UNIVERSITY OF CAPE COAST

FACTORS AFFECTING RETENTION OF HEALTH PROFESSIONALS IN THE UPPER WEST REGION OF GHANA

BY

DINA ASIEDU

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Dissertation Submitted to the Department of Human Resource Management of the School of Business, College of Humanities and Legal Studies, University of Cape Coast, in Partial Fulfilment of the Requirements for the Award of Master of Business Administration Degree in Human Resource Management

AUGUST 2018

DECLARATION

Candidates' Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this University or elsewhere.

Candidate's Signature…… Date……

Name: Dina Asiedu

Supervisors' Declaration

We hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature …… Date……

Name: Dr Nana Yaw Oppong

ABSTRACT

The primary objective of this study is to assess the factors influencing retention of health professional in Upper West Region. The multistage sampling procedure was used to select a sample of 126 health professionals. The study employed a cross sectional study design. Primary data were collected using a self-administered questionnaire. The study employs both quantitative and qualitative methods. Data were presented using descriptive statistics. Structural equation modelling (SEM) was used to estimate the relative effects of retention factors on retention decisions of health professional and also Friedman Rank Test was employed to identify the most important strategies to improve retention. The results from the estimations revealed that welfare benefits and working environment were the variables influencing retention of health professionals in Upper West Region. The study recommends provision of good and safe working environment, improve living conditions and welfare benefits in order to make health professionals posts professionally attractive so as to increase attraction and retention of health workers into the region.

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DEDICATION

To my lovely husband, Mr Samuel Sekyi, and my children; Fiifi Essel Sekyi and Yaw Appiah Sekyi

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LIST OF ACRONYMS

CHPS	Community-based Health Planning Services
GHS	Ghana Health Service
HRH	Human Resources for Health
MDGs	Millennium Development Goals
SEM	Structural equation modelling
SPSS	Statistical Product and Services Solution
WHO	World Health Organisation

CHAPTER ONE

INTRODUCTION

Background of the Study

The most significant resource that an organisation possesses is its employees, their numbers, skill, and commitment is crucial to overall growth and success of the organisation. All organisations depend on people to run smoothly. In healthcare organisation, input such as medicines, clean water, diagnostic equipment and the physical infrastructure are all essential components of a functioning health care system. It is the health worker who glues these inputs together into a full mix to provide high quality and effective services (People's Health Movement, 2005). Human resources for health are a key ingredient in combating health crises in some of the world's poorest countries, and for building sustainable health systems (Bangdiwala, Fonn, Okoye & Tollman, 2013). Human resources for health have been recognised as a pre-requisite for an effective and responsive health system (Araujo & Maeda, 2013).

The goal of healthcare organisation, which is the delivery of good quality healthcare, has been found to positively associate with health professional numbers and quality. World Health Organisation (2006) argued 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).

However, shortage of health workers still remains a global challenge. The World Health Report for 2006 estimated that the world needs about 4.3 million health workers if a minimum level of health outcomes is to be achieved (WHO, 2006). These challenges arise from both insufficient numbers and unequal distribution of health workers (Gormley & McCaughey, 2013). Health worker shortages are currently reported by many countries, both developed and developing. In the majority of countries, rural and remote areas usually lack sufficient numbers of health workers.

The shortage of health worker is further worsened by the severe imbalances in the distribution across and within countries. Around the world, there is a tendency for the health workers to be concentrated in affluent urban areas rather than in rural and poorer areas (Araujo & Maeda, 2013). World Health Organisation (2006) estimates that globally approximately one-half of the population lives in rural areas, but these areas are served by only 38 percent of the total nursing workforce and by less than 25 percent of the total physician workforce. Even high-income countries have shortages of health workers in remote and rural areas. For instance, in the United States of America (USA), 9% of registered physicians practise in rural areas where 20% of the population lives (Ricketts, Hart, & Pirani, 2000). France also has large inequalities in the density of general practitioners, with higher densities in the south and the capital compared with the centre and north of the country. In the case of Canada, only 9.3% of physicians work in remote and rural areas where 24% of the population lives (WHO, 2010). Sub-Saharan Africa and Asia are identified as the most

affected areas in term of inequities in healthcare service provision. For example, in Bangladesh, 30% of nurses are located in four metropolitan districts where only 15% of the population lives (Zurn, Poz, Stilwell & Adams, 2004). In South Africa, rural areas are inhabited by 46% of the total population, but only 12% of doctors and 19% of nurses are working there (Hamilton & Yau, 2001; Wilson et al., 2009; IJsselmuiden, Marais, Becerra-Posada & Ghannem, 2012). In the case of Ghana, in 1997 nearly 87% of general physicians worked in urban areas serving only 44% of the population (Dussault & Franceschini, 2006).

The World Health Report 2006 stated that African region has 24% of the global disease burden but only 3% of health workers command less than 1% of world health expenditure. Skill mix and distributional imbalances compound the problems. The spatial maldistribution of health workers means that those who have the greatest need have the poorest services hence fulfilling Hart's "inverse care law" (Hart, 1971).

The organisation Physicians for Human Rights (PHR, 2004) noted that in Africa health professional shortages are the most severe, by far, in rural and other poor areas. Almost all countries in sub-Saharan Africa have health worker to population ratios that are significantly worse in rural areas, whilst surpluses are sometimes evident in urban areas. For example, in Zambia, the total number of public and private sector clinical workers in the districts of Chililabombwe and Livingstone exceeds 2.5 per 1,000 of the population, whereas the rural and marginalized district of Cherub is home to only 0.13 clinical health workers per 1,000 of the population (Herbst, Vledder, Campbell, Sjöblom & Soucat, 2011). In

Kenya, 64% of psychiatrists are located in the capital, Nairobi, which accounts for only 7.5% of the population; and in 2002 in Mali, 265 midwives were posted in Bamako or in regional hospitals, while only 164 were working at the peripheral level. As a result, only 24% deliveries were attended by a skilled professional. In the case of Ghana, the number of public sector doctors, nurses and midwives per 1,000 of the population are 1.43 in urban Greater Accra and only 0.67 in the much more rural Northern Region. When you include private sector providers, the density in Greater Accra of these cadres is believed to exceed the 2.28 JLI/WHO benchmark (Appiah-Denkyira et al., 2012). In 2008, 70% of doctors were concentrated in Greater Accra Region and the Ashanti Region (Apoya, 2012).

In Ghana, the northern sector of the country has more than 2/5 of the national land mass and 30% of the population. However, it has only 20% of the total health personnel. In terms of the "quality" of staff, the three northern regions have 6% of the doctors' population with remaining 94% providing services for the people in southern Ghana (Dovlo, 2013). Shortage of health workers in the three northern regions continues to remain a hindrance to quality health care delivery in the region.

Within the northern regions, Upper West Region has the fewest health professionals (Ghana Health Service, 2010). Though the region has poor health indicators, the people are mostly affected by, diseases targeted by Millennium Development Goals (MDGs). The region does not have access to certain specialized services such as dentistry and eye care. The region basically relies on outreach services to cater for such specialized services. The region continued to

grapple with a shortage of health professionals. For instance, in 2010 only 16 out of the 45 vacancies declared for registered general nurses and only 1 out of 7 for registered general midwives were filled (Upper West Regional Health Services Annual Report, 2010).

Fortunately, in the year 2011 availability of the human resource in the Upper West Region saw some level of appreciation. The total staff population increased from 1,945 in 2010 to 2,129 in 2011 recording an increase of 9.46%. But, the gains were mainly in the auxiliary nursing category. These gains notwithstanding, the region still continues to grapple with inadequate doctors, midwives, physician assistants as well as pharmacy technicians. In the same year, 18 out of the 65 health centres in the region did not have qualified midwives. Additionally, there were only 14 medical doctors as against the estimated 37 required. Almost all health centres did not have the service of pharmacy technicians and the hospitals have to rely on only 23 pharmacy technicians as against the required number of 99 (Upper West Regional Health Services Annual Report, 2011).

The region faced a real challenge in getting the full complement of critical staff to operationalize the five new polyclinics that were completed and handed over to the Ghana Health Service in 2012. Human resource availability and management continued to pose a serious challenge to the quality of health services delivery in the region (Upper West Regional Health Services Annual Report, 2012). For the government of Ghana to achieve equity of access to quality preventive and curative health services, geographical variation in health personnel

distribution need to be addressed in the underserved regions particularly Upper West Region.

Statement of the Problem

Health professionals play a vital and critical role in improving access and quality health care for the population. Based on the primary health care approach, these professionals provide essential services that promote health, prevent diseases and deliver health care services to individuals, families and communities. Health workers are the ultimate resource in healthcare delivery because they manage all other health resources, including finance, technology, information and infrastructure. The density and quality of health workers are major determinants of the health status of populations. It is expected that high number and calibre of health professionals would negatively affect poor health conditions, and positively related to life expectancies, productivity and income level. Availability of well trained and motivated health workers in underserved areas would improve access to essential health services.

The World Health Report 2006 highlighted a worldwide shortage of almost 4.3 million doctors, midwives, nurses and support workers. Unfortunately, thirty-six of the 57 countries with severe shortages health professionals are in Africa. Ministry of Health in Ghana observed that the ratios of key health professionals to Ghana's population have been worsening over the years, resulting in a heavy workload for staff. This development had the potential of undermining

the health sector targets of reducing certain communicable diseases (Ghana Health Service, 2006).

The growing shortage of key professional staff could impact negatively on health service delivery in the country and major challenge to health development. This shortage in the past two decade was due to the exodus of health professionals to foreign countries and this alarmed policymakers and service delivery institutions. Recognizing this problem, the Government of Ghana responded in 1998 by increasing the pay packages of public sector employees through the additional duty allowance scheme. Initially, the scheme was for only doctors but in 1999 nurses were included. Additionally, the government introduced Car Loan/Allocation Scheme for all cadres in 1999, however, these measures did not stem the tide (Ruwoldt & Hassett., 2007). The trend towards a growing loss of staff was relatively reversed around 2005 when a bilateral agreement was reached with the UK government to limit the granting of work permits by the British High Commission to health professionals from Ghana. Another contributing factor was the imposition of more stringent contractual terms for entitlement to government sponsorship for training, such as having guarantors and withholding of certificates until five years of service have been completed (Adjei et al., 2009).

Nevertheless, there are stark imbalances in the geographical distribution of health workers in the country. The situation is more severe in the rural areas, particularly in the northern parts of Ghana and this could threaten the sustainability of health delivery system (Adjei et al., 2009). In the case of Upper West Region, the situation is even worse as critical staff (doctors, midwives and

nurses) to population ratio continue to worsen even though, the health professionals' to population ratio for Ghana has improved (Ghana Health Service, 2010).

Ironically, the region is burdened with poor health indicators. The population are older and poorer than their southern counterparts and often have high rates of poverty-linked diseases. For instance, one of, worst maternal, neonatal and child death, adolescent health and malnutrition indicators. A survey conducted by Ghana Global Health Initiative Strategy indicate that, presence of the malaria parasite in the blood (parasitemia), measured to be as high as 60% in the region during the rainy season, is also directly linked with disastrously high levels of anemia, and more than 78% of all children under five, and almost 60% of all pregnant women, were anaemic and the region has greater rates of underweight (U.S. Global Health Initiative, 2013).

Attraction and retention of health worker are critical for total health system performance. The main issue here is how best to attract and retain health workers in the region. It for these reasons that this study seeks to investigate the factors that mitigate against the successful retention of health professional in the Upper West Region.

Objectives of the Study

The primary objective of this study is to assess the factors affecting retention of health professionals in Upper West Region. The specific objectives of this study are to:

i. Identify the key factors influencing retention of health professionals in the Upper West Region.

ii. Assess perceptions of health professionals on their retention in the Upper West Region.

iii. Examine the interventions that could improve health professionals' retention in the Upper West Region.

Research Questions

i. What key factors influence retention of health professional in the Upper West Region?

ii. What are health professionals' perceptions on their retention in the Upper West Region?

iii. What interventions will improve retention of health professionals in the region?

Hypotheses of the Study

From the literature the following hypotheses were formulated:

H1: Monetary compensation will have a positive effect on employee retention.

H2: Good working environment will have a positive effect on employee retention.

H3: Training and development will have a positive effect on employee retention.

H4: Welfare benefits will have a positive effect on employee retention.

H5: Performance appraisal will have a positive effect on employee retention.

H6: Disciplinary procedure will have a positive effect on employee retention.

H7: Career growth will have a positive effect on employee retention.

Significance of the Study

This study sought to provide relevant knowledge on determinants of retention by analysing the factors influencing health professional decision to accept postings to the Upper West Region. This understanding would guide human resource managers in their future recruitment processes particularly those in the health sector.

The result of this study is intended to help the Ghana Health Service particularly administrators in the region to better understand the benefits of employee retention strategies and provide indications which can be supportive in the development of these strategies.

The study is relevant to stakeholders in the health service delivery such as the government, ministry of health, and private healthcare providers in formulating appropriate policies geared towards reducing inequities in the distribution of health professional in the region and the nation as a whole. Additionally, the study would identify up-to-date interventions that could be used by policymakers and other stakeholders to deploy health professionals to areas where their services are most needed to ensure equity in health care delivery.

The study also contributes to the existing empirical literature on retention of human resource. It is expected that our findings would provide further investigations into human resource management, especially those in the health sector.

Scope of the Study

The study would be confined to the Upper West Region of Ghana. It focused on identifying the factors that affect retention of health professional in the Upper West Region. Health professional in the region would constitute our respondents.

Organisation of the Study

The study is organised into five chapters. Chapter one covers introduction, which is made up of the background of the study, statement of the problem, objectives, research hypotheses, significance of the study, the scope of the study, and chapter organisation. Chapter two constitutes of review of relevant theoretical and empirical literature which relate to the study. Chapter three which is entitled methodology dealt with a description of the study area, an overview of data collection technique, and details about key variables. Chapter four encompasses data analysis and presentation of results. Chapter five presents the summary, conclusions, recommendation, limitations of the study and suggestion for future study.

