ASSESSMENT OF THE FACTORS INFLUENCING SHORTAGE OF HEALTH CARE PROVIDERS IN RURAL AND REMOTE PUBLIC HEALTH FACILITIES IN MOROGORO REGION

ASSESSMENT OF THE FACTORS INFLUENCING SHORTAGE OF HEALTH CARE PROVIDERS IN RURAL AND REMOTE PUBLIC HEALTH FACILITIES IN MOROGORO REGION

By

Alexander Mwemfula

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CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled **Assessment of the Factors Influencing Shortage of Health care Providers in Rural and Remote Public Health Facilities in Morogoro Region** in partial fulfilment of the requirements for award of the degree of Master of Science in Human Resource Management of Mzumbe University.

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Dr. Kessy, Flora

Major Supervisor

_____

Internal Examiner

Accepted for the Board of

……..……

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DECLARATION

AND

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I, Alexander Mwemfula**,** declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other University for a similar or any other degree award.

Signature _____

Date_____

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ABSTRACT

Severe shortage of qualified health workers in rural and remote public health facilities in the workforce in many low income countries including Tanzania require the national health sector management to closely monitor and address issues related to the distribution of health workers across various types of health facilities. This dissertation discusses the factors influencing shortage of health care providers in rural public health facilities in Tanzania.

A Qualitative research design was used to elicit in depth information on health workers preferences for workplace. Data were obtained from 29 respondents who filled semi-structured questionnaires and 8 respondents who were indepthly interviewed. Respondents involved in this study were health care providers in cadres of Clinical Officers, Nurses and Laboratory Technicians and Members of District Council Health Management Team.

The study found out that there is a substantial shortage healthcare provider in Kilosa District. This shortage was associated with poor working environment, poor motivation strategies to attract health care providers to work in rural public health facilities, low job motivation, and low monetary compensations (allowances). Health workers acknowledged that they have hard working environment and they don't have enough time to rest because of overloaded tasks.

This study observed that decisions of health care providers to choose or not choosing to work in rural public health facilities among other things depends mainly on one's job satisfaction, motivation, career decisions, relationships with others and personal health. Job satisfaction of healthcare workers is also an essential part of ensuring high quality care and there is evidence of a positive correlation between job satisfaction and patient satisfaction

LIST OF ABBREVIATIONS

AMO	Assistant Medical Officers
CHMT	Council Health Management Team
DMO	District Medical Officer
FBO	Faith Based Organization
FGD	Focus Group Discussion
MCH	Maternal and Child Health
MDs	Medical Doctors
MDGs	Millennium Development Goals
MOHSW	Ministry of Health and Social Welfare
PHSDP	Primary Health Services Development Programme
PMTCT	Prevention of Mother to Child Transmission
RDT	Rapid Diagnostic Test
RNs	Registered Nurses
WHO	World Health Organization
PICT	Provider Initiative Counselling and Testing

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CHAPTER ONE
INTRODUCTION

1.1 Background to the Study

The global health care workforce consists of 59 million people, of whom 39 million are health service staff and 20 million are health management and support workers. African region has an average of 2.3 health care workers per 1,000 people, the lowest in the world. In contrast, the Americas have the highest density; 24.8 healthcare providers per 1,000 people. There are currently 57 countries with a critical shortage of health care providers, most of which are located in sub-Saharan Africa (Hongoro and Normand, 2006).

The same author noted that in some countries the shortage of health care providers is so severe that less than 50% of the required staff is available to service rural populations. This has resulted in many facilities being unable to provide required services, or at times care is provided by non-qualified staff. This situation seriously compromises the health of many communities, particularly the poor and marginalized.

Health worker shortage in sub-Saharan Africa derives from many causes, including past investment shortfalls in pre-service training, international migration, and career changes among health workers, premature retirement, morbidity and premature mortality. Yet the dynamics of entry into and exit from the health workforce in many of these countries remain poorly understood. (Kinfu et al., 2009)

The growing gap between the supply of health care professionals and the demand for their services is recognized as a key issue for health and development worldwide. The World Health Organization (WHO) reports a global shortage of 4.3 million health workers, including approximately 3 million health professionals. Many countries are affected by the shortage, and it has been identified as ‘human resource for health crisis.’ Thus, health human resources are now a high priority on the political agenda (WHO, 2000).

