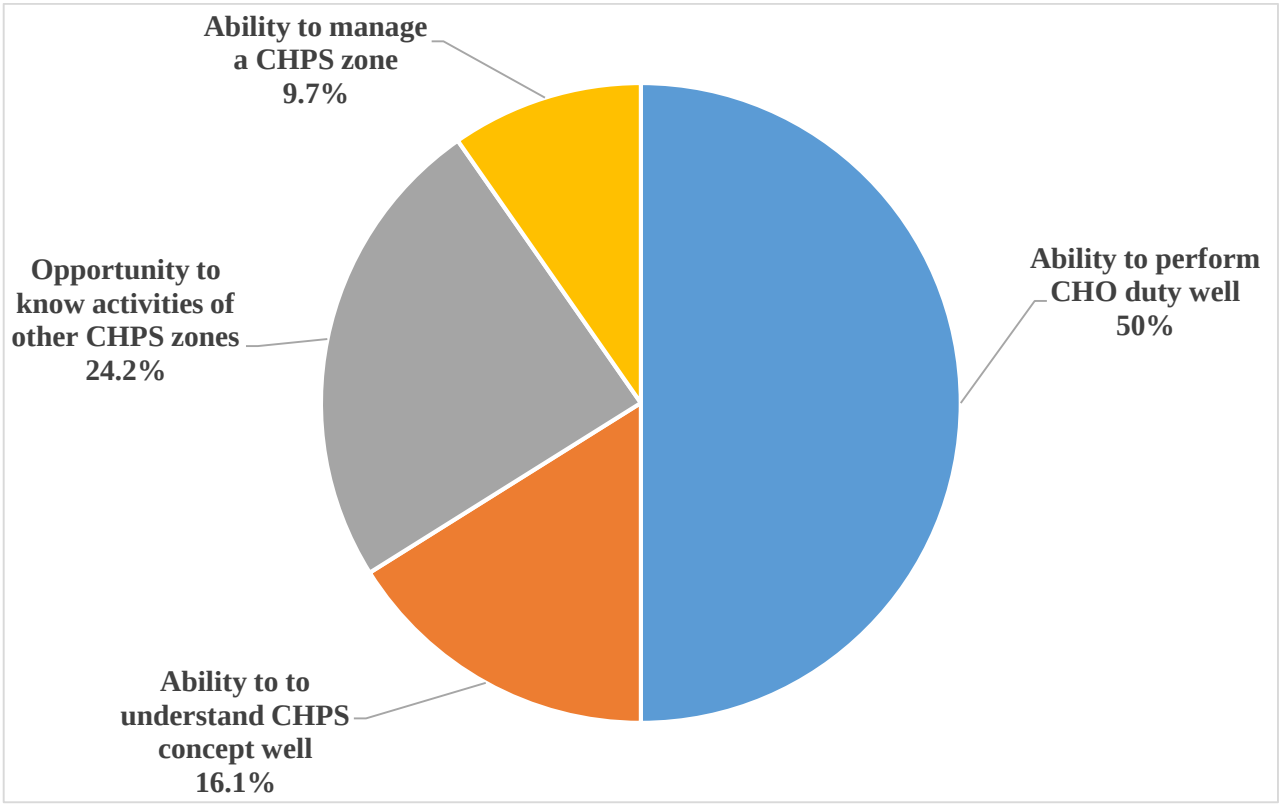
Training Methods	Mean score for frequency of adoption of methods during training sessions (n = 108)	Mean score for the level of effectiveness of methods during training sessions (n = 108)
Lectures	4.1	4.5
Group Work	4.5	4.8
Individual Assignment	4.1	4.6
Case Studies	4.3	4.8
Role Plays	4.4	4.7
Plenary Presentations	4.5	4.7
Field Visits	4.3	4.6

Responding to the frequency of adoption of these methods during training sessions, the mean score rated by the trainees ranges from 4.1 for lecture to 4.8 for group work and individual assignments. Concerning the assessment of the effectiveness of the methods in enhancing learning during training sessions, the mean scores range from 4.5 for lectures to 4.8 for group work and case study. That is, multiple training methods were employed during the training sessions and their highly ratings were remarkable. This result is depicted in Table 4.4 above.

4.3.2 Relevance of Attachment and Field Visits as components of training methods

Closely related to the training methods is attachment in the form of internship to CHPS zones as well as field visits. This is because they provide avenues for on-the-job training, which is highly recommended for community health workers training programmes. Thus, attaching CHOs to CHPS zones is to enable the trainees understudy CHPS system to enhance performance. This is done by purposefully assigning identified CHNs who have been earmarked for CHOs training or a trained CHOs who is yet to be deployed to existing CHPS compounds. The intention of such an attachment is to offer the beneficiary or the trainee the opportunity to acquire or sharpen competencies which, upon his/her deployment, shall adopt and/or replicate it in the community.

Figure 4. 2: **Contribution of CHOs Attachment to CHPS zones**



The attachment is a crucial step that provides newly trained CHNs with access to an established and experienced CHO who often imparts invaluable knowledge and experience in the provision of basic preventive and curative services to deprived communities. Apart from mentoring the newly graduated CHNs with skills, the attachment also acclimatizes the CHN, in an atmosphere devoid pressure, to live as a CHO. This is supposed to take six months. This is often in the form of on-the-job training and some of the activities embarked upon include home visits and other outreach programmes, record keeping, among others.

Concerning the practical training as part of the CHOs training programme for experiential learning, the result shows that more than half 62 (54.7%) of the CHOs have been attached to CHPS zones to learn on-the-job. Furthermore, 31 (50.0%) explained the attachment helped them to perform their duties as CHOs well; 15 (24.0%) explained that their experience aided them to know the activities that pertain in other CHPS zones; 10 (16.0%) of CHOs mentioned that the experience helped them understand CHPS concept better; while the rest 6 (10.0%) indicated it has equipped them to acquire basic skills to manage a CHPS zone. The results are depicted in Figure 4.2. Some activities undertaken by the trainees during such attachment include home visits, visit to schools for school health programmes, observation of treatment of patients, report writing, among others. However, it appears there is no laid down procedure regarding how the set of activities were to be acquired, as indicated by some responses from participants.

Additionally, during the initial CHO training, usually a day is devoted for field visits to a health facility, CHPS zone or the community. This is to enable CHOs to attain proficiencies

in the various skills needed for their practice and have real hands-on experience. This may complement the attachment as explained above.

4.3.3. Relevance of Adult Learning Methods in CHOs Training Programme

Based on the ages of the respondents as presented in Table 3.1, it is apparent that the community health workers in these districts are all adults, at least legally, and deserve to be treated as such during training sessions. A mean score of 4.8 was rated for the frequency application adult learning methods during training sessions by all the respondents. This confirms that the application of adult learning approach, which recognize trainees as adult, is associated with CHOs training programmes. Through observations at training sessions, it was discovered that principles of Andragogy were applied at CHOs training sessions. Thus, facilitator-trainee relationship, the delivery methods and sitting arrangements significantly demonstrated that adult education principles were largely adopted during training sessions. It was apparent trainees were considered as colleagues by their facilitators, who actually handled their sessions showing sufficient respect and concern for the trainees.

Observation made during training sessions also revealed the training methods were devoid of teacher-centred delivery modes. Delivery methods such as discussions, case studies, role plays and individuals and group assignments were adopted which ensured massive engagement and participation of all trainees in training activities. There were intermittent activities such as singing and aerobic exercises to prevent boredom and to make lessons lively. It was also observed that training activities such as readings, questioning and answers were often done in turns as a way of involving all trainees. The conference halls at the DHMT in each of the three districts is usually the venue for the training. Sitting

arrangement usually adopted was in a horse-shoe form which is conducive for adult learning.

One intriguing situation worth noting is roles given trainees at training sessions. One of these roles has got to do with assigning a group of trainees (usually two) as rapporteurs for each day who document all the activities that have taken place and report on it as the first activity on the following day as a recap. Inputs are made into the daily reports by both trainees and facilitators. The presentations served as a form of revision for the modules and also a way of getting knowledge acquired imprinted, especially for the slow learners.

From qualitative data source, it was evident management of the training programme also consented to the fact that the CHOs training programme adopts adult learning practices. They cited issues such as flexible timetable to meet trainees' needs; the types of learning methods adopted such as group work, songs, storytelling, role-plays, case studies, group presentations, and respecting the views of trainees and involving them in decision making as strong indicators for observation adult learning principles for the training programme. This is how some of the facilitators put it:

> *"Facilitators ensure that participants are not taken through more topics or sessions than what they can absorb for the day. They also ensure that there are short breaks in between sessions …",* (CC, DWD).

> *"… CHO s are encouraged that no answer was wrong. They were allowed to express themselves in languages they feel comfortable with …",* (Facilitator, GED).

Table 4. 5: Respondents' assessment of the relevance of application of methods learning methods at training sessions

Training Methods	Mean score for frequency of adoption of methods during training sessions (n = 108)	Mean score for the relevance of application of adult learning methods during sessions (n = 108)
Application of Adult Learning Methods	4.8	4.7

In assessing the relevance of the application of adult learning methods during CHOs training programmes, all respondents rated it with a mean score of 4.7. This result is significant in community health training programme such as that of the CHOs in ensuring full participation in the training by all trainees, and hence, attainment of training output. Table 4.5 above depicts this result.