Definition of Terms and Concepts

Health Workers

WHO (2006) defines health workers to be all people engaged in actions whose primary intent is to enhance health. This broad definition covers two types of health workers. The first group comprises the people who deliver services–

whether personal or non-personal – who are called "health service providers"; the second covers people not engaged in the direct provision of services, they are, "health management and support workers"

In this study health professionals refers to health workers in the formal, regulated health sector (public and non-state) and this includes health-care providers (doctors, nurses, midwives, mid-level health workers, pharmacists, dentists, lab technicians, community health workers, etc.), as well as managers and support workers (human resource managers, health managers).

Under-Served Areas

Under-served areas can be interpreted in the broadest sense to refer to geographical areas where relatively poorer populations reside ─ areas that have limited access to qualified healthcare providers and health services of adequate quality. It may include, for example, remote rural areas; small or remote islands; urban slum areas; areas that are in conflict or post-conflict; refugee camps; and areas inhabited by minority or indigenous groups (WHO, 2010).

Employee Attraction

Employee attraction is defined as 'envisioned benefit that potential employee sees in working for specific organisation' (Bratton, Callinan, Forshaw, & Sawhuk, 2007). Base on this definition, the attraction of health professional to underserved areas may be defined as, envisioned benefit that health professional sees in accepting postings to those areas.

Employee Retention

The word retention means: keeping, maintain. Employee retention refers to how organisations should work to keep their employees. Hausknecht, Rodda, and Howard (2008) define employee retention as "the implementation of integrated strategies or systems designed to increase workplace productivity by developing improved processes for attracting, developing, retaining, and utilizing people with the required skills and aptitude to meet current and future business needs". Retention is a complex concept and there is no single way for keeping employees with a company (Chandranshu & Sinha, 2012). Employee retention can also refer to the outcome of how many are retained per year. However, we see employee retention as a strategy, an effort by a business which supports current employees in remaining with the company. In all retention could be seen as the length of time between commencement and termination of employment. Retention does not refer to indefinite length of service in one location but rather, being at post for a relatively longer period of time to enable employer to achieve return-on-investment costs associated with training, recruitment and effect on patients and varies by the profession, service, location and characteristics of the community (Rural Health West, 2013).

Chapter Summary

Health professionals play an important and critical role in improving access and quality health care for the population. However, there are stark imbalances in the geographical distribution of health workers in Ghana. The

situation is direr in the rural areas, particularly in the northern parts of Ghana. In the Upper West Region, the situation is even worse as critical staff to population ratio worsen even though, the health professionals' to population ratio for Ghana continues to improve. To increase the length of stay of health workers in underserved areas like Upper West Region, it is necessary to understand the factors affecting retention. And also how do these factors operate to trigger a decision to stay or leave. The next chapter review both theoretical and empirical literature on factors affecting retention and intervention to improve retention.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter deals with the review of relevant literature that relates to this study. The review is divided into four sections. The first section comprises the definition of terms and concepts. The second section is devoted to some of the well-known theories that are relevant to this study. The third section would concentrate on empirical literature on attraction and retention of health professionals' as well as interventions for increasing the proportion of health professionals practising in rural and other underserved areas. The final part would develop the conceptual framework for the study.

Theoretical Framework

A theory is a set of interrelated constructs, variables, definitions and propositions that present a systematic view of phenomena by specifying relations among variable, with the purpose of explaining a natural phenomenon (Kerlinger, 1979). A theory is defined by Gill and Johnson (2002) as 'a formulation regarding the cause and effect relationships between two or more variables, which may or may not have been tested Thus, a 'theory' is an interrelated set of variables formed into propositions or hypothesis, that specify the relationship among variables thus in terms of magnitude and direction. A theory might appear in a research study as an argument, a discussion, or a rationale, and it helps explain or predict phenomena that occur in the world.

A number of theories that have been developed and used to understand why people behave in certain ways and also to enable policy makers and managers to understand more about the complex nature of human behaviour. Two sets of theories underpinning this study have been developed over the years as "content" and "process" which deal with the issue of motivation and here we relate the discussion to health professional retention in deprived and underserved area.

Maslow, Alderfer and Herzberg studied motivation from a "content" perspective which seeks to answers the question, what are people's needs and expectations and how do they influence behaviour and performance at work? They explain different need that underpins individual behaviour focus is primarily on individual physiological needs that is what influence behaviour.

Maslow's Needs-Hierarchy

Maslow's needs-hierarchy is one of the prominent theories on motivation which explained motivation using employee needs. Based on the theory, employees have five levels of needs ranked hierarchically (Maslow, 1943). Beyond these needs, higher levels of needs exist. These include needs for understanding, aesthetic appreciation and purely spiritual needs. Maslow classified these five needs into biological and physiological needs, safety needs, social needs, esteem needs, and self-actualization needs. Maslow posited that we must satisfy each need in turn, starting with the first (lower level needs), which deals with the most obvious needs for survival itself before the next higher level needs would motivate employees. According to him, only when the lower order

needs of physical and emotional well-being are satisfied before we are we concerned with the higher order needs of influence, self-actualization or realisation and personal development. Conversely, if the things that satisfy our lower order needs are not removed, we are no longer concerned about the maintenance of our higher order needs. Maslow assumes that some needs are more important than others and must be satisfied before the other needs can serve as motivators. For example, physiological needs must be satisfied before safety needs are activated, safety needs must be satisfied before social needs are activated, and so on. Maslow's theory suggests that an individual's motivational needs aspire to the next level once the lower level needs have been achieved. However, in the present society, these needs are desired by an individual at the same time and must be satisfied simultaneously (Maslow, 1943).

On the first level are biological or physiological needs, these are basic to life and include food, shelter, air, drink, clothing, and sleep. When these needs are satisfied for short period of time and they re-appear. The second level of Maslow's hierarchy of needs included what is referred to as safety (or security) needs. These pertain to protection from physical danger and the interest for a conducive environment. Examples of safety needs include protection from elements, security, order, good working conditions, and stability. The third level is social (or belongingness and love) needs. These mainly refer to social relationships inside and outside the organisation; that is, work group, family, affection, relationships. The final two levels of Maslow's hierarchy of needs include esteem needs and self-actualization needs, respectively. The former refers

to firmly based high evaluation from others for respect and self-esteem. Esteem needs create feelings of self-worth and of being useful and a necessary employee. They include those needs like self-confidence, achievement, competence, mastery, knowledge independence, status, dominance, prestige, and responsibility. Self-actualization needs, on the other hand, refer to self- fulfilment, self- positioning to become actualized in what one is potentially good at; independence and creativity.

Despite its widespread popularity, it has not gone without criticism. It is rigid in assuming that people focus their attention on a single need. The implications of this theory towards the attraction and retention of health professionals in Upper West Region is that no single intervention will be effective in attracting and retaining health professional. There is the need for bodies' of interventions to satisfy all the five levels of need further retention interventions should be prioritized to align with the level of needs, for instance, financial should proceed career advancement.

Herzberg's Two-Factor Theory of Motivation

Herzberg's (1966) proffered another perspective to the whole spectrum of motivation through his acclaimed two-factor theory. According to this theory, needs can be categorized into two factors, namely hygiene and motivators' factors. He argued that hygiene factors are those which create dissatisfaction if individuals perceived them as inadequate or inequitable, yet individuals will not be significantly motivated if these factors as consequently viewed as adequate or good. Simply put, if hygiene factors are seen as adequate they may remove

dissatisfaction but does not guarantee the presence of motivation, motivation requires another set or dose of factors (motivators). Hygiene factors also dubbed as extrinsic factors incorporate aspects such as company policies and administration, supervision (the way they are supervised), salary or remuneration, job security, interpersonal relations, and working conditions.

On the other hand, motivators, also referred to as intrinsic factors include a sense of achievement, recognition, increased responsibility and personal growth and development or those are aspects of the job that makes people want to perform and provide people with satisfaction. What this categorically means is that a person may be satisfied and stay longer in an organisation without their performance guaranteed at the same time, hence satisfaction does not translate or significant correlate with increased or enhanced productivity.

While Hertzberg's model may have garnered wide interest and stimulated much research it has not escaped the scrutiny's eye and vice especially by Hackman and Oldham (1976) who claim that while the formulation of the model may have a methodological artefact, researchers are unable to empirically prove the model reliably. Furthermore, the theory makes a blanket assumption while failing to consider individual differences, conversely predicting all employees will react in an identical manner to changes in motivating or hygiene factors. Finally, the model has been criticised in that it does not specify how motivating or hygiene factors are to be measured.

This theory is relevant to this study in that it recognizes that employees have two categories of needs that operate in them and that both should be

addressed motivational variables influencing staff retention. This theory is instructive in establishing those factors that curb job dissatisfaction and those that motivate and retain health professionals in Upper West Region of Ghana.

Empirical Evidence

This section deals with the review of other people's research works on factors affecting attraction and retention of health professionals and interventions for increasing the proportion of health professionals practising in rural and other underserved areas.

Factors Influencing Attraction and Retention of Health Professionals

There are multiple factors influencing a health worker's decision to relocate, stay or leave a post in rural or underserved areas. These factors are complex and interconnected and are linked to health professional's characteristics and preferences, related to health systems organisation and wider social, political and economic environment (WHO, 2010).

According to Araújo and Maeda (2013), although these factors are context-specific, the evidence from different countries suggests a common set of problems that differ in their mixture and degree of intensity. Frequently reported factors include: unsuitable pre-service training for rural and remote areas practice, lack of opportunities for further training and career development, low salaries, poor working environments, limited availability of equipment and drugs, insufficient family support, inadequate management and unsupportive supervision (Grobler et al., 2009).

Table 1: Examples of Push and Pull Factors

Pull Factors (Attract individuals to other destinations)	**Push Factors** (Repel individuals from a location)
Professional work environment	Lack of promotion opportunities
Better remuneration	Low salaries
Able to save money	Lack of training opportunities
Skills development	Poor retirement benefits
Training opportunities	Heavy workload
Proper infrastructure	Burnout
Modern equipment	Lack of motivation
Better social benefits	Lack of supervision
Recognition of good performance	Lack of proper equipment
Opportunities for research	Poor facilities and equipment
Gain experience	Poor housing conditions
Better living conditions	Lack of appreciation by managers
Upgrading of qualifications	No professional future
Good schools and teachers	Poor management
Quality healthcare	Poor healthcare
Travel opportunities	Poor roads and transport
Job satisfaction	Poor access to information

These have been described by other authors' as "pull" and "push" factors. The "pull" factors are those that attract health professionals to a given post/location (example, higher income or the possibility of practising in the private sector, improved working and living conditions etc.). The "push" factors are those that may coerce health workers not to take up a post in a remote location and not to remain there (Lehmann, Dieleman, & Martineau, 2008).

In identifying pull and push, Amoako (2011) used survey method and provided new and important information regarding the relationship between

financial factors, staff accommodation, working conditions, professional advancement and socio-economic infrastructure and the willingness of health professional to remain in rural health post in Ghana. Financial factors and socio-economic factors were significant in influencing the willingness of healthcare workers to remain at the rural health post. The study revealed that financial incentives influence male health professionals' decision to accept rural postings than female health professionals. Additionally, all categories of health workers place equal importance on good staff accommodation; professional advancement was found to be more important to male and married health workers than female and single health workers. Conversely, with regards to push factors, it was found that lack of good schools for children, poor communication network and poor road network, lack of electricity and potable water and difficulty of finding courtship were the socio-economic factors that push health care workers out of rural health post. Monetary push factors identified were poor remuneration, lack of a second or another source of income and delay in payment of allowances whereas the desire for further training and desire to get more experience were identified as push factors under education.

There is considerable empirical literature on factors affecting attraction and retention of health professionals in rural and other underserved areas. Also, these factors have been broadly grouped into six categories, namely individual or personal factors, community, local environment, and local living conditions, work-related factors, career-related and financial incentives, education system,

national and international context and migration (Lehmann et al., 2008; Dussault & Franceschini, 2006; WHO, 2010).

Individual or Personal Characteristics

Individual or personal characteristics of the health worker such as gender, age, ethnicity, place of origin (rural or urban), personal values and beliefs, have a significant effect on his or her employment decision. The effect of gender on employment decisions is complex and may require a careful understanding of the underlying motivations as well as social context. For example, job movement for women appears to be more likely to be influenced by family considerations, while for men mobility is guided more strongly by economic reasons (Araújo & Maeda, 2013). Dussault and Franceschini (2006) found that female doctors are prone to live in the same location as their husband's job. In the Republic of Congo, as in many sub-Saharan countries, married couples are required by law to live together, "so providers assigned to rural areas marry and move to the cities to be with their spouse" (Crigler, Boniface & Shannon, 2008).

Besides, women are less likely to work in rural areas because of safety concerns and socioeconomic profile. In the Republic of Congo, for non-native women without family or friends in the rural area, locating there without support or protection can carry safety concerns. Rural settings are often considered too dangerous for unaccompanied women, as they cannot ride buses by themselves or feel comfortable leaving to work in the villages at night if needed. Though women account for more than 61 percent of health workers in Congo, this further complicates staffing in the rural areas (Crigler et al., 2008). Also, many female

health professionals come from more educated or urban backgrounds, making them less likely to accept rural posting.

Younger health workers may be more willing to work in rural areas than their older counterpart. A study in Ethiopia that tracked the graduating nursing class of 2004 found that while 34 percent were willing to accept a rural placement that year, the proportion declined to 18 percent by 2007 (Serneels, 2005). Many older doctors may face higher opportunity cost for moving to rural areas because the reputation they built in the city often allows them to have a private practice (usually alongside their public sector duty).