The health worker crisis is showing up in shortage of personnel, geographical imbalances in the availability of health workers, and weak productivity and performance at health facilities. Shortages are expected to increase sharply in coming years, primarily due to the huge personnel requirements for care and treatment of people living with HIV and AIDS. Governments authorities seem to have realized that the health worker crisis is a fact and that time has come do address the problem. There is however little evidence to guide policy makers in the choice between alternative strategies and actions that may reduce the problem (Mastad, 2006).

Speybroeck et al., (2006) argued that, there is increasing evidence that health worker shortages are interfering with efforts to achieve the internationally agreed-upon health-related development goals, including those contained in the Millennium Declaration and those of WHO's priority programmes .This health workforce crisis is severely hampering the ability of additional financial resources made available through new modalities such as debt alleviation or the Global Fund to Fight AIDS, Tuberculosis and Malaria to attain their goals.

The World health report of 2006 estimated a shortage of 2.3 million doctors, nurses and midwives to scale up the health workforce to the levels required to strengthen health systems and accelerate progress towards attaining the Millennium Development Goals (MDGs). An absolute health workforce shortage is experienced in 57 countries (Speybroeck et al., 2006)

In all countries the shortage of health professionals is more critical in rural areas. The geographical mal-distribution of health workers exacerbates existing inequalities of access to basic health care and, therefore, contributes to lower health outcomes for the rural poor. Although this issue is more acute for developing countries, developed countries face similar problems of staff shortages and unequal distribution across their territories. Various policies have been implemented in developed and developing countries to tackle these problems. Strategies involving direct financial incentives of one sort or another have constituted the majority of interventions (Rabinowitz et al., 2001).

WHO has stated that achieving the MDGs for health requires that at health facilities qualified health care providers are available, are well trained and perform adequately. However, there is a critical shortage of health care providers, especially in sub-Saharan Africa. This shortage is most severe in remote rural areas and urban slums, where health services are often provided by faith-based organizations. The scarcity of human resources results in competition over limited numbers of qualified staff between public, private and faith-based health care services (Adjei, 2009*).*

Presently, the crisis in human resources for health is particularly affecting public health facilities, due to their predominantly rural locations but also because increasingly they cannot compete with private and faith based services on issues of salaries and financial and non-financial incentive packages. The public sector meanwhile has been able to improve its remuneration packages using donor funds and debt relief. Additionally, competition has become more severe for both public and Faith Based Organization (FBO) services because of the growing demand for staff by international non-governmental organizations, who often can offer a much higher remuneration package and more favourable working conditions (Chopra et al., 2008).

In Tanzania, the health care workforce crisis has hampered the government's ability to meet its goals for improving the social and economic well-being of its population. Quality health services are a key component of comprehensive social services, yet the shortage of qualified health care personnel consistently restricts the efforts of the government to increase the quantity and quality of health services available throughout the country (MOHSW, 2007).

In 2007, the Ministry of Health and Social Welfare (MOHSW) launched the Primary Health Services Development Programme (PHSDP 2007-2017) in order to address the unsatisfactory performance of the health sector. The PHSDP set a goal of establishing a dispensary in each village and a health center in each ward by 2012. Meeting this goal will require a rapid increase in the number of health care workers to fill the existing staffing gaps within the health sector and appropriately staff these additional health faci

There is a numerous shortage of health care providers across all cardres and the shortage is more severe in remote and rural areas. The health sector in Tanzania is seriously under staffed and this affects service delivery to rural and remote public health facilities. Therefore there is a need to assess factors influencing shortage of health care providers in rural and remote areas in Tanzania.

1.2 Statement of the Problem

The quality and functionality of a health care delivery system depend on the availability of medical personnel and infrastructure to provide needed services. Rural communities generally have fewer physicians, nurses, specialists, and other health care workforce, and the large population size and scale makes the loss or shortage of health care providers likely to have far-reaching impacts (Chen et al., 2008).

The shortage of healthcare providers in rural communities remains an intractable problem that poses a serious challenge to equitable healthcare delivery. Both developed and developing countries report geographically shortage of healthcare professionals, favouring urban rather than rural communities (Lehmann, 2008).

MOHSW (2011) shows that there is a shortage of health care providers at all carders whereby the actual number of doctors needed is 1,031 but only 578 (56.1%) are available; 2,093 Assistant Medical Officers (AMO) are required while only 1527 (73%) are available. Required Dentists are 184 but only 65 (35.3%) are available.