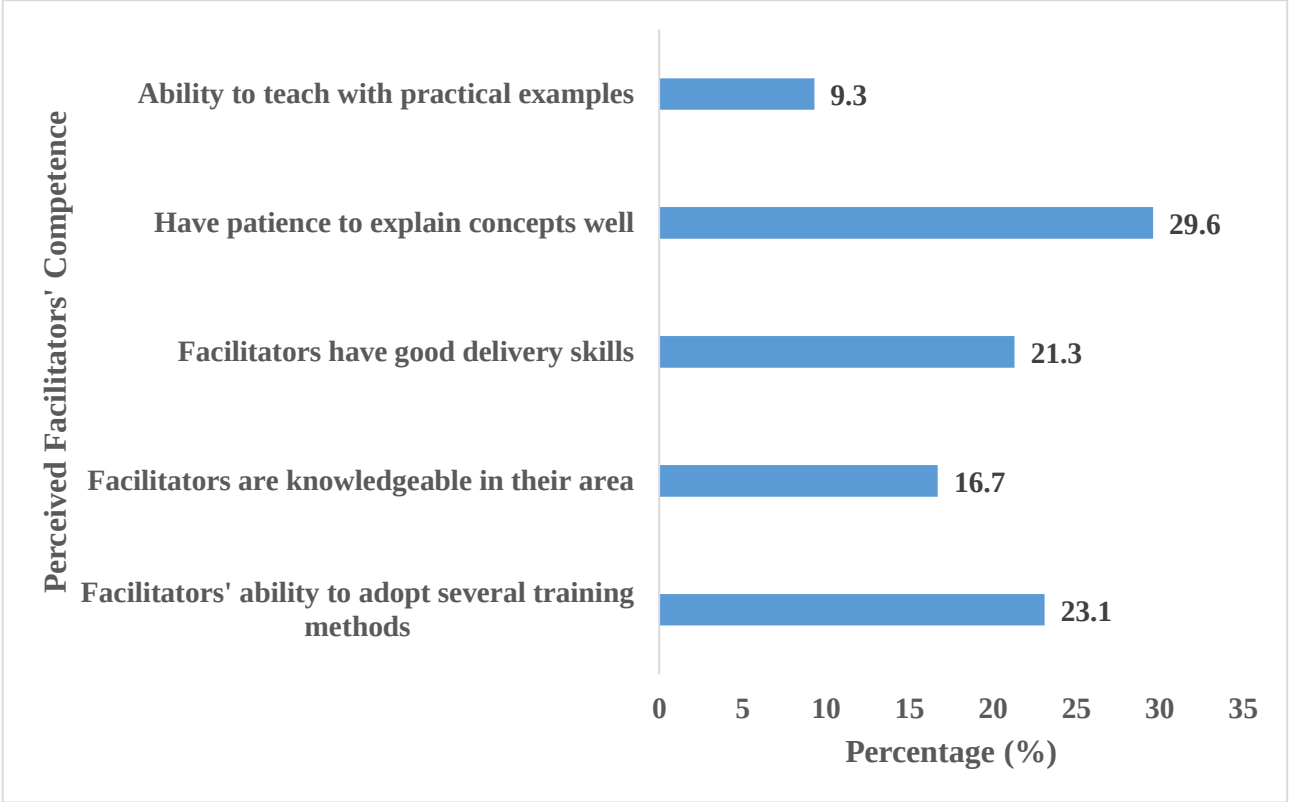
4.3.4 Assessment of Competence of Facilitators on the CHOs Training Programme

Again, the ability to provide interactive and trainee-centred approach during training largely depends on the facilitators' agility in facilitation of training programme. The study therefore attempted to assess the level of facilitators' competence in their facilitation process and also inquire the measures put in place to ensure that they are familiar with the appropriate learning methods in their facilitating engagement. The result shows that the facilitators were rated with a mean score of 4.4 by the trainees in terms of former's competence in their facilitation engagement during training sessions. Possessing such competence has the tendency to ensuring realisation of training output, all other things being equal.

4.3.5 Perceived Evidence for Facilitators Competence

The study also attempted to identify the basis for the facilitators' competence, if any. The CHOs cited at least five reasons why they perceived the facilitators to be competent.

Figure 4. 3: Perceived evidence for Facilitators' Competence



Thus, majority 32 (29.6%) of CHOs explained that the facilitators were competent because they were patient and actually took their time to explain contents of modules to them very well. Twenty five (23.1%) of CHOs also explained that the facilitators were competent because of their ability to deilver well as shown in Figure 4.3.

In assessing how trainers or facilitators get themselves familiar or acquainted with the appropriate learning methods in their facilitation engagement, it was gathered that most of

them were familiar with the training methods to deliver the training content. This is how some of the key informant noted it:

> *"The methods are familiar because they are not new to public health nurses and community health nurses. They are methods often used at the Child Welfare Clinic (CWC) and during school health programmes".* (CC, GWD)

> *"... The facilitators are familiar with their methods because they are experienced people both academically and practically ...".* (Felicitator, GED).

> *"Most of the facilitators are either trained as trainers or have been supporting in the training for a long time and so are familiar with these methods"...,* (Felicitator SOD).

There have been measures by management to get facilitators familiarized themselves with the training methods and issues on CHPS initiative for improved facilitation on the training programme. For instance, in 2010 the Greater Accra Regional Health Directorate organized a training of trainers workshop for CHPS coordinators and facilitators at Dodowa in the then Dangme West District to upgrade their knowledge and skills of the trainers in some of these training methods. The use of the training manual also suggests training methods that could be adopted for specific topics. The following are some of the responses indicating how facilitators of the training programme get themselves equipped for their facilitation engagement:

> *"Trainers/facilitators attend workshops, training to upgrade themselves and to enable them handle their modules professionally. ...",* (CC, GED).

> *"Trainers are informed with notification letter on dates for training, do they prepare ahead of time and go through their slides ...",* (Facilitator, GWD).

> *"... Review meeting are mostly held after each training to assess performance of the facilitators as well as assessment of the training programme as a whole,* (DDH, DWD).

4.4 Assessment of Adequacy of Training Resources

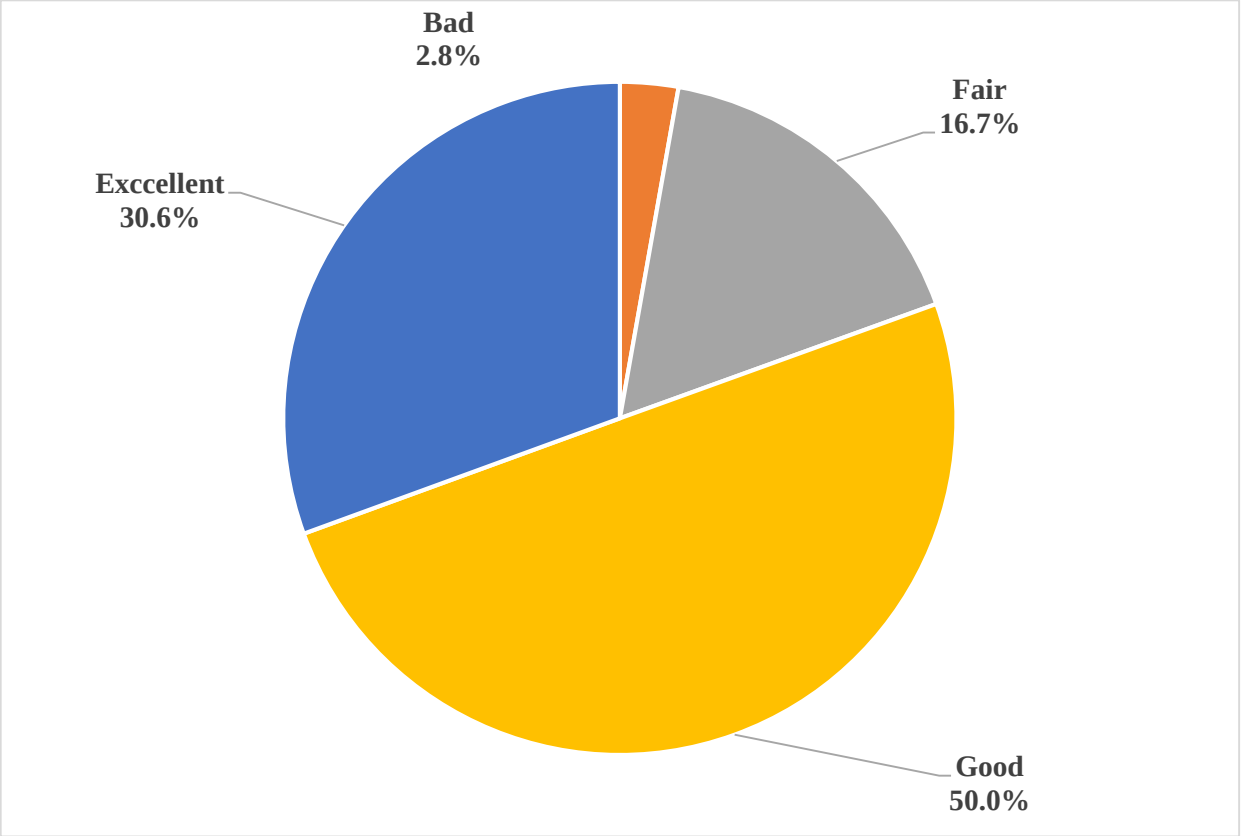
Information gathered from the management of the CHOs training programme identified human resources; training materials (manuals, hand-outs, reference books example home visit registers, etc); equipment (LCD projector, laptop); accommodation, funds, food, stationery (flip chat, notepads, etc); facilities (training venue and field sites) in the district, among others, as the various resources employed for the training programme. The human resource consists of those who plan and manage the training programme such as the District Training Coordinator; the District CHPS Coordinator, Trainers/Facilitator and other officials of the District Health Directorate. Trainees were provided with accommodation for the period of the training. They were also fed throughout the training period. The initial training is usually off-site training and the District Health Directorate's meeting rooms often serve as the training venue. The funds (budget) for the training are borne by the respective District Health Directorates. Transportation was available to convey trainees for field visits and run other errands.

The training team assist in planning and preparations for the CHOs Training programme in their district. It came out from the in-depth interviews that they undertake activities such as selection of new CHNs, preparation of budget and logistics, manpower needs analysis, timetable for the training, writing invitation letters for training, and sensitization of opinion leaders and community members. They described these human resource activities as effective due to its collaborative nature with the stakeholders involved. That is, the DHMT

members and heads of SDHMT as well as the community. The following quotations from the key informants express this response:

> *"The district director together with the DHMT members plan the training and the CHPS coordinator who is in charge of the training budget for the programme, cover all the resources needed to ensure that every item needed for the programme is available in the right quantity:*, (CC, DWD).
>
> *"The funds usually spells out the number of participants that could be trained and it is usually between 10 – 15 people. This number is just too small*, (DTC, GWD).

Figure 4. 4: **CHOs' Assessment of Adequacy of training Resources**



Thus, the key informants consented that resources allocation in general was sufficient to meet training requirements. This revelation was consistent with the findings from the perspectives of majority of the CHOs, amongst whom 50% indicating resource allocation

to be good, with 30.0% stating it was excellent, 17.0% mentioned it was fair and only 3.0% reported it was bad as shown in Figure 4.4.

However, as an observer at one of the training sessions I discovered that trainees did not have access to training manuals and other learning materials such as presentations hand-outs, but solely depended on the facilitators' presentations from the overhead projector

4.5 Assessment of Linkage between CHOs Training and Post-Training Performance

4.5.1 Benefits of CHOs Training Programme to Post-training Performance

The purpose and essence of In-Service Training (IST) policy of the GHS is to contribute to the achievement of the goals of the health sector through improved performance of staff in health care delivery at all levels. In this regard, the enormity of CHOs' role requires the rolling out of comprehensive training programmes that can equip them with the necessary mix skills to provide better health promotional and preventive services. The CHOs training programme has therefore been designed to equip CHOs with the relevant skills, knowledge and attitudes to deliver on their mandate.