There is a compelling body of evidence from high-middle-and low-income countries which suggests that rural upbringing increases the chance of rural practice (Lehmann, Dieleman & Martineau, 2008; Dussault & Franceschini, 2006). Several longitudinal studies which sought to track the practice locations of physicians in the USA have found that students with a rural background continue to practise in rural areas for an average of 11–16 years after graduation. Also, in South Africa students from rural backgrounds are three times more likely to practise in a rural location compared to their urban counterparts (WHO, 2010).

Altruism, religious beliefs and socio-political convictions are also other personal factors that may motivate student health workers to work in rural or remote areas. For instance, in Rwanda, the main reason for final-year medical students to work long term in a rural area was the "opportunity to help the poor" (Lieavens, Lindelow, & Serneels, 2009). In the case of Ethiopia, the most common reason for rural placement among nursing and medical students was "to

provide healthcare where it is needed most," although nursing students cited it more than medical students (Serneels, 2005). But altruism diminished over time, once they began working (Serra, Serneels, Lindelow & Montalvo, 2010).

Community, Local Environment, and Local Living Conditions

Good living conditions are important determinants of worker decisions to move and stay in a particular area. Factors considered here are availability of good schools for children, safety and security, employment opportunities for the spouse, good staff accommodation, and basic infrastructure such as supply of drinking water, electricity, quality housing, food markets, roads, transport and telecommunication (Serneels & Lievens, 2008; Lievens, Serneels, Butera & Soucat, 2010). Community support and appreciation toward the health workers have also been identified as important pull factors.

Work-Related Factors −Working Conditions and Organisational Environment

Dussault and Franceschini (2006) pointed out that the shortage of health workers in rural and remote areas is more significantly influenced by the problem of retention rather than of recruitment. In other words, a significant number of health workers could be recruited initially to these areas, but they do not usually stay for long, thus resulting in high turnover rates which affect the overall availability of health workers. Rural and other underserved health facilities are often poorly equipped and inadequately supplied with drugs, the physical working conditions are severe, and staff are poorly supported or supervised and often feel isolated and neglected (Araújo & Maeda, 2013). For example, in Ghana doctors in remote areas have identified the sense of "professional isolation" to describe their

working conditions, and highlighted the lack of mentoring and inability to contact peers to discuss cases and share experiences as a major problem (Snow et al., 2011).

Career Related and Financial Incentives

Hart, Salsberg, Phillips and Lishner (2002) argue that a country's ability to recruit and retain health care professionals in underserved areas ultimately depends upon the provision of a stable, rewarding and fulfilling personal and professional environment, nonetheless, the provision of such an environment continues to elude most countries. Rural and other underserved posts are usually associated with the absence of opportunities for professional development, continuing education as well as low remuneration. A study by Souleymane (2005) revealed that young doctors cited "lack of opportunities for postgraduate training" as a key reason for not accepting rural positions in Niger. Therefore, increased salaries and other financial benefits such as scholarships play an important role in the decision to accept the underserved post. Rural and remote jobs are usually unattractive for health workers, particularly for higher level cadres. These jobs have higher opportunity costs, including forgone income (such as additional income from private practice, which is usually less profitable in rural areas). The possibility of generating income in a second employment (for example, private practice) may be more influential than the income generated in the primary employment. Evidence suggests that access to continuing education (professional courses and workshops) is often limited to those working in the rural settings. At the same time, those working in rural and remote areas are often overloaded, as a

result, have a limited amount of time devoted to these activities even if they are available. The absence of senior posts in rural areas, lack of recognition from managers and slower career development are other factors associated with the feeling of "professional imprisonment" identified by those working in underserved areas in Ghana (Snow et al., 2011). Transparency in the system for deploying staffs is an important factor in attracting and retention of health worker in rural or underserved areas. Health professionals may be willing to practice in the underserved area as long as the period for the assignment is well defined and complied accordingly.

Education System

The mode of training of healthcare professionals, the skills they acquire and the situations they are exposed to during training are important factors influencing their future practice choices, including location. According to Araújo and Maeda (2013), the predominant medical education model (hospital-based, curative and of highly specialized care) does not provide the needed exposure and skills for newly graduated professionals to practice in rural and remote areas. It has been showed that medical schools located outside urban centres result in a higher turnover of health professionals in rural and remote areas (Dussault & Franceschini, 2006).

Large observational studies from high- and low-income countries show that medical schools located in rural areas are likely to produce more physicians working in rural areas than urbanely located schools. Clinical placements in rural areas during undergraduate studies is one way to expose students to the health

issues and conditions of service within rural communities, and give them a better understanding of the realities of rural health job. Rural-based training may allow health workers to "grow roots" in such locations and facilitate the development of professional networks. It may also increase awareness of rural health, even for those who may eventually choose not to practice in a rural area on a permanent basis. Access to continuing education and professional development is necessary to maintain competence and improve the performance of health workers everywhere (WHO, 2010). However, it may be difficult for health workers in rural areas to access these programs if it requires travelling to urban locations. A cohort study in Ethiopia by Serneels (2008) indicated that health workers from rural areas or less well-off backgrounds are more motivated to work in rural areas. This evidence supports the assertion that professionals from rural origins are more likely to readily settle in remote areas than their urban counterparts.

The stock of healthcare professionals, division by cadres and level of specialization determine the total number of health workers who would be willing to practice in rural and remote areas. Some lower level or "alternative" cadres, such as health extension workers, may be more willing to work in rural areas because they have a rural background. In Ethiopia, nurses tend to be more willing to work in rural areas than doctors (Jack, 2008). In the case of Ghana, some lower level cadres appreciate the exposure to a wide range of pathologies that come with rural service. Among the reasons cited were that they were sometimes called doctor; were given duties above their skill level; had greater bonding among staff, thus facilitating on-the-job learning skills such as surgery; had more opportunities

to manage teams, developing management and leadership skills; and had higher social recognition in villages, with more associated gifts (Lievens et al., 2007).

Macro-health system factors also play an important role. The manner in which health care is financed and provided, the regulation and the management of the health system, all affect the dynamics of the healthcare labour market including the health workers' choices for employment and location (Araújo & Maeda, 2013).

National and International Context and Migration

Broader socio-economic environment beyond the health care systems can affect the employment and relocation decisions of health workers, especially among those that have job mobility. Social unrest and conflict have been identified as the main reasons for migration (Dussault & Franceschini, 2006).

Emigration results in a shortage of healthcare professionals in the country of origin and thus further worsens the shortages in rural and remote areas in these countries (ironically, in some cases those who migrate served in rural and remote areas in the recipient country). Higher salaries, better working and living conditions, more opportunities for continuing education and career development have all been cited as pull factors associated with migration. The push factors motivating health workers to leave their country of origin may include poor promotion possibilities, inadequate management support, heavy workloads, limited access to good technology, limited job opportunities (both financial and professional) in the home country, as well as political and social instability (Bach,

2003; Buchan, Parkin, & Sochalski, 2004; Kingma, 2006; Muula & Maseko, 2006).

Attracting and retention of health professionals in remote and rural areas were also found to be founded on two interlinked aspects being the factors that influence the decision or choice of health workers to come to, stay in or leave those areas, and the extent to which health system policies and interventions respond to these factors (WHO, 2009). However, often there is a mismatch between what is proposed as a retention strategy and the factors that matter for health workers in their choice for location. For instance, factors that influence health workers decision to practice in remote and rural areas are those related to the socio-economic environment, such as working and living conditions, access to education for children, availability of employment for spouses, insecurity, and work overload. However, often countries have tried to implement financial incentives despite the fact that several studies have consistently shown that financial incentives and awards are neither the first nor the most important factor in the decision to leave or stay in a remote or rural area (Dolea, Stormont, Zurn, Shaw & Braichet, 2009).

In most countries, health system responses are usually not aligned with the factors influencing health workers choices of location. Besides, various schemes are proposed without a baseline study to understand the factors that influence health workers' decisions to choices a particular location. In Ghana, for instance, both proposed and implemented interventions to address this problem are mostly

financial incentives and do not even seem to recognize work in unpopular jobs such as in deprived and remote districts (Witter, Ha, Shengelia & Vujicic., 2010).

From an economic perspective, the mobility of health workers can be expressed as a function of wages differentials. As wages increase (as a result of an increase in demand), more individuals are likely to enter the healthcare labour market, and a more balanced distribution of health professionals might be achieved in the long run (Dussault & Franceschini, 2006; Lehman et al., 2008). Nevertheless, creating the demand for more qualified health workers will require the economic capacity to purchase these services. In developing countries, where households are poor and insurance schemes are limited, and the public sector capacity to employ trained health workers is often limited, there is a significant gap between the need for qualified health workers and the labour market capacity to generate sufficient demand for these workers (Araújo & Maeda, 2013).

Health service labour markets face many factors that may contribute to "market failures", such as asymmetric information, entry regulations among other factors. Additionally, employment decisions are subject to many factors other than financial ones, such as job satisfaction, community recognition, and other factors that influence individual preferences. The movement of health care professionals in the healthcare market is driven by a complex decision-making process, which requires a better understanding of the behavioural characteristics of these professionals. To be successful, any intervention would need to be based on more detailed and accurate understanding of this decision-making process,

including information on how they can vary over time and place (Araújo & Maeda, 2013).

Interventions to Increase Health Professionals in the Rural and other Underserved Areas

To address the problem of health worker shortages in rural and other underserved areas policymakers have used a range of interventions. These interventions are aimed at making rural and underserved areas more attractive through the introduction of a set of incentives (creating *pull* factors) or/and by addressing the *push* factors typically associated with the rural and underserved job. Considerable literature abound from different parts of the world proposing and describing these interventions and which can be used for different categories of health workers (Snow et al., 2011; Zurn, Codjia, Sallc & Braicheta, 2010; Frehywot, Mullan, Payne & Ross, 2010; Grobler et al., 2009; Willis-Shattuck et al., 2008; Lehmann et al., 2008; Dussault & Franceschini, 2006; Wilson et al., 2009).

Following an exploration of the abundant literature on the subject of health worker attraction and retention, various interventions have been adopted by countries and these interventions can be grouped into five distinct categories namely: education policies, monetary incentives, nonmonetary incentives, skill substitution, and human resources for health (HRH) regulatory policies. Grobler et al. (2009) grouped the interventions into four: Educational interventions (e.g. student selection criteria, undergraduate and postgraduate teaching curricula, exposure to rural and urban underserved areas), financial interventions (e.g.

undergraduate and postgraduate bursaries/scholarships linked to future practice location, rural allowances, increased public sector salaries), regulatory strategies (e.g. compulsory community service, relaxing work regulations imposed on foreign medical graduates who are willing to work in rural or urban underserved areas) and support strategies (providing adequate professional support and attending to the needs of the practitioners family).

There is a general consensus among policymakers that given the nature and variety of factors influencing the decision of healthcare professionals' to accept the rural and underserved post, a single intervention is likely to be unsuccessful. Hence, interventions are to be implemented in "bundles", combined in different packages according to a country's socio-economic context and characteristics of the health workers (Araújo & Maeda, 2013).

Regulatory Policies

Regulatory measures can be defined to encompass any government control exercised through legislative, administrative, legal or policy tools. Regulatory measures range from parliamentary laws/statutes to state regulations, policies and guidelines developed by line ministries, and programme guidance. With regard to recruitment and retention of healthcare professionals in underserved areas, the regulatory interventions can be categorized as follows: compulsory service requirements and bonding schemes, expanding the scope of practice of rural health workers, producing different types of health workers and subsidized education for the return of service.

Governments can regulate and establish rules which for all intents and purposes force health workers to move to underserved areas. This approach can be applied by creating coercive measures (compulsory and bonding services) or by combining these with some additional incentives. The most widely used strategy is the introduction of compulsory service which obliges newly graduated health workers to practice in rural or other underserved areas for a given period of time. Frehywot et al. (2010) revealed that more than 70 countries have introduced this intervention. In spite of its popularity, compulsory service has been associated with unfairness and low motivation (consequently low productivity) and it tends to penalize women in particular. Evaluation of this intervention shows its disapproval among students and professionals and difficulties in managing the scheme. It has been criticised as a short-sighted solution because its long-term impact is unknown (Araújo & Maeda, 2013).

Enhancing the scope of practice also known as "Task-shifting" has also been suggested as a way to retain and motivate the health workforce in rural and remote areas. This strategy consists of training lower level health workers to be able to perform higher skilled tasks as a possibility of increasing health service delivery in underserved areas. For instance, in the United Kingdom and in Australia, nurses are allowed to prescribe medicines (WHO, 2010). In low and middle-income countries this strategy is commonly associated with the use of auxiliary cadres. Community health workers, nurse aids, traditional birth attendants, and medical assistants are an integral part of many national health systems (Malawi, Tanzania, Ghana, Argentina, Brazil, Ethiopia, Mozambique and

others). One of the reasons for embracing this policy is that specific types of health workers can be trained to be more receptive and reactive to local health needs, on condition that quality and safety issues are taken into consideration. Added to this, types of health workers that can be trained in a relatively short period of time may be a more financially viable option in low-resource settings (Araújo & Maeda, 2013). Despite its popularity and relative success, task-shifting and the use of auxiliary cadres face resistance from health professionals associations (McPake & Mensah, 2008).

Another regulatory policy for drawing health workers to underserved areas is to combine compulsory services with a set of incentives such as scholarships and other educational subsidies. Examples vary from giving scholarships to provide preferential access to professional training to health workers in rural and remote areas. Indonesia, Thailand, South Africa and Zambia are examples of countries that introduced educational incentives to match with compulsory service and bonding schemes. Generally, the success of compulsory services (with and without additional incentives) depends on general health systems structure and governance. But, evidence of its effectiveness is yet to be confirmed (Araújo & Maeda, 2013).