Based on the current estimates, the percentage shortage of Doctors is 44.0%, AMO 27.0%, Dentists 64.7%, Dental Assistant 58.7%,Pharmacist 41.4%, Pharmacist technicians 56.9%, Clinicians 42.0%, Nurses 41.2%, MCH Aider 1.3%, Laboratory Technicians 37.1%, Radiologists 44.3%, and Health Officers 45.5%. Therefore this amount to an average shortage of 41.0 percent for all cadres.

Although there is a shortage of Human Resources for Health (HRH) at all levels (MOHSW, 2008), the shortage is more severe in the rural districts because the shortage is exacerbated by the expanded populations, HIV and AIDS pandemic and malaria, and poor working conditions which make providers reluctant to work there. In rural areas

where most of health centres and dispensaries are located there is a shortage of 7,008 (59%) for health centres and 20,996 (69%) for dispensaries. Therefore, basing on the Primary Health Services Development Plan 2007-2017 requirements which aims at having a dispensary in every village and at every Ward, there will be addition of 3,108 dispensaries, 2074 health centres and 19 district hospitals which will raise additional shortage of health care providers to 88,829 to districts and rural government Health Facilities.

MoHSW (2007) noted that despite the significant shortage of healthcare providers, the recruitment trend of the MoHSW from 2005/06 to 2007/08 financial year, the number of recruitment positions approved were 677 in 2005/06, 3,890 in 2006/07 and 6,437 in 2007/08 in all cadres which amount to only 12,004 number of positions in all cadres for rural and urban health facilities.

However, in order to create the pool of health care providers including primary health services development programe, there is a need to enrol over 19,955 students yearly for ten years as provided under the Human Resource for Health strategic Plan 2008-2013 in order to cover the shortage gap of 144,704 up to 2017 including primary health services development programme (URT, 200). Therefore this study intends to assess the factors influencing shortage of health care providers in rural and remote Public Health facilities in Tanzania.

1.3 Objectives of the Study

1.3.1 General Objective

To assess the factors influencing shortage of health care providers in rural and remote public health facilities in Tanzania.

Specific Objectives

1. To identify the factors that motivate health care providers choose where to work
2. To examine the effects of shortage of health care providers in rural and remote public healthcare facilities in Tanzania.
3. To identify strategies that may increase the attractiveness of rural postings for health care providers.

1.4. Research Questions

1. What are the factors motivating health care providers to choose a place to work?
2. What are the effects of shortage of health care providers in rural and remote areas in Tanzania?
3. What are the strategies that can be employed to attract health care providers to work in rural and remote areas?

1.5. Scope and Significance of the Study

This study assessed the current factors influencing shortage of health care providers in rural and remote public health facilities in Tanzania. It is widely known that there are health workforce shortages in Tanzania. These shortages vary in their intensity by health profession, specialist and geographical location (regional, rural and remote areas). In realizing this, this study was conducted at Morogoro rural and remote areas. In this study health care providers referred are Clinical officers and Nurses and Laboratory Technicians.

Given the critical role that health care professionals play in determining the efficiency, effectiveness and sustainability of health care systems, it is paramount to understand what motivates them and to what extent the community and the quality of health services is affected by shortage of health care providers in rural and remote public health facilities. According to Tzeng (2002), there is evidence of a positive correlation between shortage of health care providers and patient satisfaction.

The information obtained will be useful to the government, policy makers, Donors and other Health stake holders because it will make them to know (update their knowledge) on factors influencing shortage of health care providers in rural and remote public health facilities, strategies to overcome shortage of health care providers in rural and remote public health facilities and some notable effects associated with shortage of health care providers in Kilosa District. These findings will assist them to come up with some budgetary and policy arrangement in dealing with an issue of shortage of Health care providers in rural and other critical areas with severe shortage.

1.6 Organization of the Dissertation

The dissertation is organized in six chapters where by chapter one is provides the introduction to the research problem (study background), statement of the problem, research objectives, scope and significance of the study. Chapter two presents literature review, conceptual framework and various theories governing the study**.** Also various literatures providing about global shortage of health care providers, state of health and health work force in Tanzania (Human Resource gap), an overview of Health care providers in Tanzania were reviewed. Chapter three is about the methodology used in the study. In this chapter study area, study population, sample, sampling techniques, data collection and analysis techniques are presented. Chapter four provides the study findings which were then discussed critically in chapter five based on the study objectives .