Table 4. 6: **Benefits of the CHOs training package to Post-Training Performance**

Type of IST	**Mean Score (n = 108)**
Structured In-service Training	4.4
Remedial or Ad-hoc Training	4.2
Induction and Orientation	4.3

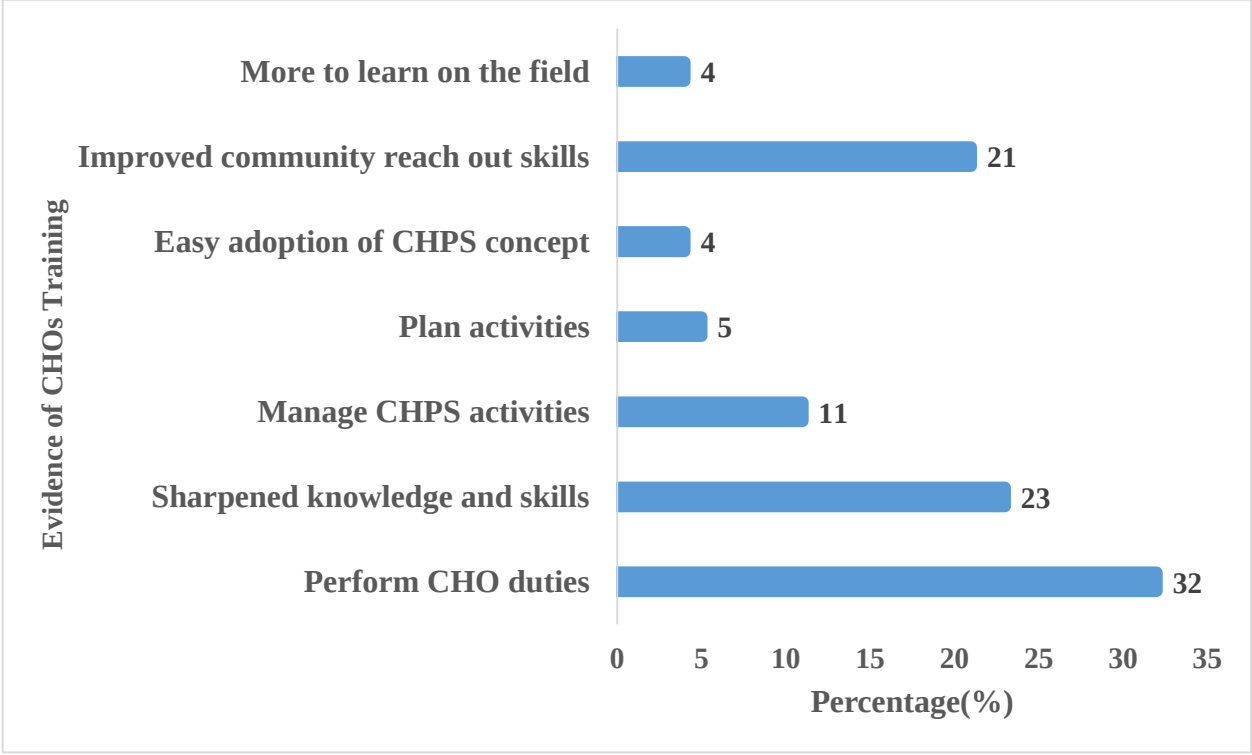
In responding whether the training programmes have been able to equip the CHOs with the requisite competences, majority 100 (92.6%) affirmed this position. However, 8 (7.4%) were of the view that the training could not equip them with the requisite skills. In addition to enquiring from the CHOs whether the training was able to equip them with the necessary skills to perform their roles, they were also asked to access the benefits of the entire CHOs training package with regard to how it is impacting on their post training performance. Table 4.6 below shows that the structured in-service training, remedial/ad-hoc training and induction/orientation had a mean score of 4.4, 4.2 and 4.3 respectively. This means that the training is beneficial to equipping CHOs to perform tasks.

From qualitative point of view on the linkage of the CHOs training to performance, the management of the training programme had this to say:

> *"The training enables them to assess their clients well and identify any abnormality and refer them appropriately to the next level …"*, (Facilitator, GWD).
>
> *"Most of the CHOs are hardworking. They do daily consultation and give talk at the facilities as well as Home Visits, which is an important aspect of their work. A few of them do not go on home visits as expected of them"*, (DDH, DWD).
>
> *"The CHOs seem to understand the CHPS concept and this is emanating from this month's report, which is full of success stories of the initiative or programme. We made a follow up and it was revealed that the community members were embracing the presence of CHOs in their community"*, (DTC, GWD).
>
> *"… They take responsibility and ownership of the CHPS programme. That is, there many indications that they are benefiting immensely from the training. …"*, (CC, GED).

4.5.2 Evidence of the impact of CHOs Training on Post-Training Performance

Figure 4. 5: Evidence of the impact of CHOs training on Post-Training Performance



The results show that out of the 100 CHOs who indicated from above that the training programme impacts on them positively, 32% of them indicated the CHOs training programme equipped them with the requisite skills in performing their duties as CHOs; 23% stated that it equipped them in sharpening their knowledge and skills; 21% responded that it equipped them in improving their community reach out skills; while 4% indicated that the training aided them in the easy adoption of CHPS concept and also equipped them in learning more on the field. The figures are depicted in Figure 4.5.

The study further assessed measures put in place to evaluate post training performance through qualitative methods from the key informants. According to the key informants, those responsible for evaluating post training performance include DDHS, CHPS

Coordinators, SDHMT Supervisors/members/coordinators, and DHMT members such as Public Health Nurses (PHNs). Accordingly, there are procedures laid down to monitor and evaluate acquisition of competences and skills after CHOs training sessions. The DHMT/SDHMT has designed registers to help monitor the activities of CHOs periodically while they are at their permanent post. Thus, the CHOs log in their daily activities. One key informant expressed it as follows:

> *"The district has designed a book/registers where CHOs are supposed to log every activities performed with dates. DHMT/SDHMT visit the facilities to check the books during support visits"* (CC, DWD).

However, another key informant who had a contrary view, doubted the existence of laid down procedure for monitoring performance in her district, which she expressed as follows:

> *"There is no laid down procedures per se for monitoring the performance, but reports on performance of the CHOs provide avenue for us to identify any performance gaps. For instance, submission of summary register for home visiting by the CHOs can tell whether they are doing their work well or not"*, (Facilitator, GWD).

The DHMT/SDHMT provides facilitative/supportive supervision visits to the CHPS compounds. These visits could be monthly, quarterly and even randomly. During such visits, supervisors usually do reconciliation of submitted reports to the DHMT by CHOs with registers at CHPS compounds (i.e. validation of monthly submitted reports). The CHPS coordinators also pay regular visits to the CHOs at the zones. Those who provide oversight responsibility to CHOs include DDHS, CHPS Coordinators, SDHMT Supervisors/members/coordinators, and DHMT members such as PHNs.

To ensure efficiency and effectiveness by the monitoring team, there exists roadmap for routine visits, which the CHPS Coordinators oversee. According to the management, there are often reports that capture post-training performance by supervisors and are submitted to the DHMT. The submitted reports on CHOs activities are analysed at the DHMTs and when performance gaps detected, corrective actions were then taken. Management of the training programme generally confirmed the existence of post training reports though one key informant indicated that she was not aware of such reports in her district. There was general consensus that the various activities reports produced by CHOs in the pursuit of their duties in the community actually reveal their performance or otherwise. These measures to monitor post training performance were described as effective, although one key informant thought it was not effective at certain times. These are the views of some of the key informants:

> *"Itineraries are in place for the monitoring team with copies at the various facilities. The CHPS coordinator is in charge to remind members. Team members are given lunch during monitoring to motivate them"*, (Felicitator, DWD).

> *"Checklist is used for the monitoring and sometimes the regional coordinator joins the district CHPS coordinator"*, (Felicitator, GWD).

4.6 Challenges of CHOs Training Programme

Figure 4 6 Challenges during training programme

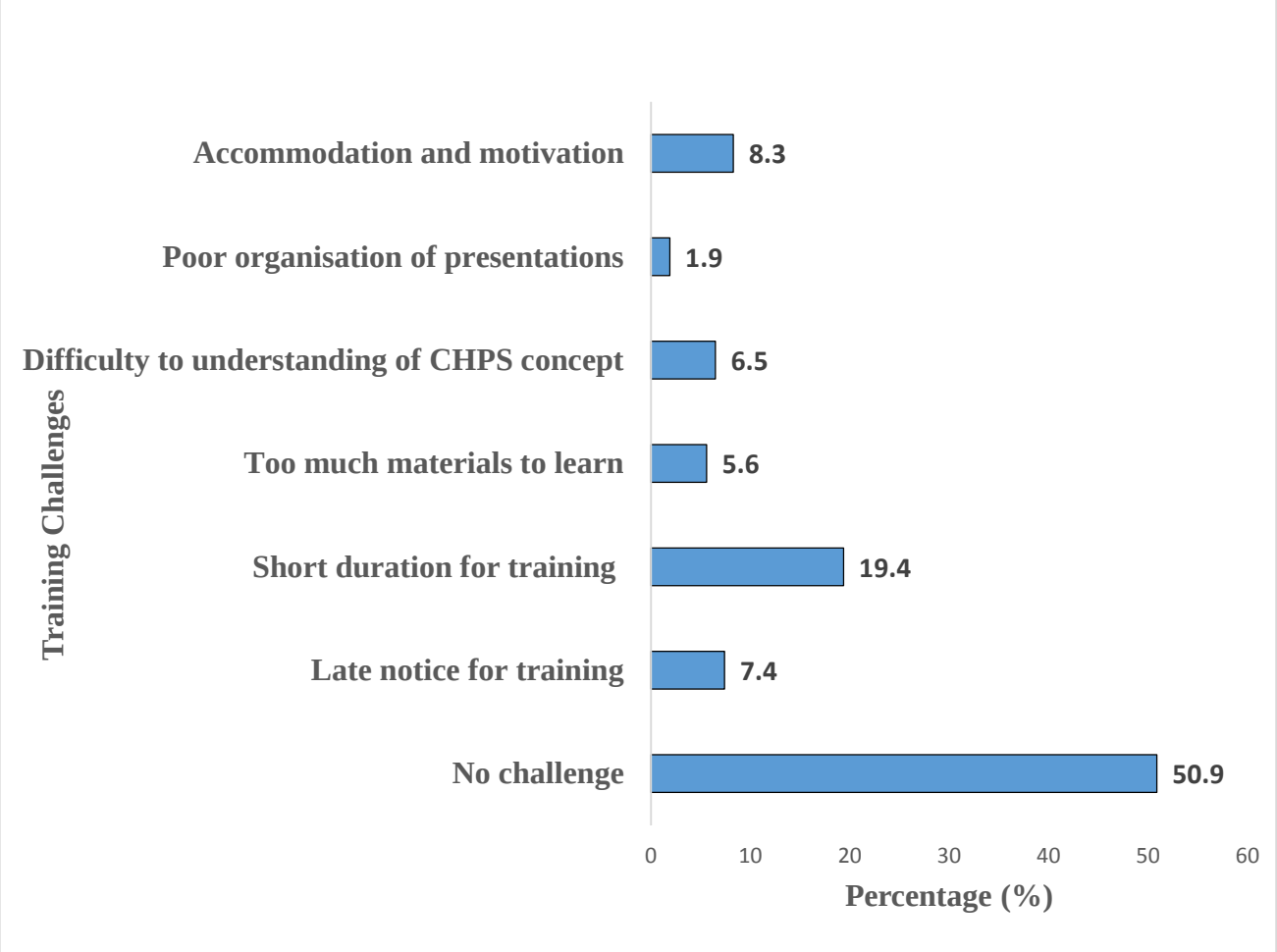


Figure 4.6 shows the challenges that trainees encountered during training sessions which can invariably effect attainment of the training objective. Majority 55 (50.9%) reported they did not have any challenges during training sessions. About 50%, thus 53 of CHOs however indicated the training porgramme was beset with some challenges. Twenty one (19.4%) of the respondents felt the duration for training is short, 9 (8.3) felt they had accommodation challenge during training period; 8 (7.4%) stated that the challenge they have has got to do with late notification for training; 7 (6.5%) believed their challenge has been the difficulty in understanding of CHPS concept; 6 (5.6%) thought the challenge they