Financial Incentives

The most frequently used strategy for attracting and retaining health workers in rural and other underserved areas is financial incentives. These can take the form of direct monetary incentives such as allowances and bonuses, or indirect forms such as housing benefits, free transportation, paid vacations, health

insurance, and loans among others. To be effective, benefits derived from financial incentives have to be larger than the opportunity costs associated with working in rural areas (including the possible additional income generated from working in the urban private sector). Evidence on the effectiveness of this strategy is inconclusive. Though it is clear that monetary incentives influence health workers' behaviour and choices, it is argued that intrinsic motivation also plays a role in influencing their behaviour. The risk is that the first set of incentives (extrinsic motivation) may "crowd out" the second (intrinsic motivation) (Araújo & Maeda, 2013).

A contingent valuation study conducted among medical and nursing students in Ethiopia and Rwanda by Serneels et al. (2010) found that intrinsic motivation was significantly related to the health worker's willingness to take up a rural job. Those students who identified the "ability to help the poor" as the most important job characteristic were those with lower reservation wages – the wage at which they would take up a rural job. Another interesting result from the same study revealed that 40 percent of the nursing students would be willing to "go rural" at the prevailing wage, while for doctors only 7 percent would accept the initial wage. Again, students with the rural background and religious affiliation have lower reservation wages and are more likely to take up rural posts (Serneels et al., 2010). These results highlight the importance of intrinsic motivation factors in the health worker's employment decisions and how these motivation factors vary from individual to individual. A similar finding was observed in a qualitative study conducted in Ghana. When asked about their

priority in terms of incentives doctors working in urban and rural areas answered differently. Financial incentives, clear terms of contract, and career development were emphasized by those working in urban areas. Those working in rural areas emphasized career development; clear terms of contract and rewards or recognition (Snow et al., 2011). From the above examples, it is clear that the underlying motivational values play an important role in influencing a health worker's decisions to work in rural and other underserved areas. But, it is important to note that some of these findings are context specific and may vary over time. The effectiveness of financial incentives could be greater if combined with other interventions such as students and health workers with a rural background, compulsory service, improved living conditions and safe and supportive working environment to ensure increased recruitment and retention of health workers. Financial incentives serve as facilitators when introducing other intervention strategies, for example, financial incentives combined with targeted recruitment may result in a higher rate of attraction and retention at a lower cost (Araújo & Maeda, 2013).

Education

Education is the central element of any strategy aimed at improving the provision of healthcare services. The mode of training, the skills the individuals acquire and the situations they are exposed to during training (including aspects of rural health practice in their training) are important determinants of increasing the stock of rural-based health workers.

Statistics from Mexico and Japan show that increasing overall enrolment in medical school has no impact on rural employment (WHO, 2010). Newly graduated professionals can migrate, opt to practice in the urban private sector or even work in other sectors. These findings highlight the need for targeted recruitment policies. Recruiting health workers from rural and remote areas seems to be effective. Evidence from countries such as Australia, Indonesia, and Thailand has shown that health workers with a rural background are more likely to practice in rural areas after graduation.

Exposing students to rural area practice during their training too has been effective. This can be done either by including compulsory rotations in rural settings during their studies or by including in the curricula rural health topics to develop their competences to work in underserved areas. An additional strategy is to relocate medical schools to rural areas. Evidence from China, Democratic Republic of Congo, Japan and USA has demonstrated the effectiveness of this strategy (WHO, 2010; Dolea, Stormont & Braiche, 2010).

Strategies that facilitate access to continuing education such as distance education and e-learning approaches can give rural residents access to education without having to relocate to distant cities. The use of new educational tools such as creating virtual networks of professionals may encourage continuing education and facilitate professional development for those located in rural and remote areas. Initiatives in these areas have been implemented in some countries such as Australia, Taiwan and Thailand (Dussault & Franceschini, 2006).

In all, these strategies aim to integrate education, training, and service. These strategies when combined could encourage students to choose rural health practice as their career choice. A vital point is the need to reform the health education curricula in order to increase the emphasis on primary health care and rural health needs (Araújo & Maeda, 2013).

Professional and Personal Support

Non-financial incentives which address the working and living conditions of health workers are important determinants of retention in rural and other underserved areas. Shortage of health workers in the rural and remote areas are often a matter of retention than attraction. While financial incentives may be decisive in attracting health workers to underserved areas, they seem not to guarantee the retention of these professionals. Once health professionals start to practice in rural and remote areas, professional and personal support may influence their decision to remain there or increase their length of stay (Couper, Hugo, Conradie & Mfenyana, 2007).

Personal and professional support matters related to good infrastructure (such as access to sanitation, electricity, potable water and good roads), opportunities for social interaction (e.g. telecommunications), schooling for children and employment for spouses all rank high on the preferences of health workers. On a professional level, opportunities to advance careers and to communicate and consult with peers through networks, telehealth, among other are equally important. Public recognition of the services rendered by health professionals to communities goes a long way in improving their morale, status

and subsequent desire to work in rural and remote areas. Araújo and Maeda (2013) argue that these are not easy to implement, as they are linked to the wider socio, economic and political context, and require coordinated actions to address them. Countries such as Thailand, Zambia, Mozambique, Kenya and Chile provide good examples in this area. A common strategy is the offering of the housing to staff by the government (Frehywot et al., 2010; Lehmann et al., 2008). As part of the retention strategy in Zambia, the Health Worker Retention Scheme provides lower car loan rates and scholarships to send children to better schools in other areas (Lehmann et al., 2008).

To improve motivation and performance of health workers and consequently health systems performance, organisational aspects are important. Employment in rural and remote areas is often associated with poor management and lack of support. Then any initiatives that seek to improve these aspects may reflect positively in attracting and retaining health workers in these areas. Improved working conditions may include the provision of adequate equipment and supplies, availability of drugs, supportive supervision and functioning management system. Evidence from the Philippines and Papua New Guinea reveal the positive effect of improved supervision on performance and quality of care in remote areas (Lehmann et al., 2008). Other frequent *push* factors related to rural and remote areas post is the feeling of "professional isolation" (Snow et al., 2011; WHO, 2010). This can be solved by facilitating the exchange and cooperation among health professionals. Incentives to networks, regular workshops, conferences, and long distance support through telecommunications

are possible strategies. Professional associations and journals focused on rural health issues contribute to improve professional motivation and diminish the sense of isolation among those working in rural and remote areas (Araújo & Maeda, 2013).

The sense of "professional imprisonment" has been identified as an important aspect usually associated with rural and remote posts. Snow et al. (2011) observed that health professionals in rural or remote area posts often feel forgotten by those who take decisions on career development and other compensations. Also, despite the heavy workload, health professionals lack recognition and appreciation from their managers, local and national authorities and the general community. Developing clear career paths for underserved areas posts and adopting strategies to increase public recognition are strongly recommended. Measures may include defining clear terms of the contract, stating clear career development guidelines and incentives structure. Establishing senior posts for rural and remote areas, with clear terms of promotion, has the likelihood of improving job satisfaction and retention. Health professionals must feel these terms are followed and serve as the main guidance for promotions and rotations. Measures to improve social and professional recognition can be implemented at a relatively low cost, for example, the institution of awards at the local and national levels is one such initiative. The purpose is to show political support and community appreciation of the health professionals' work in underserved areas. These factors could improve intrinsic motivation and attract young students to practice in rural and remote areas in the future (as well as provide the feeling of

role models for those professionals practising in these areas) (Araújo & Maeda, 2013).

It is reasonably clear from the above discussion that interventions in this area are complementary and are more likely to augment each other's' impact but be ineffective in isolation. Subcategories of this intervention are, better-living conditions, safe and supportive working environment, outreach support, career development programmes, professional networks, and public recognition measures.

Conceptual Framework

Conceptual framework is a structure of concepts and/or theories which are pulled together as a map for the study (Liehr & Smith, 2000). In other words, conceptualization is about giving literal and scientific meaning, or definition of the concept. The framework is normally summarized in a schematic diagram which shows the relationship between independent and dependent variables. In this study, the dependant variable is retention whereas the independent variables consist of monetary compensation, working environment, training and development, welfare benefits, performance appraisal, disciplinary procedure, and career growth factors. The study analysed whether the seven variables listed under the independent variable influenced retention of health professional in Upper West Region. Figure 1 shows the conceptual framework on which the study is based.

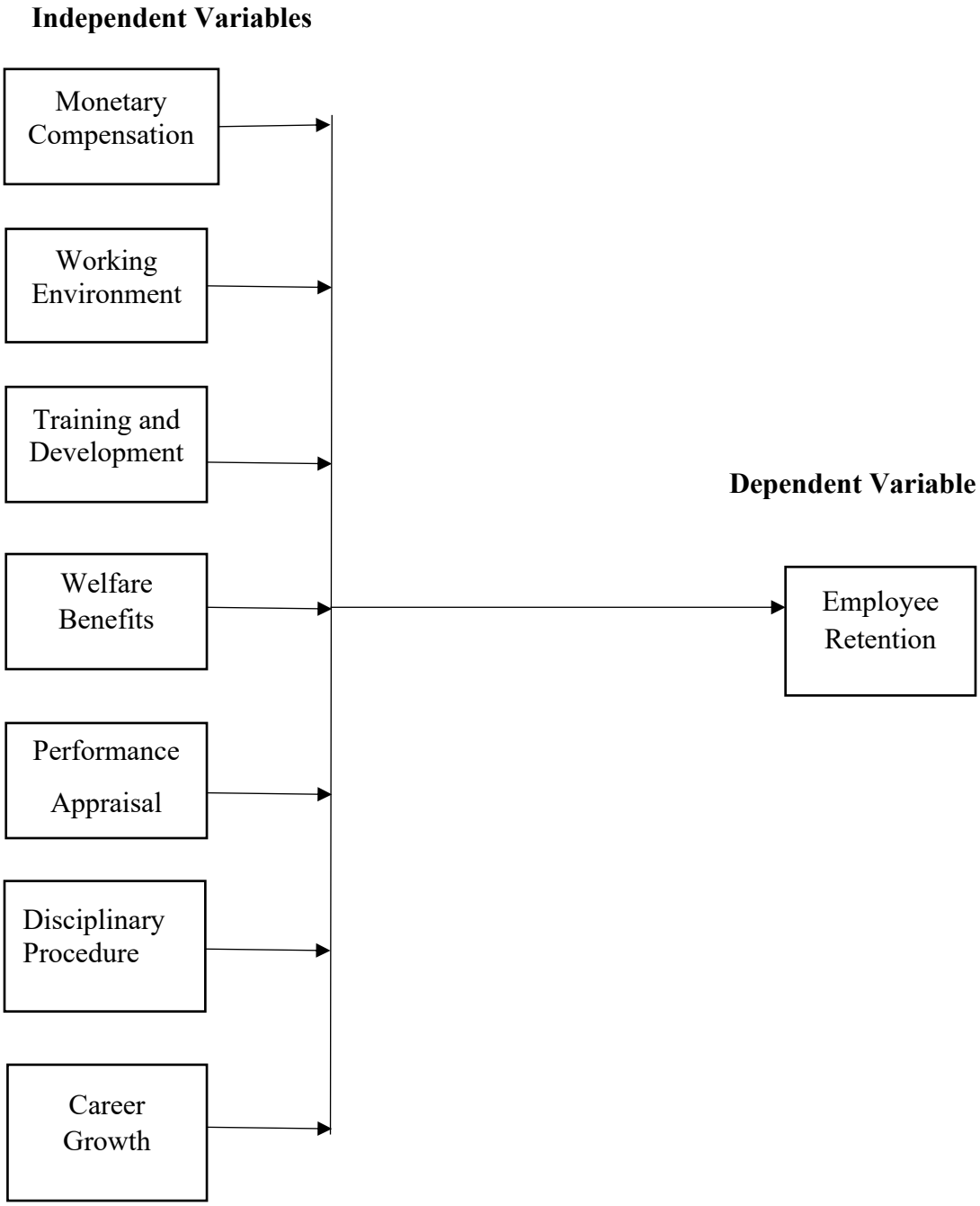

Figure 1: Conceptual Framework

The conceptual framework was developed by looking at factors that could influence employee retention and the review of literature formed the basis of this. Some literature mentioned job training, improved compensation and benefits,

development plans, employee empowerment and engagement as factors influencing employee retention. The objective of this study was to analyse the extent to which the seven independent variables namely monetary compensation, working environment, training and development, welfare benefits, performance appraisal, disciplinary procedure, and career growth influence employee retention. In other words, the study would seek to model individual employee retention as a function of the seven aforementioned factors.

Chapter Summary

This chapter has covered literature on overview of employee retention, theoretical frameworks which comprise Maslow's hierarchy of needs and Herzberg's two-factor theory. Other areas covered include retention and inventions to improve retention. Frequently reported factors influencing a health worker's decision to relocate, stay or leave a post in rural or underserved areas include: unsuitable pre-service training for rural and remote areas practice, lack of opportunities for further training and career development, low salaries, poor working environments, limited availability of equipment and drugs, insufficient family support, inadequate management and unsupportive supervision. These have been described by other authors' as "pull" and "push" factors. Some intervention factors to improve retention includes educational, financial, regulatory strategies, and professional and personal support.

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

The chapter presents the research design, target and study populations, sampling techniques, research instruments, and variables to be studied, data collection procedures, data management and analysis techniques.

Research Design

This study employs the cross sectional study design where the exposure (factors that determine employee retention) and the outcome (employee retention) are measured simultaneously. Data were obtained using questionnaire while a quantitative survey design were employed. The researcher chooses this design because the study is seeking to collect quantitative data which will be analysed quantitatively using descriptive and inferential statistics. Besides, the outcome of the data will assist in making generalizations about the study population about health worker retention in the Upper West Region.