Basic issues which are discussed in chapter four include factors that motivate Health Care providers to choose where to work, effects of shortage of Health care providers in Rural and remote public health facilities and strategies to attract Health care providers to work in Rural health facilities.. The last chapter (chapter six) presents the summary of the findings, conclusion and policy recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents various literatures relevant to the study including theoretical literature and empirical literature on the subject matter and the conceptual framework. The main objective of this chapter is to determine what has already been done related to the research problem. In this chapter various motivational theories provided by eminent scholars in motivational schools of thoughts were reviewed and the most relevant theory was adopted to support the study. Further, various studies conducted in the subject matter were also reviewed and the critical discussion was made regarding to the existing facts.

2.2 Theoretical Review

2.2.1 Overview

For the nature of this study various theories can be used to discuss the issues related to shortage of healthcare providers in rural and remote public health facilities. These theories are Maslow's theory of hierarchy of needs theory, Hertzberg's two-factor theory, expectancy theory and equity theory but the most relevant theory for this study is Hertzberg's two factor theory.

The content of these theories rests on indentifying the needs and motives that drive people. The theories emphasize the inner needs that drive people to act in a particular way in the work environment. These theories therefore suggest that management can determine and predict the needs of employees by observing their behaviour and needs in the working environment.

2.2.2 Maslow's Hierarchy of Needs Theory

Maslow's theory state that people's needs range from a basic to a high level. These needs are present within every human being in a hierarchy, namely physiological, safety and security, social, status and self-actualization needs.

Failure to satisfy one need may have an impact on the next level of need (Figure 2.1). Low order needs takes priority before the higher order needs are activated, so that needs are satisfied in sequence. According to this theory, people who are struggling to survive are less concerned about needs on the higher levels than people who have time and energy to be aware of higher level needs.

Figure 2. 1: Maslow's Hierarchy of Needs

Source: Prasad (2009).

Maslow's Hierarchy of Needs is based on the assumption that people are motivated by a series of five universal needs. These needs are ranked, according to the order in which they influence human behaviour, in hierarchical fashion.

Physiological needs are deemed to be the lowest- level needs. These needs include the need for food, oxygen, sex, and drink. So long as physiological needs are unsatisfied, they exist as a driving or motivating force in a person's life. A hungry person has a felt need. This felt need sets up both psychological and physical tensions that manifest themselves in overt behaviours directed at reducing those tensions (getting something to eat). Once the hunger is sated, the tension is reduced, and the need for food ceases to motivate.

At this point (assuming the needs for sex, drink, and other physiological requirements are also satisfied) the next higher order need becomes the motivating need. Thus, safety needs the needs for shelter and security becomes the motivators of human behaviour. Safety needs include a desire for security, stability, dependency, protection, freedom from fear and anxiety, and a need for structure, order, and law. In everyday life, we may see this as a need to be able to fall asleep at night, secure in the knowledge that we will awake alive and unharmed. In the workplace this needs translates into a need for at least a minimal degree of employment security; the knowledge that we cannot be fired on a whim and that appropriate levels of effort and productivity will ensure continued employment.

Social needs include the need for belongingness and love. Generally, as gregarious creatures, human have a need to belong. In the workplace, this need may be satisfied by an ability to interact with one's co-workers and perhaps to be able to work collaboratively with these colleagues. After social needs have been satisfied, ego and esteem needs become the motivating needs.

Esteem needs include the desire for self-respect, self-esteem, and the esteem of others. When focused externally, these needs also include the desire for reputation, prestige, status, fame, glory, dominance, recognition, attention, importance, and appreciation. The highest need in Maslow's hierarchy is that of self-actualization; the need for self-realization, continuous self-development, and the process of becoming all that a person is capable of becoming.

2.2.3 Expectancy Theory

This theory asserts that job satisfaction is based on people’s beliefs about the probability that their effort will lead to performance (expectancy) multiplied by the probability that performance leads to rewards (instrumentality) and the value of perceived rewards (valence).This theory is based on the belief that the amount of effort exerted on a job depends on the expected return and may result in increased pleasure or decreased displeasure, and that people may perform their job and be satisfied if they believe that their efforts will be rewarded.