have was system overload - too much materials to learn within limited time; whilst 2 (1.9%) were of the view that poor organization of presentations was their challenge. This findings raises serious implications for the organisation of adult learning programmes.

From the qualitative data source, the respondents mentioned the following as challenges encountered on the CHOs training proramme:

> *"… Limited funding for few people to be trained. The funding is always an issue we have to contend with.…",* (Facilitator, GED).

> *"Some CHNs are not interested in the training because they think they will be posted to the rural areas or villages to work after the training*" …, (Facilitator, DWD).

> *"… Lack of motivation for CHOs, lack of accommodation, and poor community members' participation. After community outreach, where they will sit to rest is even an issue*" …, (Facilitator, GWD).

CHAPTER FIVE

DISCUSSION OF RESULTS

5.1 Introduction

This chapter presents the discussion of the results of the study in relation to the research objectives. The focus of this study was to assess the effectiveness of the CHOs training programmes in relation to the training outcomes in the Dangme West, Ga East and Ga West districts of the Greater Accra Region of Ghana.

Accordingly, the following research questions were considered relevant for the discussion:

1. To what extent are the contents of the CHOs training programme achieving the output?
2. How effective are the use of the training methods in achieving training output?
3. How adequate are the training resources in ensuring the realisation of training objectives
4. To what extent is the CHO training impacting on performance for the trainees?
5. What are the challenges facing trainees or co-ordinators of the CHOs training programmes?

5.2 Relevance of the Contents of CHOs Training Programme

The first research question of the study examined the relevance of the content of the CHOs training programme. Specifically, this section looks at the training content, relevance of the content, and the training manual or materials.

5.2.1 Assessment of the Relevance of the Training Content to CHOs' Job Roles

From the result, there was massive affirmation of the relevance of the content of the CHOs training programme to equipping trainees with the requisite skills, knowledge and attitude to manage CHPS zones as a frontline health service provider. Essentially, the least ratings (mean scores) range from 4.4 for *Managing Drugs and Supplies* module to 4.9 for *Family Planning* and *Report Writing* modules respectively. This finding is significant. Since the CHPS initiative started as a pilot project at the Navrongo Health Research Centre (NHRC), and proved effective, it later became a nation-wide programme. Lessons learnt from the initiative and support received from many organizations such as JICA and CHPS-TA have led to the production of good training materials. This shows for how beneficial the training is for the CHOs in particular, and CHPS initiative in general. This outcome could also be attributed to the comprehensiveness of the planning for SIST, which management of the training described as effective. In effect, it could be inferred from this significant results that the organisers of the training programme are mindful of the elements of instructional training design with particular focus on transfer of learning in the training design and implementation.

Transfer of training, which is the effective and continued application of knowledge and skills gained in training by trainees to their job (Broad & Newstrom, 1992 as cited in Buckley & Jim Caple, 2009), has a high propensity to ensure post training performance (Subedi, 2004). This phenomenon is important for a training programme to be considered as relevant and effective to achieving its objectives. This is because it is believed that perceived value or utility of training can be influenced by trainees' evaluation of (1) the credibility of the new skills for improving performance, (2) a recognized need to improve their job performance, (3) a belief that applying new learning will improve performance,

and (4) the practicality of the new skills for ease of transfer (Yelon, Sheppard, Sleight, & Ford, 2004). Aligning these factors to the CHOs training programme, it could be asserted that indeed, trainees would consider the training credible to impart new skills for improving their performance. Thus, it can be concluded that trainees' pre-training or attachment experience can enhance their perceived value for the CHOs training. Consequently, the possibility of the trainees recognizing need to improve their job performance is high because the training is conducted in a manner that explicitly demands such responsibility of them. For instance, taking trainees through the Managing CHO Activities and Professional Adjustment modules alone throw such challenge to them. Again, the exposure of trainees to practical work on the training programme also provide them with confidence that they can actually apply and transfer the new skills to the job situation quite correctly.

Another reason for the high rating of the CHOs training programme is its design. This is because the design of the training programme has been found to exert a significant influence on learning and in relation to transfer. Theories of identical elements, stimulus generalization, and cognitive load suggest that training must be designed in a manner conducive to trainee needs and expectations. That is, trainees are more likely to apply their training knowledge when the learning content and materials are similar to those used in the work setting (Yamnill & McLean, 2005). Burke and Hutchins (2007) identify four categories of transfer influences such as learner characteristics, training design, work environment, and trainer characteristics that training participants perceived as being a best practice in supporting transfer in their organization. Consequently, the CHOs training programme would identify with these transfer influences and impacts on the relevance and effectiveness of the training programme.

5.2.2 Topics of the CHOs Training Contents

The individual topic of the CHOs training content was designed to specifically provide CHOs with the competencies that will address roles expected of them as frontline health providers in the community. These topics or modules which have been categorised into four broad areas namely curative, preventive, promotive and management, are successfully imparted to trainees who see the need to apply them in accordance with their role. The curative category comprises of modules such as *Managing Common Ailments and Emergencies in Home and Community* and *Safe emergency Delivery* which is more clinical aspect of health care. The preventive category also comprises modules such as *Disease Surveillance and Control* and *Immunization* which are supposed to be embarked upon to curb occurrence of diseases. The promotive category include modules such as *Behaviour Change Communication* and *Promoting Good Nutrition in Individuals and Community* which equips CHOs with the knowledge and skills to empower the community members to adopt healthy behavioural attitudes about their health issues. The management category consists of module such as *Managing CHO Activities* and *Managing Drugs and Supplies* which also provides CHOs with the requisite knowledge and skills to manage the CHPS compound effectively. Indeed, the job of the CHO really requires round-the-clock commitment to respond to needs of the community and a continuous effort to build and maintain community awareness about health issues (Capacity Project/USAID, 2006). Thus, the training modules become very relevant to quipping the CHOs to perform the exact roles expected of them.

As much as the content of these training modules can equip the trainees with these skills mix, especially when there is also emphasis on practical work, there seems to be too much to grab within the stipulated training period. That is, trainees are expected to gain

competencies not only in management of clinical aspect of health, but also as a change agents in health who are to help their respective communities to plan their health needs and empower them to take informed decisions about their health. This revelation has serious implications for adult learning principles, which among other things, requires providing trainees with elaborative and integrated training in Community Mobilization and Community Participation as well as Communication and Communicating Health which will equip trainees with the competencies as adult educators. Training participants should rather be involved in all stages of their learning experience so that they can purposeful explore on particular knowledge or skills, or reflect on shared experiences (Brookfield, 1998). Thus, being guided by adult learning principles, organisers of the training programme can think of involving participants in formulating the learning goals. Another solution is to extend the period for the training programme so that there will be adequate time to consolidate CHOs competencies in both clinical and non-clinical skills to perform their roles. However, this may have financial implications. The curriculum of the pre-training programme could also be reviewed to ensure that CHNs are provided with most of the competencies required of them as CHOs.

Although there are differences in the focus of the CHOs training content compared with other community health programmes, it largely adheres to the WHO criteria, which advocate that the main content of the initial training for CHW should involve a wide range of health care activities, rather than solely within a programme that focuses on one disease or health problem (WHO, 1987, as cited in Lehmann & Sanders, 2007). There is also much similarity between the CHOs training content with other CHWs programmes such as the Experience of Community Health Workers Training in Iran, which has the training content focusing on disease prevention, health promotion and health education as the principles of PHC approach, and a shift towards a social determinants approach in training as a response

to the current international and national health agendas (Javanparast et al, 2012). According to Javanparast et al (2012), training content should include topics such as the health system and rural community, communication skills, social sectors in rural areas and intersectoral collaboration, and social determinants of health and well-being, which the CHPS initiative also aspires.

5.2.3 Duration of CHOs Training Programme

The results indicate that on the duration for the structured in-service training (i.e. initial training) is two weeks (precisely 10 days) but sometimes is reduced to a week if there are to financial constraints. This two week duration for such a comprehensive training programme has been described as woefully inadequate for delivering of all the modules. This has implication for adult education practice as it calls for developing of flexible training design at trainees' pace. Maehl (2004) advocate for flexibility in time, place, mode, and pacing to accommodate changing circumstances to suit the adult learner. However, the pre-training programme for the trainees (CHNs) in community health has contributed immensely to the transfer of learning in spite of the huge volume of material that has to be imbibed. Nonetheless, this could account for the reason some trainees cited heavy workload as a challenge on the programme. This situation often impedes full assimilation of the training content. Again, this challenge has an implication for adult education practice. That is, organisers of the training should consider providing opportunity for the trainees to play a role in the design, direction, and implementation of learning experience and in so doing, a flexible intervention could be agreed on. In addition, only content required for immediate application on the job should be incorporated in the training as a way of reducing the heavy workload. In recent times, the concept of the CHPS initiative has been added to the curriculum of CHNTS. This offers CHNs to acquaint themselves with CHPS concept

during their pre-training. In this regard, there can be sequential transfer where the new CHOs training will benefit from pre-training of the CHNs Keiler (2007 as cited in Cameron et al, 2011). All these arrangements enhance the CHN's readiness for the CHOs training to ensure training transfer and hence the value attached to the training by the respondents.