Population of the Study

Population of a research is defined as the people whom appeal to the interest of the researchers in generalizing the outcomes of the research (Thompson, 2004; Trochim, 2004). In this study, the population comprises all healthcare professionals in Upper West Region. The rationale for choosing the

Upper West Region is that health professionals are very difficult to attract and the few attracted seldom stay.

Table 2 provides information on healthcare professionals in Upper West Region as at 2015 and the sample size was calculated based on this categorization of health workers.

Table 2: Healthcare Professionals in Upper West Region and Sample Size

Category of Workers	Population	Sample Size
Medical Doctors	20	2
Physician Assistants	24	2
Medical Assistants	18	1
Health Assistants	77	6
Midwives	156	12
Professional Nurses	285	23
Enrolled Nurses	544	43
Community Health Nurses	469	37
Total	1,593	126

Source: Author's Construct, 2017

Sample Size Determination

The determination of the sample size for this study is based on the formula for categorical data as presented by Bartlett, Kotrlik & Higgins (2001), as shown below:

$$n = Z^2 p \left(\frac{100 - p}{\varepsilon^2} \right)$$

Where: n= sample size, Z= level of confidence which is 1.96, p= proportion of healthcare professionals who choose to work in underserved areas, ε =margin of error

According to Upper West Regional health report (2011), the value for p (i.e. proportion of health professionals who choose to work in underserved areas) is assumed to be 30%. The degree of precision is set at 8% while the standard level of confidence is 1.96. Given that; Z= 1.96, p= 0.3, ε =0.08. From above formula:

$$\boldsymbol{n = (1.96)^2 \times 0.3\left(\frac{1-0.3}{[0.08]^2}\right)}$$

$$\boldsymbol{n = 126}$$

Therefore, the required minimum sample size of respondents will be 126.

The Sampling Frame

This is a complete list of all the cases in the population from which your sample will be drawn. In this study, more than one sampling frame would be used. The sampling frame consists of all health professionals in the region as listed in table 2. These health professionals are made up of medical officers, medical assistants, professional nurses, midwives, health assistance, physician assistance etc.

Sampling Techniques

Since the population of this study is geographically dispersed and face-to-face contact would be needed, multistage sampling technique was used to select

126 health professionals. The first stage involves clustering of health professionals in the study area based on the 11 administrative districts in the region. Thereafter, four districts namely Wa Municipal, Wa East, Jirapa, and Nadowli-Kaleo, were randomly selected and these constituted the target population. The selection of health professionals was based on the principle of selecting more persons from districts with larger health professionals and vice-versa. A close look at the total health professionals in the region as provided by the Upper West Regional Health Directorate revealed that distribution of health care professionals is uneven. Hence, health professionals to be included in the sample were selected proportionately to the total number of health personnel in a given district. Calculation of the total number of health professionals to be drawn from each selected district was based on figures provided by the Regional Health Directorate. Table 3 shows the number of health professionals drawn from each district. Finally, a simple random sampling technique with the help of random function on the scientific calculator was used to select health professionals for the study.

Table 3: Selected Districts with Selected Health Professionals

Districts	Estimated Health Professionals	Selected Health Professionals
Wa Municipal	526	76
Wa East	72	10
Jirapa	77	11
Nadowli-Kaleo	200	29
Total	875	126

Source: Author's Construct,(2017)

Source and Methods of Data Collection

A self-administered questionnaire was used to solicit information on individual characteristics and attitudes that might influence health worker decisions. The questionnaire was designed to answer the research questions identified in chapter one. All constructs were rated on a 5 point-Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree". The collected data was sorted and recorded using Statistical Product and Services Solution (SPSS).

The study tools were adjusted and administered to study subjects in the region. Respondents were requested to participate in the study but it was emphasized that participation was voluntary and anonymous. The purpose of the research study was communicated to the health workers, who were assured that the questionnaires were to be treated with confidentiality and the information was to be used solely for academic work, the nature of which was explained to the respondents. The whole data collection exercise lasted for two months from October and November 2017.

Validity and of the Study Instruments

Validity (accuracy) is the degree to which a test or an instrument measures what it purports to measure (Nachmias & Nachmias, 1996). Multiple data collection techniques were employed to ensure reliability and validity of the study since there is no single data collection technique that is sufficient in collecting valid and reliable data. The researcher designed study instruments that aimed to answer the research questions as per study objectives. Initial fieldwork was

conducted and the research instruments piloted. The pilot study would uncover and solve unforeseen problems when designing and administering questionnaires and interview schedule, such as the phrasing and sequence of questions or its length.

Reliability of the Study Instruments

Reliability was assessed using Cronbach's alpha coefficient (α). This is the most commonly used measure of reliability, for each construct in order to identify the consistency of the entire scale. Perfect reliability is indicated by a coefficient of 1. Generally, a construct is considered reliable when it has an alpha value of greater than 0.70 (Nunnally 1978; Churchill 1979; Pallant 2001). This threshold would be used test strength of the constructs.

Ethical Consideration

The study was approved by the regional health service of the Upper West Region. Information about the respondents was kept confidential.

Variables Used in the Study

Dependent Variable was attraction and retention whereas the independent Variables were the factors that influence attraction and retention. Review of literature indicates that the major determinant of attraction and retention of healthcare professional includes: Monetary compensation factors, working environment factors, training and development factors, welfare benefits factors,

performance appraisal factors, disciplinary procedure, and career growth. Besides, intervention factors to improve retention include educational, financial, regulatory strategies and professional and personal support.

Statistical Analysis

Structural Equation Modelling (SEM)

Structural equation modelling (SEM) is a multivariate technique that combines multiple regression analysis and factor analysis to estimate simultaneously a series of interrelated dependence relationships (Hair, Anderson, Tatham & Black, 1998). This technique was developed from econometric modelling of multiple equation systems. It has been used extensively in the area of psychology and social sciences. For example, SEM is generally used in applications of attitude theory (Perugini & Conner 2000; Hansen, Jensen & Solgaarda 2004). The popularity of SEM is based on its use of confirmatory methods which provide a comprehensive means for assessing and modifying theoretical models for researchers. Hence, SEM offers great potential for furthering the development of theories.

The Features of SEM

An outstanding feature of SEM is its ability to model relationships between both latent and observed variables. Latent variables are those that are non-observable but are operationalised through the process of scale development in terms of measures that are observable. There is a linkage between latent variables and

factors in factor analysis. SEM is seen as a combination of factor analysis and regression or path analysis.

Generally, the SEM analysis consists of two components namely the measurement (factor) model and the structural model. The measurement model specifies the relationship between a latent variable, its (observed) measures and their measurement errors. The measurement model is obtained by conducting confirmatory factor analysis which is used to obtain a good factor structure that fits well. Anderson and Gerbing (1988) argue that all the scales used to define the constructs need to be examined through the estimation of the measurement model. On the other hand, the factor structure (the observed variables mapping on to the latent factors) is then used to estimate the full latent variable structural path model (Kelloway 1996). In the structural model, the correlational and dependence relationships between latent variables and observed variables comprise the main elements of the model (Hair, Black, Babin & Anderson, 2010).

Advantages and Disadvantages of SEM

A number of advantages are associated with the use of SEM for data analysis rather than traditional 'measured variable only' technique, such as regression or multivariate analysis of variance. To begin with, SEM allows the results of relationships between constructs not only unbiased by measurement error but also equivalent to relationships between variables of perfect reliability (Werner & Schermelleh-Engel 2009). Moreover, SEM allows researchers to examine complex patterns of relationships. When the phenomena of interest under consideration are complex and multi-dimensional, SEM is the only technique that

allows complete and simultaneous tests of all the relationships whereas the other methods of analysis frequently require several separate analyses. Also, SEM allows researchers to use several indicator variables per construct simultaneously, leading to more valid conclusions on the construct level (Werner & Schermelleh-Engel, 2009). The rationale for using SEM in this study is that it allows a broad range of factors affecting retention of health professionals to be addressed simultaneously.

Conversely, Tabachnick and Fidell (2001) identified some limitations. First, SEM needs to be developed with some underlying theory. That is, it cannot be used without prior knowledge of, or hypotheses about potential relationships among variables. Although theory can be important in all multivariate procedures, it is particularly important for SEM because it is considered a confirmatory analysis testing a pre-specified relationship. Furthermore, the process of interpreting the results is often more complex compared to other methods, as assumptions on the data are relatively high. These problems were overcome in this study, as a research model was developed based on an extensive literature review.

The Technique for Running SEM

Two main estimation techniques are used under SEM namely exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). EFA is normally used in exploratory research to reveal the underlying factors for identifying the relationships between the latent factors and the observed variables. The purpose is to extract the minimum number of factors that are able to explain the covariance among the observed variables. Thereby addressing the question: how many

factors are needed to best represent the data? The unique feature of EFA is that the factors are derived from statistical results, not from theory. Hence, they can only be named after factor analysis has been performed (Hair et al., 2010). This approach is particularly designed for situations where links between the observed and latent variables are unknown or uncertain (Sureshchandar, Rajendran & Anantharaman, 2002). However, EFA suffers from some limitations. For example, although researchers can have a fairly good idea about the presence of a particular factor, they need to decide which variable should be retained or deleted (Byrne, 2001; Tharenou, Donohue & Cooper, 2007). Moreover, in some cases, an item may loads on no clear factors or more than one factor so that not only the distinctiveness of the factors but also the unidimensionality of the item can be affected.

On the contrary, confirmatory factor analysis (CFA) is able to overcome the limitations associated with EFA and address the problem by statistically testing the interrelationships between the observed and the latent variables (Hair et al. 2010). CFA is often used when the researcher has some understanding of the underlying latent variable structure. That is, if the researcher has the complete control over the specification of indicators for each construct, SEM would play a confirmatory role by testing the measurement theory. Before estimating SEM, the hypothesised model involved in the relations between the observed measurement and the underlying factors is built on logic and theoretical findings. In summary, CFA merely plays a role in testing how well measured variables represent a smaller number of constructs within the framework of SEM, compared to

exploratory factor analysis (Hair et al., 2010). Therefore, confirmatory factor analysis is a special type of factor analysis and is the first part of a complete test of a structural equation model. The interest of this study is mainly to look at the interrelationships between constructs to identify the determinants of retention of health professionals, therefore, adopting confirmatory factor analysis technique is most appropriate.

Estimation Method

Several procedures are undertaken to test the measurement properties of the model using a latent variable and structural equation modelling. For instance, maximum likelihood estimation (MLE) is the most widely used approach due to the MLE's potential sensitivity to non-normal data (Hair et al., 1998; Kline, 1998; Byrne, 2001). Beside this, there are other model fit criteria commonly used which include chi-square (χ^2), goodness of fit index (GFI), adjusted goodness of fit index (AGFI), root mean square error of approximation (RMSEA), normed-fit index (NFI), comparative fit index (CFI) and Tucker-Lewis index (TLI). These criteria are based on differences between the observed (original, S) and model-implied (reproduced, E) correlation or covariance matrix (Schumacker & Lomax, 2004). In this study, RMSEA and NFI were adapted to evaluate the model fit.

Data Analysis

Data analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data groups (Kothari, 2004). Data from the questionnaires were analysed using SPSS version 20 and

SmartPLS 3. Before then, the data were first carefully edited to detect errors and omissions, these were then corrected to ensure accuracy, consistency, uniformity and completeness of data. The data were coded, that is identifying and classifying each answer with a numerical score or another character symbol.

The demographic characteristics and frequency distributions of respondents were first determined using the SPSS. Data were presented using descriptive statistics including tables, frequencies and percentages and charts. Structural equation modelling (SEM) was used to estimate the relative effects of monetary compensation, working environment, training and development, welfare benefits, performance appraisal, disciplinary procedure, and career growth on retention decisions of a healthcare professional in Upper West Region in Ghana.

Finally, to examine the interventions to improve retention, responses of health professional concerning factors to improve retention was analysed quantitatively using Friedman Rank Test. This test was employed to identify the most important interventions. A ranking is a relationship between a set of items such that for any two items, the first is ranked higher than the second. The ranking makes it possible to evaluate complex information according to certain criteria. Friedman rank test (Friedman, 1937) is a nonparametric model and is specified as follows:

$$FM = \left[\frac{n}{N^{*}K^{*}(K+1)}\right] \star \sum R^{2} - [\, V^{*}N^{*}(\mathrm{K}+1)\,]$$

Where n= the number of subjects, k =the number of treatment and V = the total ranks for each columns

Chapter Summary

The chapter presents the research design, study area, target and study populations, sampling techniques, research instruments, and variables to be studied, data collection procedures, data management and analysis. SEM would be used to estimate the relative effects of monetary compensation, working environment, training and development, welfare benefits, performance appraisal, disciplinary procedure, and career growth on retention decisions of a healthcare professional in Upper West Region in Ghana. The next chapter analysed the data collected.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents data analysis, presentation and interpretation of the results. The objective of the study was to analyse the factors that influence retention of health professional in Upper West Region. The study explores how retention of health professionals is influenced by monetary compensation, working environment, training and development, welfare benefits, performance appraisal, disciplinary procedure, and career growth. Besides, the study examines the intervention factors to improve retention of health professional in the region. And among the factors considered include educational, financial, regulatory strategies and professional and personal support. These issues are presented and discussed as follows.

Socio-demographic Characteristics of Respondents

This section attempts to give a brief description on the background of the respondents in the survey. The demographic characteristics of the respondents point to their appropriateness in answering the questions and also look at the employment demographics at Ghana Health Service in the Upper West Region. Among the demographic information considered in this study include gender, age, marital status, the category of staffs, religious affiliation, and area of professional education.

Table 4: Gender of the Respondents

Gender	Frequency	Percentage (%)
Male	52	41.3
Female	74	58.7
Total	126	100

Source: Field Survey Data, 2017

Table 4 gives the sex composition of the respondents. The results revealed that majority of the respondents representing 58.7% were female while 41.3% were male. This is an indication that factors affecting attraction and retention of health professionals in the Upper West Region of Ghana reflected the perspectives of both genders.