The fundamental principle of expectancy theory is the understanding of individuals' goals and the linkages between effort and performance, performance and rewards, and rewards and individual goal satisfaction.

This theory recognizes that there is no universal principle that explains people's motivation and is regarded as a contingency model. Understanding what needs a person seeks to satisfy does not ensure that the individual perceives high performance as necessarily leading to the satisfaction of these needs.

2.2.4 Equity Theory

Daft and Noel (2001) argued that, equity theory is a process of job satisfaction that focuses on individuals' perceptions of how fairly they are treated compared to others. This implies that, if people perceive their treatment as less favourable than that of others with whom they compare themselves, they are likely to be less motivated to perform better. This theory therefore posits that people compare the ratio of their outputs to inputs with the ratio of outputs to inputs of others.

This theory emphasizes the comparison of existing conditions against some standard by using the relationship between two variables (inputs and outcomes). Inputs are what an individual contributes to an exchange, while outcomes represent what an individual obtains from an exchange. Equity theory suggests that individuals assign weights to various inputs and outcomes according to their own perception of relative importance.

2.2.5 Hertzberg's Two-Factor Theory

This study is governed by Hertzberg two factor theories developed in 1950. Hertzberg believed that the two dimensions of job satisfaction are dissatisfies (he called them "hygiene" issues) and satisfiers, also called motivators. His theory was that employees can be retained through minimizing dissatisfaction and maximizing satisfaction. Dissatisfies include factors such as administration, company policy, working conditions, supervision, relationships and salary. Satisfiers include the job, promotion, achievement, responsibility and recognition. Therefore as far as the issue of shortage of health care

providers in rural and remote Public Health Facilities in Tanzania is concern, this theory is relevant especially on the working environment.

2.2.5.1. Hygiene Factors

Hygiene factors are features of the job such as policies and practices, remuneration, benefits and working conditions. Improving these factors may decrease job dissatisfaction and thus increasing of motivators. Inadequate hygiene factors may lead to dissatisfaction, but at the same time adequate hygiene factors do not necessarily lead to job satisfaction or reduction of shortage of labours.

2.2.5.2. Motivators

Motivators include job content such as responsibility, self-esteem, growth and autonomy. These satisfy high order needs and can result in job satisfaction.

Granting employees more responsibility and creativity in their jobs is an example of a motivator which may encourage them to exert more effort and perform better and perhaps motivated to choose where to work.

2.3 Global Health Care Providers Shortage

As a preliminary matter, the World Health Organization (WHO) defines health workers as “all people whose main activities are aimed at enhancing health. Thus, WHO’s definition of health worker includes those providing direct health services, such as doctors, nurses, and pharmacists, but also encompasses those with a more indirect role in the delivery of healthcare, including cleaners, cooks, and financial officers. WHO estimates that 4,250,000 health workers are needed to fill a worldwide shortage of health workers and it has identified 57 countries, most of them in Africa and Asia, face a severe health workforce crisis (WHO, 2006).

The world is experiencing a serious human resource shortage in the health sector, which the World Health Assembly calls a crisis in health. The World Health Organization (WHO) estimates that 4.3 million more health workers are required to meet the health Millennium Development Goals (MDGs) a global compact to reduce child mortality, improve maternal health, and combat AIDS, malaria, and other diseases by 2015.

But even this alarmingly high figure significantly underestimates the global need for human resources because the WHO only accounts for shortages in 57 countries that miss the minimalist target of 2.28 doctors, nurses, and midwives per 1,000 in the population (Obrien and Gostin, 2011).

The same authors provide that, these 57 countries have critical shortages, but the WHO estimate does not take into account the shortages of health workers experienced in countries who provide services in excess of basic immunizations and childbirth attendance. The agency does not factor in the shortages that emerging and developed countries claim to be experiencing. Nor does it factor in the marked human resource disparities among countries and regions, which reveal that shortages in low-income countries are actually much worse.

The global human resource shortage is certainly much greater than 4.3 million health workers. And the shortage includes more than physicians and nurses extending to health workers across the spectrum, including pharmacists, dentists, laboratory technicians, emergency medical personnel, public health specialists, health sector management, and administrative staff. The human resource crisis affects developed and developing countries, but the global poor suffer disproportionately, not only because they have a much smaller workforce but also because their needs are so much greater. Of the 57 countries with critical shortages, 36 are in Africa. Africa has of the world's disease burden, but only 3% of the world's health workers and 1% of the economic resources (Kuehn, 2007).