5.2.4 Training Manuals for CHOs Training Programme

The availability of training manual (both in hard and soft copies) to serve as a guide for the CHOs training programme is laudable. This ensures consistency in the training programme as less variability will exist between subsequent cohorts and across districts. This means that, all things being equal (i.e. holding all training situations constant), there would be standardization in the training process. This will also impact on the standardized performance expected of CHOs. The availability of these materials, especially the workbooks, facilitates training session to make use of scarce time. This means that trainees will be spared using precious time to copy questions including lengthy case studies. From the result, although appreciable number of the respondents indicated they have access to some of the training materials during training sessions, it is equally important that training modules and other materials are made readily available to trainees, which should become their personal copy after the training. In this case, the availability of the training materials during training will facilitate the training sessions, while possession of personal copies after the training would serve as reference materials for their practice. Essentially, with the interest shown in the CHPS initiative and support received from both government and non-governmental agencies, production of CHPS training materials should be a priority.

It should be stressed, however that, the modules are not intended to constitute a textbook for the training. Essentially, their contents are not intended as memory joggers for those trained to train others. Fortunately, the CHPS initiative can boast of a comprehensive

training materials which has been developed through shared experience over the years not for only CHOs, but other groups such Community Health Volunteers (CHVs), who serve as the link between the community and the health care system. In the quest to scaling up the CHPs zones in Ghana, the Human Resources Development Divisions of the health sector could adapt these modules as distance learning resources and run a distance learning programme to increase the number of the CHOs. However, this cannot be said of most CHW programmes. For in instance, in the Health Extension Worker training programme in Ethiopia, it was reported that the curriculum and teaching materials have been developed on the basis of limited experience from the pilot projects carried out in one region and inputs from similar programs carried out in other countries (MOE, 2003).

5.3 Assessment of the Training Methods of CHOs Training Programme

This section discusses the second research question of the study which examines the effectiveness of the training methods adopted for the CHOs training programme. It first looks at the types of training methods, the effectiveness, as well as frequency of their adoption during training sessions, which is followed by the relevance of attachment and field visits as component of training methods. The assessment of the facilitators' competence in their attempt to adopt these methods is also discussed as well as that of the relevance of the application of adult learning methods on the training programme.

5.3.1 Assessment of the Effectiveness of the Training Methods

The results of the study show that the training methods predominantly adopted during CHOs training sessions include lectures, group work, individual assignments, case study, role play, plenary presentations and fieldwork. These training methods constituted traditional methods as their usage are not usually accompanied by technology such as the

use of the internet (Carnevale, 2005). From the results, it can be inferred that most of these training methods, if not all, were employed to deliver training content to each cohort of trainees during training sessions. This means that multiple training methods were employed to deliver the training content at these training sessions. According to Bluestone (2013), the use of multiple techniques that allow for interaction to enable learners to process and apply information. He identifies case-based learning, clinical simulations, practice and feedback as effective educational techniques, while didactic techniques that involve passive instruction, such as reading or lecture, as having little or no impact on learning outcomes. Thus, effective techniques have been identified as those approaches that lead to improvements in knowledge and skill outcomes and clinical practice behaviours. The Human Resource Development Division of the Ghana Health Service could encourage facilitators to adopt such multiple techniques in training for all the other cadre of health professionals to ensure good training outcome. However, it is worthwhile to note that lecture, which falls under the low impact methods, was the least frequently used among the methods during training sessions. Interestingly, the more interactive delivery modes such as plenary presentations, group work, role plays, and case studies were frequently adopted and this could account for high rating of the training for its relevance and effectiveness by trainees and CHPS management alike. These delivery modes are adult learning approach inclined and they have high tendency to ensuring transfer of learning, which impacts on post training performance.

These delivery modes for the training content were also rated very high with regards to their effectiveness, ranging from 4.5 for lecture to 4.8 for group work and case study by the CHOs. This rating can be substantiated by the fact that the facilitators of the training programme have been described as highly competent and experienced in their facilitation

roles. Over 90% of the respondents indicated that the facilitators were either very competent or competent. This is worth noting because the trainer is considered an important element in a training situation. That is, a trainer who is conversant with the training methods is very likely to be enthusiastic, and will be in a better position to articulate his or her message to evoke the greatest response from the trainees. The facilitation experience of the facilitators on the training programme was said to have been accrued to them through training of trainers workshops organised for them and continuous facilitation as resource persons in other training programmes in their respective districts.

Feedback, which is the process of providing information to the learner about performance, is one method that is extensively used in the CHOs training programme. Herbert et al (2004 as cited in Bluestone, 2013) mention feedback as key for effective skill development. It is important to note that trainee rapporteurs' reports, which detailed activities of the previous day of training, is characterised by receiving adequate feedback. Interestingly, most of these training methods adopted in the CHOs training programme mimic adult learning approach, especially, as they are interactive in nature. Hence, all these could account for why the training methods were found to be effective to delivering on their mandate in equipping trainees with the requisite competence.

5.3.2 Relevance of Attachment and Field Visits as Component of CHOs Training Methods

The study found that the internship component of the training programme whereby prospective CHNs are attached to CHPS compounds to acquaint themselves with the activities of the CHOs remarkable, especially when more than half of the respondents have had that experience. Such an arrangement gives the prospective CHOs the opportunity to learn on the job to acquire the basic knowledge and skills of the CHPS concept and

operations before their selection for the structured in-service training. Also, the arrangement is relevant because it gives the CHN a feel of the CHOs role which makes the structured in-service training more meaningful to her. This arrangement could improve trainees' readiness for training, which will eventually shape their personal characteristics such as ability and motivation for the CHOs training. This particular attachment is peculiar to the Dangme West district, which is often referred to as the model district for the implementation of CHPS initiative in the Greater Accra region, but not quite common to most community health workers across the globe. The experiences acquired during the attachment invariably impact on the performance of the CHOs. This attachment is distinguished from the field visit which is a component is SIST. Interestingly, the impact of attachment on trainees is enormous as it help CHOs to acquire competencies such as skills to perform role as CHO and the ability to manage a CHPS zone.

The study also found that the occasional field visits by the CHOs expose and provide trainees with practical skills mainly through observation at designated facilities such hospitals, CHPS compounds and the community. This usually complements and/or substitutes for the above attachment. However, there is evidence of the relevance of on-the-job training for many CHW programmes. Practical training of community health work programmes is often an issue. In describing the Health Extension Workers Programme, Kitaw et al (2007) indicate how it lacked of practical training as it was too theoretical.

The field visits form part of structured in-service training and a maximum of two days is devoted for that. The results of the study show that respondents rating for the frequency adopting field visits during training sessions was very high (4.3). This means that almost all the trainees had a feel of the field visits experience. With regards to the effectiveness of field visits to ensuring acquisition of practical skills for CHO role, the trainees rated a very

high mean score of 4.6. In this case, it can be inferred the CHOs training programme has the tendency to create positive impact. Thus, in instances where there are emphases on both theoretical and practical sessions, the outcome is said to be always positive. Javanparast et al, (2012) reported on how national CHW training programme in Iran created positive impact on trainees as a result placing emphasis on theoretical and practical knowledge and skills, and clinical placements in Health Houses and Rural Health Centres. Consequently, such attachments and field visits are crucial in gaining work experience through on-the-job training and helping trainees to adapt themselves to their future work environment.

5.4.2 Relevance of the Application of Adult Learning Methods in CHOs Training Programmes

The study reveals that CHOs training highly employs Andragogy, the theory and practice of educating adults, which recognizes trainees as adults. The least age recorded among the respondents is 23 years. This means that, legally, all the respondents are adults according to the laws of Ghana. From the results, the respondents highly rated (4.4) the frequency adopting adult learning approach on the training programme. The finding is fascinating as attention on incorporating adult learning approaches in designing of training programme for health professionals is being advocated. Adult learning is considered state of the art for professional health education, including emergency medical services and out-of-hospital care, which requires critical thinking, integration of facts, and an opportunity for review and self-evaluation are considered important (Department of Transportation, 2000 as cited in De Lorenzo & Abbott, 2004). As Kolb (1984 as cited in Noe, 2008) notes, the adult learner's interests are embedded in their personal histories, in their vision of who they are in the world and what they can do and want to do. For adults, learning methods that combine work and study, theory and practice provide a more familiar and therefore more productive

arena for learning (Kolb, 1984). Thus, the adoption of adult learning approach on the CHOs training programme is worthwhile. Perhaps this was the reason the respondents highly rated (4.6) the relevance of the application of adult learning approach in the training programme for enhancing attainment of the training objectives.

The application of adult learning theory to CHOs training programmes has the capacity to ensure tapping of trainees' experience as basis for examples and applications; and developing instruction based on their interest and competences (Knowles, 1990). By taking cognizance of adult learning practice, trainers and training organisers will therefore be guided to apply the principle of immediacy to content, which employ trainees to apply skills acquired immediately after training. This will also ensure designing problem-centered training in lieu of subject-centered one. The learning methods adopted by facilitators and the cordial relationship that existed between trainers and trainees created a congenial learning environment resulting in good transfer of knowledge. The environment of the training centres was friendly, coupled with highly competent trainers were particularly cited by most participants as factors that made the training sessions an exciting period of their life and career, and this ultimately had positive impact on the learning process and motivation.

5.4 Assessment of Adequacy of Training Resources

This section discusses research question three, which focuses on adequacy of training resources in realisation of training objectives. Concerning the issue of resources for the training intervention, the results revealed basic logistical items that were obtained for the implementation of the training. It came out clearly that there were comprehensive planning for each training sessions at the three districts which sometimes involved other stakeholders. Budget is also allocated for each training. It also emerged that these resources

were sufficient to organize a modest training for about 10 to 15 trainees at each session. As indicated earlier, the resources employed in the training programme include Human resource, training materials, equipment, accommodation, funds, food, stationery, and training facilities. The findings accentuate the Training and Learning Standards document, which defines generally accepted practice to ensure the quality of training and learning activities. In a checklist and tool for developing and implementing high-quality training and learning interventions, two categories of training resources were identified namely logistical arrangements and learning resources. Logistical arrangements for the learning intervention which are to be made in advance, were identified as accommodation for trainers and/or learners, training venue, practicum sites, meals and breaks, per diem, transportation, technological support, among others. In the case of the learning resources needed to carry out the learning intervention, resources such as printed materials, models, audio-visual equipment, and training packages also needed to be obtained and made available for the training (IntraHealth International, 2012).

Such resources and logistics must be present to ensure effective learning environment. Effective coordination and planning at different levels of health system and the insertion of CHWs programme in the wider health system have been considered crucial in successful training of CHWs (Javanparast et al, 2012). Out of these resources, however, human resources and budgetary allocation for training, can be considered as two most important, as with their availability, the other logistics can easily be organized or procured. It must be stressed however that, the availability of funds determines the number of CHNs that can be trained at a given training sessions, the frequency of training in the districts, as well as the training materials that can be made available during training sessions for the trainees as well as facilitators.