Table 5: Age Distribution of Respondents

Age	Frequency	Percentage (%)
18-30 years	79	62.7
31-40 years	38	30.2
41-60 years	9	7.1
Total	126	100

Source: Field Survey Data, 2017

Table 5 shows the age distribution of the respondents. The findings as shown indicate that majority of the respondents (62.70%) were aged between 21 and 30 years, followed by ages between 31 and 40 years constituting 30.2% of the respondents and the proportion of respondents aged between 41 and 50 years was 7.14%. In general, it was observed that 92.9% were between the ages of 21 and 40 years, hence dataset was dominated by the youth. The findings show that health

professionals in the Upper West Region are youthful and therefore have high potential to migrant which rendered them conversant enough with factors affecting attraction and retention of health professionals in the Upper West Region of Ghana.

Table 6: Marital Status of the Respondents

Marital Status	Frequency	Percentage (%)
Never Married	50	39.7
Married	72	57.7
Divorced	2	1.6
Widowed	2	1.6
Total	126	100

Source: Field Survey Data, 2017

Table 6 indicates the marital status of the respondents. The finding shows that majority (57.7%) of the respondents were married, 39.7 never married while divorced and widowed were 1.6% each. The study findings show that health professionals in the Upper West Region of Ghana are mainly married.

Table 7 reveals the religious affiliation of the respondents. The results reveal that 93 of the respondents constituting 73.8% were Christians while 30 representing 23.8% belong Islamic faith, followed by others (1.6%) and traditionalist (0.8%). These findings show that majority of the respondents were Christians.

Table 7: Religious Affiliation of the Respondents

Religious Affiliation	Frequency	Percentage (%)
Christianity	93	73.8
Islam	30	23.8
Traditional	1	0.8
Others	2	1.6
Total	126	100

Source: Field Survey Data, (2017)

The area where health professionals had their professional education is presented in table 8. It was observed that out of 126 individuals 70.6% had their professional education in the urban area while 29.4% had their professional education in the rural area.

Table 8: Area of Professional Education

Area	Frequency	Percentage (%)
Rural	37	29.6
Urban	89	70.6
Total	126	100

Source: Field Survey Data, (2017)

Perception of Retention of Health Professionals in the Upper West Region

Respondents' Perception of Employee Retention

Before looking at the effects of monetary compensation, working environment, training and development, welfare benefits, performance appraisal, disciplinary procedure, and career growth on employee retention, the study

explored respondents' perception on retention of their employment at the Ghana Health Service. Responses to the statements were rated on a five-point Likert scale on which 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree. Mean and standard deviation was computed using SPSS. The mean value is calculated for each statement to facilitate comparison.

Table 9: Respondents' Perception of Employee Retention

Employee Retention	Mean	Standard Deviation
I often think of leaving the region	3.32	1.407
I am job searching	2.28	1.191
I love my job in the region	3.17	1.233
I am hoping to retire in the region	2.42	1.353
I will recommend Upper West Region to people in other regions	2.88	1.423

Source: Field Survey Data, (2017)

Table 9 presents the estimation results of perception of health professionals' retention at Ghana Health Service in the Upper West Region. The results were interpreted by regarding responses with mean close to 1 as strongly disagree, 2 as disagree, 3 as neutral, 4 as agree and 5 as strongly agree. This result shows that on the average, respondents were of moderate opinion regarding whether they often think of leaving the region, love their job in the region and whether they would like to recommend the region to people of other regions as indicated by mean values of 3.32, 3.17 and 2.88 respectively. Since these values are closer to 3 means that respondents had a neutral view. However, health

professionals disagreed with the opinion regarding whether they are job searching and whether they are hoping to retire in the region as indicated by mean values of 2.28 and 2.42 respectively.

Monetary Compensation and Retention of Health Professionals

The study looks at the effects of monetary compensation on retention of health professionals in the Upper West Region of Ghana. Five statements measured monetary compensation and respondents were asked to indicate how these factors affect their retention in the region. These statements were whether Ghana Health Service (GHS) offers competitive and fair salary, housing and vehicles loans, provide adequate rewards for a good job done and opportunity of holding a second job. Summarised on Table 10 are respondents view on how their retention is influenced by these factors. The results show that on the average, respondents almost disagree with the statements that their retention was influenced by monetary compensation factors. Among the factors, respondents disagree were competitive salary, fair salary offered by GHS, housing and vehicles loans, reward and opportunity of holding a second job with mean values of 1.70, 1.87 1.64, 1.86, and 1.79 respectively. This implies that respondents disagree their retention in the region is being influenced by Ghana Health Service (GHS) offering competitive and fair salary, provision of housing and vehicles loans, provision of adequate rewards for a good job done and opportunity of holding a second job. This is so because these values are closer to the value 2.

Table 10: Monetary Compensation and Retention of Health Professionals

Monetary Compensation	Mean	Standard Deviation
GHS offers competitive salary	1.70	0.923
Fair salary offered by GHS	1.87	0.996
Housing and vehicles loans	1.64	0.853
Adequate rewards for a good job done	1.86	0.969
An opportunity of holding a second job	1.79	0.870

Source: Field Survey Data, (2017)

Surprisingly, these findings suggest that health professionals in the Upper West Region disagreed that their retention in the region is influenced by monetary compensation. These findings support earlier studies by Dolea et al. (2009) which suggest that financial incentives and awards are neither the first nor the most important factor in the decision to leave or stay in a remote or rural area.

Effects of Working Environment on Retention of Health Professionals

In looking at the effect of working environment on retention of health professionals six statements were used. These include whether GHS provides modern equipment, light workload and no burnout, proper infrastructure, there is higher social recognition, good working relationships with colleagues and superiors. Summary of the findings are presented in Table 11.

It could be observed that on the average respondents disagree to the statements that their retention was influenced by the provision of modern equipment by GHS (1.84), light workload and no burnout (1.77), proper

infrastructure (2.17) and good working relation by superiors and higher social recognition (1.69). These mean values are closer to 2 meaning that respondents disagreed to these factors as influencing their retention in the region. However, the respondents had a neutral opinion on the influence of good working relationships with colleagues (3.13) and good working relationship by superiors on retention of health professionals in the region.

Table 11: Working Environment and Retention of Health Professionals

Working Environment Factors	Mean	Standard Deviation
Provision of modern equipment by GHS	1.84	1.007
Light workload and no burnout	1.77	0.792
Proper infrastructure	2.17	1.194
Higher social recognition	1.69	0.853
Good working relationships with colleagues	3.13	1.286
Good working relation by superiors	2.97	1.283

Source: Field Survey Data, (2017)

Training and Development and Retention of Health Professionals

The study investigated the extent to which training and development factors influence retention of health professionals in the Upper West Region. Five statements were used to measure training and development and these are GHS supports staff training, training opportunity are allocated fairly, training and development relating to career, training and development enhancing performance, and training and development based on promotions. The results are shown in Table 12.

Table 12: Training and Development and Retention of Health Professionals

Training and Development Factors	Mean	Standard Deviation
Supports for staff training by GHS	2.42	1.222
Training opportunity being allocated fairly	2.24	1.091
Training and development relating to my career	2.65	1.175
Training and development enhancing my performance	2.59	1.168
Training and development based on promotions at GHS	2.48	1.150

Source: Field Survey Data, (2017)

The results show that on the average, respondents almost disagree to the statements that employees' retention was influenced by supports for staff training, training opportunity being allocated fairly, and training and development based on promotions with mean values of 2.42, 2.24 and 2.48 respectively. These values are closer to 2, hence respondents disagreed on these factors as influencing their retention in the region. There were mixed opinions regarding whether training and development relating to career development and training and development enhance performance with mean values 2.65 and 2.59 respectively. The findings indicate that health professionals in the Upper West Region do not agree on the training and development offered by Ghana Health Service as a means of retaining health workers in the region.

Career Growth and Retention of Health Professionals

The study further investigated the influence of career growth on retention of health professionals in the Upper West Region of Ghana. In measuring career growth, five statements were used. These are whether Ghana Health Service

supports staff career growth on merit and experience, a clearly defined career path, merit and experience based promotion, staff mentorship and coaching programs, and succession planning practices in the service. The effects of career growth on retention are shown in Table 13.

Table 13: Career Growth and Retention of Health Professionals

Career Growth	Mean	Standard Deviation
Supporting staff career growth on merit and experience	2.48	1.211
A clearly defined career path in GHS	2.60	1.167
Merit and experience based promotion	2.71	1.167
Staff mentorship and coaching programs	2.48	1.122
Succession planning practices	2.40	1.118

Source: Field Survey Data, (2017)

This findings shows that on the average, respondents have a neutral view on the statements that their retention at the Ghana Health Service in the region is influenced by GHS supporting staff career growth on merit and experience (2.48), clearly defined career path (2.60) and merit and experience based promotion (2.71) and staff mentorship and coaching programs (2.48). These values are closer to 3, hence respondents moderate opinion on the effects of these factors in influencing their retention in the region. However, they disagree with the statement that their retention is influenced by succession planning being practised in the organisation (2.40). These findings implied that health professionals in the region have a moderate opinion regarding the effects of career growth on retention.

This finding is almost in line with a study by Arnold (1996) who argued that career management and career self-management lead to clarification of organisational plans and provide an accompanying individual with opportunities to dispel anxiety and frustration in employees, hence promote retention.

Welfare Benefits and Retention of Health Professionals

The effects of welfare benefits on retention of health professionals in the Upper West Region were examined using four statements. These statements were whether the leave administration policy influence retention**,** GHS care for its employee's welfare**,** GHS provides recreational facilities and educational policies for staff and dependents. Summarised results are shown in Table 14. The results revealed that respondents disagreed on all welfare factors as an indicator of their retention in the region. For instance, respondents disagreed that leave administration policy (2.37), care for employees' welfare (2.06), provision of recreational facilities (1.82), and educational policies for staff and dependents (2.07) by GHS influence retention of health professionals in the Upper West Region. These values averaged the value 2, means that respondents disagreed that leave administration policy, care for employees' welfare, provision of recreational facilities, and educational policies for staff and dependents influence their retention in the service. The implication of this findings revealed that GHS does not have proper welfare policy to attract and retained health professionals in the region.

Table 14: Welfare Benefits and Retention of Health Professionals

Welfare Benefits Factors	Mean	Standard Deviation
Leave administration policy influence retention	2.37	1.122
GHS care for its employee's welfare	2.06	1.122
Provision of recreational facilities by GHS	1.82	0.916
GHS educational policies for staff and dependents	2.07	1.147

Source: Field Survey Data, (2017)

Performance Appraisal and Retention of Health Professionals

The study further examined the effects of performance appraisal on retention of health professionals in the Upper West Region of Ghana. The five statements were employed to measure performance appraisal and these were whether GHS have clearly stated performance targets, supervisor set performance targets, there are fairly performance ratings, sufficient performance appraisal, and performance appraisal results used for career growth. Table 15 shows the results of the effects of performance appraisal indicators on retention.

The findings show that on the average, respondents disagree to the statements that their retention in the region was influenced by clearly stated performance targets, performance targets being set my supervisor, and fairly performance ratings, with mean values of 2.42, 2.24 and 2.48 respectively. These value are closer to 2 which imply that respondents disagree to these statements as influencing their retention. However, respondents have a neutral opinion

regarding the effects of sufficient performance appraisal and performance appraisal results used for career growth on retention.

Table 15: Performance Appraisal and Retention of Health Professionals

Performance Appraisal Factors	Mean	Standard Deviation
Clearly stated performance targets influence retention	2.41	1.126
Performance targets set by the supervisor	2.47	1.122
Fairly performance ratings	2.43	1.141
Sufficient performance appraisal	2.53	1.157
Performance appraisal results used for career growth	2.67	1.193

Source: Field Survey Data, (2017)

Disciplinary Procedure and Retention of Health Professionals

The effects of disciplinary procedure on retention of health professionals in the Upper West Region of Ghana were examined. Here five indicators were used and these include fair and just disciplinary procedure, supervisors correct staff at fault humanly, clearly communicated disciplinary rules and regulations, allowing appeals on disciplinary decisions, and disciplinary actions being applied to all without favour. Table 16 presents results of the effects of disciplinary procedure on retention.

Table 16: Disciplinary Procedure and Retention of Health Professionals

Disciplinary Procedure	Mean	Standard Deviation
Fair and just disciplinary procedure	2.38	1.172
Supervisors correct staff at fault humanly	2.62	1.258
Clearly communicated disciplinary rules and regulations	2.49	1.122
Allowing appeals on disciplinary decisions	2.38	1.042
Disciplinary actions being applied to all without favour	2.21	1.063

Source: Field Survey Data, (2017)

This finding indicates that on the average respondents mainly disagree to the statements that fair and just disciplinary procedure (2.38), supervisors correcting staff at fault humanely (2.62), clearly communicated disciplinary rules and regulations (2.49), appeals are allowed on disciplinary decisions (2.38), and disciplinary actions applied without favour (2.21) influence retention. The results mean that health professionals in the region disagree that disciplinary procedure used by GHS influence retention. Other studies highlight the relationship between disciplinary procedure and employee retention. For example, Singh and Nzuve (1992) stated that failure of an organisation to follow a fair, transparent and uniform disciplinary procedure and this may result in legal penalties (i.e. damages) and/or annulment of the firm's action. This may, in turn, affect the retention of undisciplined employees.

Reliability and Validity of Measures

Reliability tests were run using the Cronbach's alpha (CA), Average Variance Explained (AVE) and the Composite Reliability (CR) statistics while the construct validity and discriminant validity were checked to confirm the overall validity of scales. Empirically, for a good and reliable instrument, the values of Cronbach's alpha and composite reliability coefficients should always be higher than 0.7 (Nunnally, 1978) while Average Variance Explained should be significantly above 0.5 (Hair et al., 2017). Results, as shown in Table 17, revealed that all the Cronbach's alpha coefficients were above the recommended threshold value of 0.70 which means that the responses strongly hang together and thus internal consistency was achieved.