WHO(2010) Observed, that the most affected countries are found in Sub Sahara Africa which include Chad, Burundi, Ethiopia, Tanzania, Somalia, Liberia, Malawi, Mozambique, Niger and sierra Lion where by Chad has a ratio of one doctor for every 20,000 people and just four hospital beds for every 10,000. However Chad has one of the worst health worker shortages in the world.

Many countries are bolstering their staff with community health workers but Chad has just 154 of these. The country requires 300 percent more health workers because of increased healthcare needs and a reduction in the medical workforce from HIV-related illness or death.

In Burundi there is just one doctor per 34,744 people and two nurses per 10,000. The government provides free maternal and child healthcare and free treatment and care for people living with HIV, but the country's lack of skilled health professionals has severely hampered this programme. The same author provides that Ethiopia as one of Africa's most populous nations has extremely short of doctors, with less than one doctor for every 36,407 people. Ethiopia's public health sector is losing as many as 26 percent of its physicians to private healthcare and to other countries. To cope, the Ethiopian government has rolled out a "health extension worker" programme, training an estimated 30,000 lay health workers to improve primary services in rural areas. Today, there is one health extension worker per 2,500 people.

Liberia has just 51 doctors where by fewer than half of all births are attended by a skilled health professional, and maternal mortality is very high, at 994 maternal deaths per 100,000 live births. NGOs such as Merlin are training midwives and community health workers to boost numbers, but the situation remains critical just like Sierra Leone which has a serious health worker gap, with about three doctors per 100,000 people. However Sierra Leone is using Cuban and Nigerian doctors to fill part of the personnel gap, but concerns remain that the limited health workforce will not cope with the burden of free healthcare for large sections of the population.

WHO (2006) observed, that in many poor countries the lack of health workers is a major factor in the deaths of large numbers of individuals who would survive if they had access to health care. The World Health Organization asserts that health workforce shortages have replaced system financing as the most serious obstacle to realizing the right to health within countries.

Certainly, health workforce capacity building should not be the sole focus of national and international efforts to improve health. There are numerous competing health agendas, including financing and universal coverage, as well as meeting basic survival needs, including food, clean water, sanitation and sewerage, vector control, and tobacco control. Yet most health services cannot be assured in the absence of trained health workers. There is little point, for example, in delivering containers of drugs and medical equipment to a country if there are no skilled professionals to deliver these goods to the people who need them.

Ruger and Kim (2006) argued that, the causes of the human resource shortages are multifaceted and complex, but not so complex that they cannot be understood and acted upon. The factors that produce health workforce shortages are not the same in all countries or in all parts of countries. In designing solutions, policymakers must take account of local causes and conditions. However, some factors are common across cultures, even if their local manifestation may vary. For example, in most countries with shortages, there is inadequate funding of health worker education and training. Some of the causes of local health workforce shortages are home grown due to inadequate planning and financing.

However, local shortages can also be caused or exacerbated by conditions in other countries. One country's domestic and foreign policies can significantly affect health worker shortages in other countries. These policy choices are often made without regard for the potential negative impacts on the health workforce in other countries. Governments may not intend to cause harm outside their borders, but public officials may either be unaware of the effects or simply too focused on domestic political concerns. Developed countries, for example, often rely significantly on foreign-trained health workers to staff their health systems. These developed countries do, or ought to, know that many workers come from countries that desperately need more health professionals themselves.

2.4 Overview of Health Care Providers in Tanzania

The Tanzanian Health system is composed of numerous health care providers offering care from the village level (dispensaries) up to the highest level of referral hospitals. The system is comprised of a range of providers of different ownership (public, faith-based and private).

Health services in Tanzania are provided at three levels; Primary, Secondary and Tertiary. Primary level services are delivered by dispensaries, health centers, and outreach clinics. The Secondary level, consisting of district Hospitals and faith-based (FBO) hospitals, mainly supports the primary level by providing surgical backup services, mostly for obstetric emergencies and general medical and paediatric inpatient care for common acute Conditions (IHI, 2010).