5.5 Assessment of Post Training Performance of CHOs

The fourth research question of the study assesses the extent to which the CHOs training is impacting on post training performance. That is, the linkage between the CHOs training programme and practice of the skills mix acquired.

Ultimately, the import of in-service training in particular and training in general is to improve performance. Its purpose is to enable an individual to acquire abilities in order that he or she can perform adequately in a given task or job, especially in the work situation. In assessing how the CHOs training programme has been able to equip trainees to perform their roles, 92.6% of CHOs affirmed that indeed, the training has imparted them with the requisite knowledge, skills and attitudes to perform their roles as CHOs in community. The three broad areas of the CHOs' roles are health promotion and preventive; curative and rehabilitative health (managing of minor ailments and referrals); and case detection, mobilization and referrals. The result of the study is significant considering the tasks of the CHOs to help achieve the objectives of the CHPS initiative in particular, and the health sector in general. That is, they have a mandate to provide improved service delivery of the above roles especially in remote communities. According Bluestone (2013), in-service training represents a significant financial investment for supporting continued competence of the health care workforce. As such, the entire training design must ensure that the purpose of the CHOs training programme as well as the CHPS initiative is realized.

It is further acknowledged that CHWs operate as any other cadre of health workers because they also require effective recruiting, managing and motivating. As such, their success and sustainability is influenced by a combination of factors which include government support, community participation, an adequate incentive or reward system, supervision and training.

Existing health system structures have impact on the effectiveness of CHW services especially when it comes defining their roles and incentives (Prasad and Muraleedharan, 2008). According Lehmann and Sanders (2007) in a review of the state of community health workers, identify that CHWs performance is frequently dependent on all aspects of management, such as selection, training, supervision and support. All these are present in the case of the CHPS initiative. The findings of the study discovered efforts put in place by management as a way of monitoring post training performance. This include supportive supervision and reviews of CHOs' monthly reports submitted to their respective DHMTs. However, all the arrangements enumerated by Prasad and Muraleedharan (2008) as well as Lehmann and Sanders (2007) above are inherent in the CHOs training programme.

Furthermore, from the results, the identification of at least seven (7) tasks that the CHOs training has imparted on the trainees is a good indication that the training is ensuring transfer of learning. The CHOs cited the impact of the training as performing the CHOs' duties in totality. However, specific functions such as managing and planning CHPS activities, improved community outreach skills, and having acquired knowledge and skills, were remarkable. An effectual training therefore depends on interventions which is multifaceted such as training with supervision. This can address multiple determinants of performance, which is more likely to improve performance than single interventions such as training alone (Rowe et al, 2006). The CHOs training programme is exhibiting these elements. Looking at the nature of the CHOs training in totality, there is no doubt it exhibits the characteristics of transfer of learning, which is evidenced by the opportunity for the trainees to practice new learned skills back on the job (at the CHPS compounds), and the supervisory support and assistance that follow the training (Clardy, 2006 as cited in Blume et al, 2010). The trainees are posted immediately after the training straight into practice as their CHPS zones may be awaiting for them even before the training. Lehmann et al.,

(2004) attribute ineffective CHW programmes to how they are poorly supported in terms of follow-up training and regular supervision. It is therefore important that for management of the CHPS initiative design a good support programme for the CHOs ensure that they receive frequent follow-ups and regular facilitative supervision. This will allow for identification of any performance gap and finding the appropriate solution to remedy the performance gap.

Ultimately, the Ghana Health Service is seen as an organisation that practises high-leverage training, which ensures creation of working conditions that encourage continuous learning through linking strategic organisational goals to objectives, as well as using instructional design process to ensure that training is effective (Carnevale, 2005).

Eventually, assessing the benefits of the entire CHOs training package in relation to its impact on post training performance was a good measure for training output as well as outcome. The rating for the three types of in-service training for CHOs was commendable. The mean score of 4.4 the structured in-service training or the initial training especially, is worthwhile indicating how beneficial the CHOs training programme is to equipping CHOs to acquire the relevant skill mix for their community health work.

5.6 Challenges for CHOs Training Programme

This section addresses the fifth research question, which assesses challenges facing trainees or co-ordinators during CHOs training sessions. The results from the study indicate that about half (50.9%) of the respondents perceived the CHOs training to be beset with some challenges. These challenges can be categorised into administrative and facilitation challenges. For instance, the late notification of the training programme, short duration of

training, lack of training materials, accommodation for trainees, and motivation in general, as well budgetary constraints can be said to be administrative or managerial challenges. On the other hand, system overload - too much materials to learn, difficulty in understanding of CHPS concept, and poor organization of presentations can also be said to be facilitation challenges. Both challenges especially, the administrative ones, need advanced preparations to tackle them. The administrative challenges could be attributed to the economic challenges the country has been facing in recent years. Really, the training programme is mainly borne by government subventions to the districts. However, occasionally, the training is supported by non-governmental or international organisations such JICA and USAID in the respective districts.

With regards to the facilitation challenges, they present implication for adult education. The system overload which borders on too much to learn within a short period, was a problem because most of the CHOs training content (contained in three volumes) ought to be covered within the stipulated period for the training. As such, trainees are overburdened with training stuffs. This situation would even have serious implications for those trainees who had their training within a week due to budgetary constrained. The findings is however not unusual with training programmes. For instance, Javanparast et al, (2012) report that a centrally produced materials, booklets, and step-by-step guidelines adopted in a training was perceived didactic by some participants that constraints adult participatory learning, and problem solving capabilities of the trainees.

The application of adult learning principles, is therefore required in this situation to make teaching and learning flexible. According to van Merrienboer (1997, as cited in Hutchins, 2009) the training content should be presented in a manner that does not overload or

confuse learners with extraneous information. In outlining key features of adult learning, Brookfield (2005) stresses that the teaching-learning process should be based on a continual negotiation of goals, learning methods and evaluation strategies. Brookfield (2005) also adds that the overall learning process should depend on the experiences, skills and knowledge each participant brings, which qualities will affect how new information is intended and absorbed. These key features of adult learning strategies can impact on transfer of learning and hence, performance. With these elements of adult learning, therefore, the challenge that has got to do with the difficulty of understanding CHPS concepts could easily be solved, and to a large extent that of the poor presentation slides. However, for the poor presentation challenge, there is a need for training of trainer workshop to teach facilitators presentation skills. Again, to avoid system overload, part of the modules could be treated during the initial training, and the rest handled as regular remedial or refresher training.

Abbatt (2005) underscores how continuing training programmes for CHWs have received considerable attention, as hitherto CHWs were often selected without any prior experience or professional training in community health. This notion is well captured in the GHS In-Service Policy document which stipulates, the other forms of training that CHOs may receive (GHS, 2005). From the result of the study, 73.0% of the CHOs confirmed receiving remedial or refresher training in the course of their profession. This is commendable because refresher courses help CHOs to upgrade knowledge and skills with respect to their job. The finding suggests that health profession in Ghana is a learning organization. This assertion supports Abbatt (2005) call for investment in initial and continuing education of CHW health. In a similar assessment of initial training programme for Health Extension Workers, Kitaw et al (2007) stress how continuing education is critical to the success of

Health Extension Programme in Ethiopia. Such continuing education such as refresher training when organised on a regular basis, tends to affect skills and knowledge acquired by training, which may be lost quickly.

This chapter has discussed the result of the study. It analyses the issues in the context of assessment of the effectiveness of the CHOs training programme and its impacts on post training performance. The next chapter represents summary, conclusions and recommendations.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter summarises the main issues raised as well as the findings of the study. It draws conclusions from the study and makes suggestions and recommendations for the need to ensuring that training programmes are well designed to achieve their deserved outcomes. The implications of the study for adoption of theories and practices of adult learning to training programmes are also presented. Finally, suggested areas for future research are presented.

6.2 Summary

The purpose of the study was to assess the effectiveness of the CHOs training programmes in relation to training outputs in three selected districts in the Greater Accra Region. The study began by establishing the background within the context of community health work including the concept of CHPS initiative. Considering the nature of the objectives, both primary data (quantitative and qualitative methods) and secondary data (retrospective training reports and other related training documents), were used to generate data and analysis. The study therefore adopted descriptive analysis of data.

Objectives of the Study

The study was carried out with the following set of objectives as the guiding tools. The objectives of the study therefore were:

1. To determine the relevance of the content of the CHOs training programme in the three selected districts,
2. To determine the effectiveness of the methods of the CHOs training programme in the three selected districts,
3. To determine the adequacy of training resources to ensuring the realisation of training objectives,
4. To determine the level of linkage between training and post-training performance of CHOs, and
5. To identify the challenges facing trainees or co-ordinators of the CHOs training programmes

Sampling Procedure

A sample size of 108 CHOs from 28 CHPS zones within three districts was drawn from a total of 197 CHOs from 66 CHPS zones in the 10 districts (old districts) of the Greater Accra region. In addition to 108 CHOs, eight (8) key informants were interviewed. The data was collected using a questionnaire entitled "Assessment of CHOs training programme in three selected districts of the Greater Accra Region". Purposive sampling method was used to select the three districts based on the number of CHPS zones available while convenient sampling was employed to select the CHOs as well as the key informants.

6.3 Main findings

The study came out with a number of important findings. They include the following findings:

1. The study established that each of the modules of the CHOs training programme was rated very high (with module mean scores ranging from 4.4 to 4.9 on the Likert scale applied) by the CHOs in terms of relevance in preparing the CHOs for the tasks ahead of them in the community. The management of the CHOs training programmes confirmed the CHOs rating of the training content as not only very relevant, but also effective to building the capacity of the latter with the requisite knowledge and skills to perform their duties effectively, especially in the community. The diverse topics covered ranging from preventive through promotive, and curative health to management aspect of CHPS activities were relevant to the roles expected of the CHOs. The modules were contained in a well-structured curriculum which ensured consistency of the training content to the various cohorts of trainees of the CHOs training programme, and often served as reference materials during practice. The training package which comes in the form of initial, induction and remedial/refresher training were highly rated by the CHOs as beneficial to equipping them to perform tasks with a mean score of 4.4, 4.2 and 4.3 respectively.

2. The results from the study also established that there is a comprehensive CHOs training programme which comes in a form of Structured In-Service Training to re-orient CHNs to CHOs. All the respondents have participated in the training programme before assuming the position as CHO. The duration for most of the training sessions was two weeks. The training is characterised by practical training which comes in the form of attachment and field visits. The training also comes with subsequent training programme in the form of remedial or refresher courses. There were indications that the training programme has been designed so elaborately and comprehensively that it was delivering on its mandate.