The composite reliabilities of the different measures range from 0.834 to 0.913, which exceed the recommended threshold value of 0.70. This indicates that the measures are robust in terms of their internal consistency reliability. Additionally, consistent with the guidelines of Fornell and Larcker (1981), the average variance extracted (AVE) for each measure exceeded the minimum threshold 0.50.

Construct validity test was also checked to ensure the validity of the study instruments. Construct validity is used to determine how well a test measures what it is supposed to measure. Construct validity ensured conducting a confirmatory factor analysis using the items under each construct. Construct validity was first ensured by retaining only strongly loaded items of each construct.

Table 17: Validity and Reliability Test Results

Constructs/Measures	Loadings	(t-values)
Monetary compensation (CA=0.659; CR=0.558; AVE=0.281)		
GHS offers competitive salary	0.172	0.428
Fair salary offered by GHS	0.229	0.531
Housing and vehicles loans	0.161	0.402
Adequate rewards for a good job done	0.969	1.229
An opportunity of holding a second job	0.599	1.137
Career growth (CA=0.837; CR=0.882; AVE=0.600)		
GHS supporting staff career growth on merit and experience	0.709	8.774
The career path for individuals is clearly defined at GHS	0.755	9.646
Promotions based on merit and experience	0.799	18.467
Retention influenced by staff mentorship and coaching programs	0.772	14.852
Succession planning practice	0.832	14.825
Disciplinary procedure (CA=0.884; CR=0.913; AVE=0.678)		
Fair and just disciplinary procedure in the region	0.847	20.692
Supervisors at GHS correcting staff at fault humanely	0.809	19.044
Disciplinary rules and regulations are clearly communicated to staff	0.845	22.512
Appeals are allowed on disciplinary decisions	0.885	31.789
Disciplinary actions being applied to all without favour	0.724	7.767
Performance appraisal (CA=0.888; CR=0.921; AVE=0.746)		
Performance targets being clearly stated	0.873	32.706
Performance ratings being done fairly	0.874	26.535
The performance appraisal review period is sufficient	0.896	39.050
Performance appraisal results used for career growth	0.810	14.221
Training and development(CA=0.769; CR=0.839; AVE=0.648)		
GHS supports for staff training and development	0.883	8.547
Training opportunities allocated fairly	0.520	2.470
Training and development based promotions at GHS	0.945	11.189
Welfare benefit (CA=0.846; CR=0.893; AVE=0.679)		
Leave administration policy is influencing retention in the region	0.837	4.592
GHS cares for its employee's general welfare	0.890	5.024
Recreational facilities provided to staff at GHS	0.678	3.984
GHS education policy for staff and dependants	0.873	4.862
Working environment (CA=0.750; CR=0.834; AVE=0.502)		
GHS provides adequate modern equipment	0.683	7.819
Proper infrastructure (like electricity, water, good roads, etc.)	0.768	14.327
Higher social recognition in the region, with more associated gifts	0.612	6.000
Good working relationship with my colleagues	0.749	10.776
Good working relationship with my superiors	0.720	9.452

Source: Field Survey Data, (2017)

Notes: CA = Cronbach's Alpha; CR =Composite Reliability; AVE = Average Variance Extracted

For strongly fitted models, items of factor loadings of less than 0.6 were dropped bringing the total range of factor loadings to 0.620 – 0.906 (see Table 17). This drastically reduced the number of items for some constructs to a manageable size for the analysis. It could be observed that monetary compensation indicators have a weak factor loadings as all of them were not statistically significant. Thus, excluding monetary compensation, six latent variables were finally retained namely working environment, training and development, welfare benefits, performance appraisal, disciplinary procedure, and career growth. This was done to ensure best fit. Additionally, 4 items were also retained for performance appraisal and welfare benefit. Also, 3 items were used to measure training and development.

The respective items for each construct are presented with their associated Cronbach's alpha, AVE, composite reliability and factor loadings. It could observe that the values of the CA and CR are above 0.7 thresholds whereas AVE is also above it thresholds value of 0.5. This confirms that generally, the information obtained is reliable.

Discriminant Analysis

The study further examined if the key constructs are independent and not liable to measure other phenomena. Discriminant validity was used to assess the extent to which constructs are distinct and uncorrelated (Peter, 1981). According to Shih (2004), a measure should relate more strongly with other measures of the same construct than with measures of other constructs.

Table 18: Discriminant Analysis (Intercorrelations) of variable constructs

Latent variables	CG	DP	ER	MC	PA	TD	WB	WE
Career growth (CG)	**(0.774)**							
Disciplinary procedure (DP)	0.732	**(0.826)**						
Employee retention (ER)	0.345	0.375	**(0.706)**					
Monetary Compensation (MC)	0.347	0.378	0.227	**(0.530)**				
Performance appraisal (PA)	0.721	0.678	0.338	0.439	**(0.864)**			
Training and development (TD)	0.530	0.451	0.309	0.545	0.546	**(0.825)**		
Welfare Benefit (WB)	0.554	0.459	0.163	0.627	0.534	0.656	**(0.826)**	
Working environment (WE)	0.387	0.459	0.464	0.589	0.441	0.547	0.554	**(0.671)**

Source: Field Survey Data, (2017)

Note: AVE values in the principal diagonal

Table 18 reports the results of testing the correlations between all constructs. The elements in the matrix diagonals represent the average variance extracted (AVE) of each underlying construct while off-diagonal elements represent the squares of inter-construct correlations (SIC). All diagonal estimates are larger than their corresponding squared correlations between constructs with the exception of one. That is correlations between monetary compensation and training and development, welfare benefit and working environment. The AVE of monetary compensation (0.530) is less than its squared correlation with training and development (0.545), welfare benefit (0.627) and working environment (0.589). Generally, these results show that the measured variables have more in common with the construct they are associated with than they do with the other

constructs. Hence, all the pairs of latent constructs show a strong evidence in support for the discriminant validity of our scales.

Table 19 presents statistics for model fit obtained for each construct after the performance of the confirmatory factor analysis. The saturated model assesses the correlation between all constructs whereas the estimated model is based on a total effect scheme and takes the model structure into account. Generally, it is shown that the items of each construct fit well; as all the fit statistics were strong (see Hair, Hult, Ringle & Sarstedt, 2017). For instance, the Standardized Root Mean Square Residual (SRMR) value of 0.089 indicates that the observed correlation and the model implied correlation matrix are well fitted. SRMR indicates the acceptable fit when it produces a value smaller than 0.10, but it can be interpreted as the indicator of good fit when it produces a value lower than 0.05 (Hu & Bentler, 1999; Schermelleh-Engel & Moosbrugger, 2003; Lacobucci, 2010; Kline, 2011).

The same conclusions could be made for the Normed Fit Index (NFI) value. Conventionally, NFI results in values fall between 0 and 1, the closer the value to 1, the better the fit. The NFI value of 0.661 in this study is an indication the model has a good fit and as such construct validity has been achieved. Therefore it is concluded that each item measures exactly what it was supposed to have measured.

Table 19: Model Fit

	Saturated Model	Estimated Model
SRMR	0.089	0.089
Chi-Square	836.015	836.015
NFI	0.661	0.661

Source: Field Survey Data, (2017)

Table 20: Regression Results

Variables	Original sample	Standard Deviation	P-values
Career growth	0.164	0.154	0.288
Disciplinary procedure	0.125	0.126	0.320
Performance appraisal	0.143	0.143	0.318
Training and development	0.094	0.131	0.473
Welfare benefit	-0.321	0.125	0.010
Working environment	0.368	0.091	0.000
R-square = 0.296			

Source: Field Survey Data, (2017)

We tested each of our hypotheses with the path coefficient and corresponding t-value. The empirical results as shown in table 20 revealed that of the six latent variables only two were statistically significant (i.e. welfare benefit and working environment) in influencing health professional retention. According to Torrington & Hall (1998), employee welfare is intended to make life worth living for workmen. On the contrary, the latent variable welfare benefit is a significant negative determinant of employee retention in this study. This was

achieved at 10 percent level. The negative coefficient indicates that current welfare policy being practised by GHS encourages health professional to leave the region. A plausible explanation for this finding is that the GHS might not have effective leave policy, recreational facilities and educational policy for staff and their dependants hence, leading to poor retention.

The latent variable working environment is a positive determinant of employee retention and this was significant at 1%. This result supports the hypothesis that good working environments have a positive effect on employee retention. The implication of the positive effect of working environment on employee retention is that health professional in the region believed that their retention is being influenced by factors such as provision of modern equipment, light workload and no burnout, proper infrastructure (like electricity, water, good roads, transport, and access to ICT) among others. Intuitively, an improved working environment is naturally expected to motivate workers by providing the needed serene environment for efficient work and therefore improve retention.

Interventions to Improve Retention of Health Professionals in the Upper West Region

The study examines interventions strategies adopted by other countries in the literature to improve retention of health professionals. This section presents these interventions strategies which respondents were asked to share their opinion on how they could improve retention of health professionals in Upper West Region. Four interventions factors namely educational, financial, regulatory

strategies and professional and personal support were analysed**.** Five-Point Likert scale anchors with strongly disagree to strongly agree were used to measure each interventions factors. The descriptive statistics are shown in Table 21.

Five statements measured educational intervention. The results reveal that 28.6% of the respondents were of the opinion that sending students with rural origin would improve retention of health professional in the region while 26.2% of the respondents had a neutral view. On the contrary, close to 16% of the respondent strongly disagree that sending students with rural origin would improve retention. Also, 29.4% had a neutral opinion with regard to sending students from underserved populations to the region will improve retention in the region. Whereas 34 of the respondent representing 27% were of the opinion that sending students with rural origin will improve retention of health professional in the region. But, 20 of the respondent representing 15.9% strongly disagree with this opinion. Besides, the majority of the respondents (54%) agree with the statement that emphasizing the importance of rural health issues to students to consider practising in underserved areas would improve retention of health professional in the Upper West Region, but 7.1% strongly disagree. With regards to the clinical rotation in a rural setting by medical students to consider rural practice as an intervention strategy to improve retention, the majority of the respondents representing 50% agreed, 4% strongly disagreed, and while 12.5% have a neutral opinion. Lastly, on educational intervention, 34.1% were of the opinion that posting students from schools located in rural areas to the region

would improve retention of health professional in the Upper West Region while 12.7% had a neutral opinion.

Under financial intervention, the majority of the respondents (53.2%) agreed with the opinion that linking undergraduate and postgraduate scholarship to future practice would improve retention of health professional in the Upper West Region. On the contrary, only 2.4% disagree that linking undergraduate and postgraduate scholarship to future practice in the region would improve retention in the region. Moreover, 45.2% of the respondents were of the opinion that providing an allowance to staff who accept postings to the region would improve retention of health professional in the Upper West Region, however, 7.1% strongly disagreed while 4.8% have a neutral.

Table 21: Interventions to Improve Retention of Health Professionals

Interventions to Improve Retention	Likert Scale Ratings				
Educational Intervention	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Sending students with rural origin to the region	20(15.9%)	27(21.9%)	33(26.2%)	36(28.6%)	10(7.9%)
Sending students from underserved populations to the region	20(15.9%)	32(25.4%)	37(29.4)	34(27%)	3(2.4%)
Emphasizing the importance of rural health issues to students to consider practising in underserved areas	9(7.1%)	14(11.1%)	16(12.7%)	68(54%)	19(15.1%)
Clinical rotation in a rural setting by medical students to consider rural practice	5(4%)	12(9.5%)	16(12.5%)	63(50%)	30(23.8%)
Students from schools located in rural areas should be posted to the region	20(15.9%)	30(23.8%)	16(12.7)	43(34.1%)	17(13.5%)
Financial Intervention					
Linking undergraduate and postgraduate scholarship to future practice in the region	3(2.4%)	11(8.7%)	7(5.6%)	67(53.2)	38(30.2)
Providing allowances to staff who accept postings to the region	9(7.1%)	5(4%)	6(4.8%)	57(45.2%)	49(38.9%)
Regulatory Strategy					
Qualified health professionals should perform compulsory community service in underserved areas like Upper West region	18(14.3%)	21(16.7%)	19(15.1%)	41(32.5%)	27(21.4%)
Health professionals should spend a minimum number of years in an underserved area before allowing them to specialize	13(10.3%)	18(14.3%)	13(10.3%)	55(43.7%)	27(21.4%)
Recruiting foreign doctors and limiting them to practice in underserved areas	27(21.4%)	27(21.4%)	27(21.4%)	35(27.8%)	10(7.9%)
Professional and Personal development					
Providing adequate professional support	6(4.8%)	12(9.5%)	6(4.8%)	53(42.1%)	49(38.9%)
Attending to the needs of practitioners family	9(7.1%)	19(15.1%)	10(7.9%)	59(46.8%)	29(23%)

Source: Field Survey Data, (2017)

On regulatory strategies, 32.5% of the respondents were of the view that asking qualified health professionals to perform compulsory community service in underserved areas such as Upper West region would improve retention of health professional in the region. However, 14.3% strongly disagreed on asking qualified health professionals to perform compulsory community service in underserved areas as a measure to improve retention of health professional in the region. Added to this, 43.7% of the respondents agree to the statement that asking health professionals to do mandatory service for some minimum number of years in an underserved area before allowing them to specialize would improve retention of health professional in the region. On the contrary, 10.3% strongly disagreed. Moreover, 27.8% of the respondent agreed with the opinion that recruiting foreign doctors and limiting them to practice in underserved areas would improve retention of health professional in the region while 21.4% strongly disagree.