3. The study found that the frequency (with a mean scores ranging from 4.1 - 4.5) of adopting each of these methods was very high, and most frequently used methods (plenary presentations and group work) were more interactive than the least frequently used (lectures) as less interactive methods. These interactive methods were adult learning methods inclined and they skew more towards student-centered teaching and learning strategies. All these training methods adopted in the training sessions were rated very effective (with training method mean scores ranging from 4.5 to 4.8 on the Likert scale applied) by the CHOs. The study identified that the training methods predominantly adopted as the modes of delivery constitute the traditional training methods such as lectures, group work, individual assignments, case study, role play, plenary presentations and fieldwork. The facilitators of the training programme were perceived competent for their facilitative role. Again, adult learning approach was also identified as key strategy in enhancing training outcome, especially, as it was highly acclaimed of its relevance.

4. The study also established a probable linkage between the CHOs training and acquisition of relevant knowledge, skills and attitudes to impact on performance as expected by the participants of the training programme. According to the result, a significant majority (92.6%) of the CHOs indicated that the CHOs training programme was capable of equipping them with the necessary skills mix to embark upon their health development activities in the community. Hence, the high rating (with type of in-service training mean scores ranging from 4.2 to 4.4 on the Likert scale applied) of benefit of the entire CHOs training package to enhancing post-training performance was by the CHOs. This assertion was confirmed by the managers of the CHPS initiative that monitoring and supervision reports coupled with evidence of CHOs activities in the communities attest to the fact that CHOs

training is impacting trainees' performance. The trainees cited activities the training has capacitated them to perform which range from managing and planning health activities to virtually performing the entire CHOs roles. This is a clear manifestations of transfer of learning as a key component of the CHOs training programme design. Feedback received by CHOs out of submitted monthly reports of activities and regular supportive supervision serve as the basis for evaluating CHOs performance in the community. These measures were considered quite effective in ensuring performance of the CHOs.

5. Resources or logistics that were employed in CHOs training programme include Human resources, training material, equipment, accommodation, funds, food, stationery, facilities, and the like. The study established that the majority (97.2%) of the respondents were of the view that allocation for these resources was adequate to meeting training requirements as it always see to the realisation of training objective. However, training budgetary allocation constraint seemed to be a concern sometimes. This assertion was confirmed by the managers of the training programme.

6. The results from the study indicated that the training programme encountered some challenges. About half (50.9%) of the respondents perceived that the CHOs training faced some challenges. These challenges were categorised into administrative challenges which include short duration of training, lack of training materials, and accommodation for trainees, while facilitation challenges include system overload, that is too much materials to learn and difficulty in understanding of CHPS concept.

Budgetary constraints was also identified as a major challenge to the training programme.

6.4 Conclusion

The general conclusion drawn from the study is that the three selected districts of the Greater Accra region have a comprehensive CHOs Training programme in place which is well-designed to re-orient CHNs to CHOs position. The content of the training porgramme is effective to orient trainees to become change agents for health development in their respective communities, and covers spectrum of preventive, promotive, and curative health. This training content is detailed in well-designed training modules. Furthermore, interactive, student-centered training methods were employed to deliver the training content which were rated as very effective. Again, the application of adult learning practices during training sessions was found to be very relevant to enhance congenial learning environment for the realisation of the training outcomes. In addition, the facilitators of the training programme were rated very competent due to their dexterity to adopt the training methods effectively. More importantly, the CHO training programme has been described very beneficial and having the capacity to equip CHOs with the requisite knowledge, skills and attitude, as well as motivation which eventually impacts on post-training performance. Resource availability was fairly adequate to meet training requirements. The nature of the training challenges shows that, with adequate budgetary allocations, these challenges can be averted. It can therefore be inferred and be concluded that conscious efforts are made to incorporate transfer process into the entire CHOs training programme to elicit the interconnectedness of learning during the training programme. This phenomenon of the CHOs training is what adult education aspires, that is having effective learning outcome.

6.5 Recommendations

Due to the fact that every training programme is designed to achieve an outcome, which impinges on learnt competence to be manifested in the work environment (post training performance), it is imperative to provide some recommendations in the light of the findings of the study in order to make the CHOs training programme more effective. The following recommendations are therefore presented with respect to the findings of this study:

1. The study recommends that the duration for the training should be revised and have it extended. The training duration can be extended from the usual two weeks to about four weeks. In so doing, the timetable can be made more flexible to suit the learning demands of the trainees who are largely adults. This position is necessary because there is often complaints of too much learning within the stipulated period for the training. This leads to heavy workload on the training participants which can affect simulation and hence transfer of learning. Since the duration of the training is dependent on funds, the respective District Health Directorates can source for funds from the developmental agency such as USAID and JICA, who are noted for supporting CHPS activities.

2. The study also recommends that more training manuals for both the facilitators and participants copies, be reproduced and made available to trainees during training sessions. This will facilitate the training and learning process to maximise every little time at their disposal. Copies should also be made available to the trainees on completion of the initial training which they can use as reference resources or materials in the course of their practice. It is important to note however that, this may have some financial implications.

3. The study further recommends that the attachment or field internship component of the CHOs training programme be structured and formalized so that deployed CHNs can obtain the experiences required of them in the CHPS zones before they are invited to the initial training. In so doing these prospective trainees will acquire and develop the personal characteristics such as ability, attitudes, beliefs, and motivation usually necessary to learn programme content and apply it on the job.

4. Another recommendation from the study concerns the training contents in *community mobilization and community participation* as well as *communication and communicating health*. There is the feeling that these contents might be a bit technical for the facilitators mainly from the DHMTs to handle to create the desired impact to trainees for their community work. This is because the facilitators seemed be more conversant in handling clinical content than the health promotive content as indicated in chapter 5. As such, it is recommended that efforts should be made to get experts in community development and communication to handle these components of the content. The outcome of this will be that the CHO will be better equipped to engage the community members by empowering them to make informed decision about their health.

5. Again, the study recommends that there should be occasional organization of training of trainers' workshops to help sharpen the competence of resource persons and also improve their application of Andragogy during training sessions to ensure effective delivery and transfer of learning.

6. There should also be periodic refresher training for the CHOs to cover modules that have not been taught during the initial training and also to fill gaps identified in the

performance of their practice. Such continuous education will ensure that knowledge and skills acquired during initial training are not lost easily.

7. Furthermore, this study will recommend that other determinants of performance should be considered as a way of improving CHOs performance. This is because it is believed that training alone might not be enough to guarantee performance, but needs to be provided in conjunction with supervision and support, equipment and supplies, performance evaluation, and incentives. Therefore, the District Health Directorate should be mindful of these factors and ensure that they are available to increase the training effect and improve sustainability.

8. The study also recommends that there should be improved conditions of service for the CHOs. Such conditions of service should include clear career progressions which will enhance the commitment of CHOs and therefore contribute effectively during training and post training performance. With this in place, it will serve as incentive for CHOs to stay on the job as it will eventually reduce attrition, which is common among community health workers, but rather attract more CHNs who often shun away to become CHOs.

6.6 Implication for Adult Education

Critical reflections on the analysis present formidable implications for adult education to focus on effective training programme and community health work.

Principles of adult education should be taken into consideration when designing training programme for health professionals in general and community health workers in particular. Adult learning is considered state of the art for professional health education. This will therefore ensure that training approaches are interactive

enough to encourage the adult learner to come to the training environment with his own experience. That is, the adult CHO who values his experience over the years, would be ready to share them when given the opportunity. This enhances self-confidence of the learner and this is relevant for realization of training outcomes. Experiences acquired by Community Health Nurses during their pre-training for instance, could be tapped to serve as the basis for the learning of CHOs training content.

Another area of interest for adult education is the job of the CHO as a change agent in the community. As a change agent in the community, the CHO is expected to help the community members especially parents who are largely adults to change their health behaviour for the achievement of better health goals. The parents are to learn this and also guide their wards to emulate them. The CHO, the change agent then becomes an adult educator guiding the community members to take healthy behavioural decisions. It is believed that when the CHO's capacity has been built, he/she will be more purposeful in assisting the clients for the desired change.

Adopting the concept of lifelong learning, health professionals with particular focus on community health will constantly update their knowledge and skills to be abreast of current practices in the health profession. This will put them in the right position to provide improved service delivery to their client in the community. This then calls for organisation of programmes such as workshops, seminars, and remedial training or refresher courses to upgrade the competencies of the health workers.

Another implication for adult education to the study is the application of community empowerment in health decision making. As part of their roles, the CHOs are

required to empower community members by helping them to identify their health needs and respecting them as self-directing humans. In addition, dissemination of health information to the community members should take into account cultural values of the community.

Application of adult education to training programme will not only ensure that the essential skills and knowledge are acquired from the training, but most importantly, focus on facilitating learning and development for the person. That is, beyond 'work skills' that the training provides, the whole training should be designed to help trainees grow and develop for life. The training intervention should be able to help them to identify, aspire to, and take steps towards fulfilling their own personal unique potential. This will eventually stimulate the habit of continuous and lifelong learning for the health workers, which adult education aspires.

6.7 Suggestions for Future Research

The findings of the study can be replicated to ascertain authenticity. Future research will attempt to:

- Explore the implementation of GHS In-service Training Policy with focus on the Community Health Officers training programme.
- Explore how continuing education and other support systems serve as a motivation for Community Health Officers to improve performance.
- Evaluate the Community Health Officers pre-training and its relevance to Community Health Officers training programme.

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APPENDICES

Appendix A: Questionnaire

Hello! I am Kojo Anniah, a post-graduate student of the School of Continuing and Distance Education, University of Ghana, Legon. I am carrying out a research on Assessment of Community Health Officers Training Programmes of the Community-Based Health Planning and Services (CHPS) Initiative in your district. The study seeks to assess the effectiveness of the CHOs training programme in the district. Your participation in this research will not be disclosed. This is purely for academic work and response to this questionnaire would be for this intended purpose. It is hoped that the information gathered would enable the researcher come out with recommendations that could help improve the CHOs training programme.

Responding to this questionnaire will take about 45 minutes of your time. Your participation in this study is voluntary. The information you will provide will be treated as confidential and will be used for the purpose of the study only.

In the case you have a question or a clarification concerning this study by any individual, please do contact the researcher at the following address: Kojo Anniah, P.O. Box LG 13, Legon, Accra. Mobile number: 0244-414 744.

Thank you.

Signature of Respondent: …….. Date……

QUESTIONNAIRE

This study is purely for academic purpose. It assesses the CHOs Training Programme. Information provided would be treated with confidentiality.

(Please circle the code you deem appropriate.)

A. **Personal Data**

1. Age (at last birthday):……..

2. Sex: Male…..1 Female…..2

3. Which Community Health Nursing Training School (CHNTS) did you attend and when did you complete?

   a) Institution ……

   b) b) Year Complete …….

4. When were you posted to this district and deplored to your current CHPS Zone?

   a) Date posted to this district……

   b) b) Date deplored to CHPS Zone ……

5. How long (months/years) have you worked as a Community worker? ……

B. **Nature of In-service Training received**

6. Have you received any form of in-service training before assuming this position apart from the one received from college? Yes…..1 No…..2

7. Have you had any in-service training (IST) in the following three types of IST under GHS? (select as many as applicable)

a). Structured In-Service Training (SIST) (*which represents those training programmes that are based on clearly outlined curricula with clearly defined target groups, objectives, content areas, and delivery methods*). Yes…..1 No…..2

b). Remedial / Ad hoc Training (*which refers to any training interventions, which has been designed and organised to fill gaps in knowledge, skills and attitudes that are identified among staff in a defined practice area or institution. They may also take the form of introducing new skills and new ways of performing some procedures*). Yes…..1
No…..2

c). Induction and Orientation (*This is a formally organized initiation of new entrants into the Service or preparation of officers who assume new positions or responsibilities*).
Yes…..1 No…..2

8. If yes to any of the IST in Q9, how long was it and how beneficial was it to your role as CHO?

Type of IST	No. of Times Received in the District	Duration	How beneficial is the in-service training to your role as a CHO?
Structured In-Service Training		a. 1 Day ...1 b. 1 Week or less … 2 c. 2 Week or less … 3 d. 4 Week or less … 4 e. 1 Month or more …5	a. Very Low ...1 b. Low …2 c. Average ...3 d. High …4 e. Very High …5
Remedial / Ad hoc Training		a. 1 Day ...1 b. 1 Week or less …2 c. 2 Week or less …3 d. 4 Week or less …4 e. 1 Month or more …5	a. Very Low ...1 b. Low …2 c. Average …3 d. High …4 e. Very High …5
Induction and Orientation		a. 1 Day ...1 b. 1 Week or less …2 c. 2 Week or less …3 d. 4 Week or less …4 e. 1 Month or more ...5	a. Very Low ...1 b. Low …2 c. Average ….3 d. High …4 e. Very High …5

C. Content of Training Received

10. How relevant has each of the following CHOs training content equipped you with the necessary knowledge, skills and attitudes to do your job as CHO? (Please circle the code you deem appropriate)

No	Topic	Very Low (1)	Low (2)	Average (3)	High (4)	Very High (5)
A,	*Managing CHO Activities*	1	2	3	4	5
B,	*Home Visiting for Health Activities*	1	2	3	4	5
C,	*Supporting Community Health Volunteers*	1	2	3	4	5
D,	*Behaviour Change Communication*	1	2	3	4	5
E,	*Working with Communities*	1	2	3	4	5
F,	*Family Planning*	1	2	3	4	5
G,	*Antenatal Care*	1	2	3	4	5
H,	*Safe emergency Delivery*	1	2	3	4	5
I,	*Postnatal and Infant Care*	1	2	3	4	5
J,	*HIV/AIDS*	1	2	3	4	5
K,	*Immunization*	1	2	3	4	5
L,	*Promoting Good Nutrition in Individuals and Community*	1	2	3	4	5
m,	*Disease Surveillance and Control*	1	2	3	4	5
N,	*Managing Common Ailments and Emergencies in Home and Community*	1	2	3	4	5
O,	*Professional Adjustment*	1	2	3	4	5
P,	*Community Entry and Mobilization*	1	2	3	4	5
Q,	*Communication and Communicating Health*	1	2	3	4	5
R,	*Managing Drugs and Supplies*	1	2	3	4	5
s,	*Health information Management at CHPS Zone*	1	2	3	4	5
t,	*Report Writing*	1	2	3	4	5

11. Do you have access to these training materials during training and your personal copies?

	Types of Training materials	**during training**	**personal copies**	**If yes, how useful are they?**
i.	CHPS Training Manuals	Yes…..1 No…..2	Yes…..1 No…..2	
ii.	CHPS Operational Policy	Yes…..1 No…..2	Yes…..1 No…..2	
iii.	Others (list)			

D. **Training Methods**

13. Which methods are usually adopted by facilitators during training sessions? Indicate their frequency of usage and their effectiveness (select as many as applicable).

No	**a) Training Method**	**b) Ever adopted**	**c) frequency of usage**	**d) Effectiveness**
i	Lectures	Yes…..1 No…..2	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5
Ii	Group works	Yes…..1 No…..2	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5
	Individual Assignments	Yes…..1 No…..2	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5
	Case Studies	Yes…..1 No…..2	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5

	Role Plays	Yes…..1 No…..2	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5
	Plenary Presentations	Yes…..1 No…..2	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5
	Field Work	Yes…..1 No…..2	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5	a. Very Low ……1 b. Low ……2 c. Average …..3 d. High ….4 e. Very High ……5
	Others (specify)			

12. Have you ever had an attachment to a CHPS Zone as part of your CHO training in the district? Yes…..1 No…..2

13. If yes, describe its nature and its relevance to your role as CHO? …….
……

14. How frequently was adult learning methods (the theory and practice of educating adults) adopted during training sessions?
    (a) Very Low [1] (b) Low [2] (c) Average [3] (d) High [4] (e) Very High [5]

15. How relevant is adult learning methods in ensuring your participation and acquisition of competencies during CHOs training programme?

(a) Very Low [1] (b) Low [2] (c) Average [3] (d) High [4] (e) Very High [5]

E. **Training Challenges**

16. How adequate are the training resources (e.g. teaching and learning materials, learning environment, etc) for realisation of training objectives during training sessions?

    Bad ….. [1] Fair …..[2] Good …..[3] Excellent …..[4]

17. How will you assess the facilitators on the training programme?

Not competent …..[1] Somehow competent …..2
Competent …..3 Very competent …..[4]

18. Explain your decision (Q17) …….

……

19. In general, do you think the CHPS Training Programmes have been able to equip you to perform your role as a CHO to perfection? Yes…..1 No…..2

20. If yes/no to Q20, explain

…….....

……..

21. Any generally perceived or actual challenges did you encounter at the training?

……
……

F. **Suggestions**

22. Suggest ways to improve CHPS Training Programmes in the District?

i,……

…….

Appendix B: Questionnaire

Hello! I am Kojo Anniah, a post-graduate student of the School of Continuing and Distance Education, University of Ghana, Legon. I am carrying out a research on Assessment of Community Health Officers Training Programmes of the Community-Based Health Planning and Services (CHPS) Initiative in your district. The study seeks to assess the effectiveness of the CHOs training programme in the district. Your participation in this research will not be disclosed. This is purely for academic work and response to this questionnaire would be for this intended purpose. It is hoped that the information gathered would enable the researcher come out with recommendations that could help improve the CHOs training programme.

Responding to this questionnaire will take about 45 minutes of your time. Your participation in this study is voluntary. The information you will provide will be treated as confidential and will be used for the purpose of the study only.

In the case you have a question or a clarification concerning this study by any individual, please do contact the researcher at the following address: Kojo Anniah, P.O. Box LG 13, Legon, Accra. Mobile number: 0244-414 744.

Thank you.

Signature of Respondent:……. Date……

DHTM/DDH/CHPS COORDINATORS/TUTORS AND SUPERVISORS

A. Background information

District……..

Status: ……

Role played in CHOs Training Programmes in your district? .....

B. Pre-Training Preparation.

1. What preparations are undertaken before CHOs Training in your district?
2. How effective are these planning and preparations for the CHOs Training Programmes in your district?
3. How is the CHOs Training Programmes captured in the In-Service Training (IST) Policy of the GHS?
4. What types of GHS In-Service Training are available for training the CHNs/CHOs in your district, and what do they entail?

C. Content of CHOs Training Programme.

5. What areas (contents) do the CHOs Training Programmes cover?

6. Which contents are considered most relevant and must be covered during at initial training sessions?

D. Learning Methods and Approaches

7. Which GHS In-Service Training forms/approaches (i.e. Structured In-Service Training courses, attachment, on-the-job training, etc) are usually adopted in CHOs Training Programmes your district?

9. Which learning methods (i.e. lectures, case studies, role play, etc) are usually employed in CHOs Training Programmes your district?

10. Which of the above-mentioned learning methods seem appropriate and effective for training in CHOs the district?

11. How familiar are these methods to the facilitators/trainers on the CHOs Training Programme?

12. What measures are put in place to ensure that trainers/facilitators are familiar with the appropriate learning methods in their facilitating engagement?

13. How were the principles of adult learning methods applied in CHOs Training Programme?

E. Resources for the Training Programme

14. What are the various resources that were made use of in CHOs Training Programme?

15. How adequate were these resources in facilitating training of CHOs in the district?

F. Post-Training Performance

16. What procedures were there to monitor and evaluate acquisition of competences/skills after CHOs training sessions?

17. To what extent is the DHMT/SDHMT able to follow up trainees (CHOs) to assess their performance after training?

18. Who are responsible for monitoring post training performance of CHOs?

19. How efficient and effective are these responsibilities carried out by the monitoring team?

20. Are there reports on post training performance for CHOs and how often are such reports produced?

21. To what extent do post training reports indicate a link between CHOs training and their performance in the communities?

22. What is your own assessment of the link between CHOs training and their post training performance in the communities?

23. In your opinion, how effective and relevant is the CHO Training Programme in equipping CHNs/CHOs to perform their roles in the communities the CHOs Training Programme in your district?

G. Challenges of CHOs Training Programme in the District

24. What are the challenges of CHOs training programme?

H. Suggestions for improving the training

25. What are your recommendations for the improvement of the CHOs Training programme for the CHPS Initiative in your district?

Appendix C: Non-Participant Observation Checklist

Non –Participant Observation of Training Session for CHOs at the Dangme West District Health Directorate from 1st - 12th October 2013

1. Specific observable items:

Area of Assessment	Specific item	Availability		Measure of Usage		
		Yes	No	Poor	Quite Good	Good
Facility	Training hall					
	Convenient seating arrangement					
	Conducive Training Environment					
Training situation	Mutual respect					
	Application of Adult Education Principles					
Training materials	Facilitator's manual					
	Trainee's Workbook					
	Other handouts					
	Others:.....					
Training Equipment	Laptop Computer					
	LCD Projector					
	Presentation screen					
Training Aids/Stationery	Flip Chart/stand					
	CHPS Registers					
	Others:.....					
Training methods	Lecture					
	Group Work					
	Individual Assignment					
	Case Study					
	Role Play					
	Plenary Presentations					
	Fieldwork					
Training logistics/administration	Break allocation					
	Food (incl. Water)					

2. Other general observations: ……

……