On professional and personal development, 42.1% were of the opinion that providing adequate professional support will improve retention of health professional in the Upper West Region. Whereas 4.8% disagreed with this while 4.8% have a neutral opinion that providing adequate professional support will improve retention of health professional in the region. Additionally, 46.8% were of the view that attending to the needs of practitioner's family would improve retention of health professional in the Upper West Region while 7.1% strongly.

Interventions to Improve Retention in the Upper West Region

The responses of health professionals concerning their perceived interventions to improve retention in the region was analysed and presented in table 22. The Friedman rank test was employed to identify the most important interventions to improve retention in the region. Regulatory intervention (29.8%) was revealed to be the most important intervention that could improve retention in Upper West Region, followed by professional intervention (26.4%) as the next important intervention that could improve retention the Upper West Region.

Table 22: Intervention to Improve retention in the Upper West Region

Interventions to Improve Retentions	Mean Rank	Percentage (%)	Ranking
Educational Intervention	2.12	21.2	4
Financial Intervention	2.26	22.6	3
Regulatory Intervention	2.98	29.8	1
Professional Intervention	2.65	26.4	2
Number of Observation = 126			
Degrees of Freedom = 3			
Chi-square = 47.074			
Sig. level = 0.000			

Source: Field Survey Data, (2017)

Financial intervention and educational intervention assumed the less important and least important with a percentage of (22.6%) and (21.2%) respectively. This conforms to the findings of Dolea et al. (2009) who argued that

financial incentives and awards are neither the first nor the most important factor in the decision to leave or stay in a remote or rural area.

In spite of the fact that healthcare professionals in the region viewed regulatory intervention as the most important intervention to improve retention, Araújo and Maeda (2013) had suggested that evidence of the effectiveness of this measure is yet to be confirmed. Interestingly, the educational intervention was the least important measure, although evidence from countries such as China, Democratic Republic of Congo, Japan and USA has demonstrated the effectiveness of this strategy to improve retention of health workers in rural and other underserved areas (WHO, 2010; Dolea, Stormont & Braiche, 2010).

Chapter Summary

The chapter presented and discussed the results of the study. Estimations were done using SPSS and SmartPLS 3 statistical packages. The chapter started with a brief descriptive statistics on respondents demographic characteristics. The regression results revealed that of the six latent variables only two were statistically significant and these were welfare benefit and working environment. The Friedman rank test was used to identify the most important intervention measures to improve retention in the region. The results showed that regulatory intervention was the most important intervention measure, followed by professional intervention than financial intervention and with educational intervention assumed the least important.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter presents a summary of key findings of the study, conclusion and recommendations. These findings are in line with the objectives of the study which was to analyse the factors influencing of retention of health professional in the region in Upper West Region and examines the interventions to improve it.

Summary of Key Findings

The purpose of the study was to analyse the determinants of retention of health professional in the Upper West Region. The study specifically objective examines the interventions to improve retention of health workers. Multistage sampling technique was used to select 126 health professionals while a self-administered questionnaire was used to solicit information from the respondents.

Descriptive statistics results of the respondents revealed that majority of them were females (58.7%), yet there was no imbalance of gender representation. Again, it was generally observed that 92.9% of the respondents were between the ages of 21 and 40 years, hence making the data youth dominated.

Under employer retention factors the results showed that on the average, respondents were of moderate opinion regarding whether they often think of leaving the region, love their job and whether they would like to recommend the region to people of other regions. However, health professionals disagreed with

the opinion regarding whether they are job searching and whether they are hoping to retire in the region.

In analysing the determinants of retention of health professional in the region seven retention factors were considered namely monetary compensation, working environment, training and development, welfare benefits, performance appraisal, disciplinary procedure, and career growth. Surprisingly, health professionals in the region disagreed with the opinion that their retention is being influenced by monetary compensation. This means that health workers do not believe that their continuous stay in the region is being influenced by monetary compensation offered by Ghana Health Service.

There were mixed opinions regarding the effect of training and development on employee retention. This indicates that health professionals in the region do not agree on the training and development provided by Ghana Health Service as a means of retaining workers in the region.

On the career growth and retention the results revealed that on the average, respondents have a neutral view on the statements that their retention in the region is influenced by GHS supporting staff career growth on merit and experience, clearly defined career path and merit and experience based promotion and staff mentorship and coaching programs. However, they disagree with the statement that their retention is influenced by succession planning being practised in the organisation.

The regression results revealed that of the six latent variables only two were statistically significant and these were welfare benefits and working environment. For welfare benefits, descriptive statistics support its negative effect on retention as respondents disagreed on all welfare indicators as influencing their retention in the region. What this means is that there are inadequate welfare benefits at GHS as this is evidenced by the negative effect of welfare benefits on employee retention. This means that current welfare policy being practised by GHS does not encourage health professional to stay in the region.

The results further suggest that the latent variable working environment is a positive determinant of employee retention. The implication of the positive effect of working environment on employee retention is that health professionals in the region believed that their retention is being influenced by factors such as provision of modern equipment, light workload and no burnout, proper infrastructure (like electricity, water, good roads, transport, and access to ICT) among others. The study can conclude that in the area of working environment the GHS is able to motivate health workers by providing the needed serene environment for efficient work and thereby improve retention.

In the area of measures to improve retention in the region, the most important strategy was regulatory intervention. Measures such as the provision of bursaries/scholarships and allowances to staff who accept postings to the region could be effective in attracting and retaining of health workers in the region.

Conclusion

This study sought to understand the determinants of retention of health professional in Upper West Region. Using the structural equation modelling framework and Friedman Rank Test, two objectives were pursued; first, analyse the factors influencing retention of health professional in Upper West Region; and second, examine interventions or strategies that could improve retention of health professionals' in the Upper West Region.

The result of this study has contributed significantly towards the achievement of its set goals. The study has helped to establish that inadequate welfare benefits are one of the major reasons why health professionals do not want to stay in the region. By implication, current welfare policy of Ghana Health Service does not encourage retention of health professional in the region. Besides, the study revealed that working environment is a positive determinant of employee retention. The means that health professionals believed that their retention in the region is being influenced by factors such as the provision of modern equipment, light workload and no burnout, proper infrastructure (like electricity, water, good roads, transport, and access to ICT) among others. Therefore, the working environment provided by GHS is able to motivate health workers to stay in the region. Again, the Friedman rank test results revealed that the most important intervention measure to improve retention in the region is regulatory intervention.

Lastly, this study adds to the growing body of literature on the effects of attraction and retention factors on retention of the health professional. It is hoped that future studies will learn from and build upon this research to create a better understanding of the role and effects of attraction and retention factors in improving retention of health professional in Ghana.

Recommendations

From the results of this study, the following recommendations can be made: Firstly, recognising that working environment is a positive determinant of employee retention, the Ministry of Health should continuously provide a good and safe working environment (including provision of appropriate/modern equipment and supplies, supportive supervision and mentoring) in order to make health professionals posts professionally attractive and thereby increase attraction and retention of health workers into the region. Added to this, the government should improve living conditions of health workers and their families by investing in infrastructure and services (such as sanitation, electricity, telecommunications, schools, etc.), as these factors have a significant influence on a health professional's decision to locate to and remain in the region.

Besides, since welfare benefits affect retention negatively proper welfare benefits should be provided by GHS. A good welfare package may include proper leave policy, recreational facilities, housing units, transport facilities, canteens

services and other cash benefits. When these welfare benefits are instituted would go a long way to improve retention in the region.

Last but not least, since regulatory intervention was regarded as the most important strategy to attract and retain health professionals in the region, it is recommended that there should be the use of compulsory service requirements, bonding schemes, expanding the scope of practice of rural health workers, and subsidized education for return of service. All these would improve retention in health professionals in the region.

Suggestions for Future Research

The findings of this study suggest the need for further research. For instance, a similar study should be carried out in the Upper East and Northern Regions to find out the extent of conformity of findings.

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APPENDIX I: QUESTIONNAIRE FOR HEALTH PROFESSIONAL

I am a graduate student from the Department of Management Studies, University of Cape Coast. As part of my study, I am conducting a research on the topic: Assessing factors affecting attraction and retention of health professionals in the Upper West Region of Ghana. It is on the basis of this that I am soliciting relevant information that will support my study. The information that you will provide is purely for academic purposes and will be treated with high confidentiality and not for any other purpose.

Health facility……

Instructions: Answer each question with a tick or a short response where appropriate in the space provided.

SECTION A: BACKGROUND INFORMATION

1. What is your gender? Male [ ] Female [ ]
2. What is your age? …… years
3. From the age of 6 onwards, have you lived in a rural area for more than one year at a time? Yes [ ] No [ ]
4. Which of the following describe your marital status?

   Never married [ ] Married [ ] Divorced [ ] Widowed [ ]
5. What is your household size? ……
6. What is your religion? Christianity [ ] Islamic [ ] Traditional [ ] Others [ ]
7. Please were you brought up in Upper West Region? Yes [ ] No [ ]

8. If your answer to question 7 is No, in which region were you brought up (if not brought up in Ghana state country)……
9. Which of these describe the area you were brought up? Rural [ ] Urban [ ]
10. Which of these could best describe the area you had your professional education/training? Rural [ ] Urban [ ]

SECTION B: JOB CHARACTERISTIC

11. What category of staff are you? Medical Doctor [ ] Midwife [ ] General Nurses [ ] Pharmacists [ ] Laboratory Scientist [ ] others specify……..
12. How long have you been working with Ghana Health Service (GHS)? ..... years
13. How long have you been working in the Upper West Region? .....years
14. How were you posted to this region?

    Mandatory/Bonding [ ]National service [ ] To join spouse [ ]Voluntarily []
15. Are you willing to remain at post in this region? Yes [ ] No [ ]

Monetary Compensation Factors		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	My retention in the region is being influenced by the competitive salary the service offer					
2	Salaries offered by GHS is fair to my professional role and this has influenced my retention					
3	Housing and vehicles loans offered by GHS has influenced my retention in the service					
4	GHS provides adequate rewards for a good job done and this has influenced my retention					
5	Opportunities for holding a second job (private practice) has influenced my retention in the region					
Working Environment Factors						
1	GHS provides adequate modern equipment and this has influenced my retention					
2	Light workload and no burnout has influenced my retention					
3	Proper infrastructure (like electricity, water, good roads, transport, and access to ICT) in the region has influenced my retention					
4	Higher social recognition in the region, with more associated gifts, has influenced my retention					
5	Good working relationship with my colleagues has influenced my retention					
6	Good working relationship with my superiors has influenced my retention					
Training & Development Factors						
1	GHS supports for staff training and development is influencing my retention in the region					

2	My retention at GHS is being influenced by training opportunities being allocated fairly					
3	Training and development offered is relevant to my career is influencing my retention at GHS					
4	Training and development enhancing my performance has influenced my retention in the region					
5	Training and development based promotions at GHS is influencing my retention in service					
Welfare Benefits Factors						
1	Leave administration policy is influencing my retention in the region					
2	GHS cares for its employee's general welfare and this is influencing my retention in in the region					
3	My retention is being influenced by recreational facilities being provided to staff at GHS					
4	GHS education policy for staff and dependants is influencing my retention in the region					
Performance Appraisal Factors		**Strongly disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	My retention in the region is being influenced by performance targets being clearly stated to me					
2	Performance targets were set in consultation with my supervisor is influencing my retention					
3	Performance ratings being done fairly is influencing my retention in the region					
4	The performance appraisal review period is sufficient and this is influencing my retention in the region					

5	Performance appraisal results being used for my career growth is influencing my retention at GHS					
Disciplinary Procedure at GHS						
1	My retention in service is been influenced by a fair and just disciplinary procedure in the region					
2	Supervisors at GHS correcting staff at fault humanely is influencing my retention in service					
3	Disciplinary rules and regulations are clearly communicated to staff which has influenced my retention in the region					
4	Appeals are allowed on disciplinary decisions and this has influenced my retention					
5	My retention has been influenced by disciplinary actions being applied to all without favour					
Career Growth						
1	My retention in service has been influenced by GHS supporting staff career growth on merit and experience					
2	The career path for individuals is clearly defined at GHS which has influenced my retention in the region					
3	My retention in the region is influenced by promotions being based on merit and experience					
4	My retention in the region is influenced by staff mentorship and coaching programs which is in place					
5	Succession planning practice is influencing my retention in the region					

SECTION D: EMPLOYEE RETENTION

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I often think of leaving the region					
2	I am job searching					
3	I love my job in the region					
4	I am hoping to retire in the region					
5	I will recommend Upper West Region to people in other regions					

SECTION E: Interventions to Improve Retention in Upper West Region

Educational interventions		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	Sending students with rural origin to the region					
2	Sending students from "underserved" populations to the region					
3	Emphasizing the importance of rural health issues to students to consider practising in "underserved" areas					
4	Clinical rotation in a rural setting by medical students to consider rural practice					
5	Students from schools located in rural areas should be posted to the region					
Financial Interventions						
1	Undergraduate and postgraduate bursaries/scholarships should be linked to future practice in the region					
2	Providing allowances to staff					

	who accept postings to the region					
Regulatory Strategies						
1	Requiring that recently qualified health professionals perform compulsory community service in underserved areas like Upper West					
2	Requiring that health professionals spend a minimum number of years in an underserved area before allowing them to specialize					
3	Recruiting foreign doctors and limiting them to practice in underserved areas					
Professional & Personal Support						
1	Providing adequate professional support					
2	Attending to the needs of the practitioners family					

SECTION F: Ranking of Interventions to Improve Retention in Upper West Region

Please **rank** each of the following interventions that could improve retention in Upper West Region in order of importance on a scale of 1 to 4 with #1 being the most important and #4 being the least important.

Interventions	**Code (1 to 4)**
Educational interventions	
Financial interventions	
Regulatory strategies	
Professional & personal support	