Munga and Mbilinyi (2008) argued that, the health system in Tanzania follows the pattern of government structures of leadership in the form of hierarchy. There are different levels of services. The system complies with a system of a pyramid on top of which there are central hospitals (for example 4 consultant hospitals), which are expensive as they are oriented to the international standards. Their function as referral hospitals is fulfilled with conditions and difficulties. They fail to fulfil this goal simply because of poor infrastructure of the country, poor roads and weak communication with the remote regions.

Health care is and always will be a labour-intensive sector. Certainly in a country like Tanzania, with a wide-spread population, delivering services to the population requires many health workers in health facilities, from dispensary level to tertiary hospital level. The health sector is understaffed. The total of staffing in the health sector stands at 35% of the actual need according to defined staffing norms. The available number of professional health workers in the public sector is 35,202 and deficit is 90,722. Shortages in the private sector, especially in Faith Based Organization (FBO) institutions are also immense (URT, 2008).

URT (2007) provides that, there is an enormous shortage of human resources for health across all cadres: clinicians, nurses, pharmaceutical technicians, laboratory technicians, radiographers, physiotherapists, health officers and health administration cadres. The shortage is more severe in rural districts. The high attrition rate is a threat and is compounded by HIV and AIDS epidemic. Recent Service Available shows that the country had 1,339 doctors including 455 in the private sector. This is equivalent to one doctor per 25,000 persons. This is far below World Health Organization recommended requirement ratio of 1:10,000. There is perceived need to review and improve current staffing norms to match increase burden of diseases, workload and growing population.

Mainland Tanzania offers health services at several levels within the country. These include referral hospitals, specialized hospitals, regional hospitals, district hospitals, health centres, and dispensaries. The lowest level of care is offered by dispensaries, each of which serves between 6000 and 10 000 people.

The health centre is the second highest level of care and caters for approximately 50 000 people within one administrative division. At a level above the health centres are district hospitals. The district level has a vital role in the provision of health services. The regional hospitals provide similar services to district hospitals but employ additional specialists who are not available at district level. The highest level of health care in the country can be found at referral and specialized hospitals (MOHSW, 2007).

Thus, one may argue that Public Health Facilities are the pillar for providing health services in Tanzania as they constitute 65% of total health facilities. Then with an increasing rate of shortage of health care providers in Tanzania health system, it makes sense to assess the factors influencing shortage of health care providers in Public Health Facilities in rural and remote areas as 80% of the Tanzanians are living in rural areas as provided in (URT, 2003).

2.5 The State of Health and the Health Workforce in Tanzania

Even in the context of Global shortage of skilled Health Workers, Tanzania stands out as a place of critical need. A nation of over 40 million people Tanzania is in the grip of Health Workforce crisis. It has just 5.2 clinical Health workers per 10,000 people, One fifth of the target ratio proposed by WHO.

Tanzania has a critical shortage of skilled health workers at all levels, which is compromising the ability of the health system to deliver quality health services to its people. This shortage is more pronounced in rural and hardship areas and among midlevel health workers such as nurses, clinicians, midwives, pharmaceutical and laboratory technicians, health officers and administrators. The shortage stems in large part from the Retrenchment Policy coupled with an employment freeze implemented from 1993 to 2005, which led to a sharp decline in the health workforce (URT, 2008).

It also continue to provide that during this period, 23,474 health staff graduated from different training institutions, yet only 16% was employed in the public sector. While the government is undertaking efforts to hire additional health workers, the net effect is marginal compared to existing shortages. Health staffing shortage across all cadres stands at 65% of the actual need within the public health system and 86% within the private health system. More specifically, Tanzania's health facilities require 125,824 health workers while the actual available number is 35,202. This indicates a deficit of 90,722 health professionals; 53,214 in the public sector and 37,508 in the private sector (not including the estimated attrition rate of 0.5% per year).

The TDHS (2010) estimated that, the maternal mortality ratio during the ten years period prior to the survey at 454 deaths per 100,000 live births, somewhat lower than the estimates in the 2004/05 Tanzania Demographic and Health Survey(578 maternal death per 100,000 births) and the 1996 Tanzania Demographic and Health Survey(529 maternal deaths per 1000,000 births).

For comparative purposes a study in International trends in maternal mortality estimated in Tanzania in 2008 to be higher at 790 deaths per 100,000 live births where by Tanzania was one of eleven countries that accounted for 65% of maternal deaths globally. This was also provided under poverty and Human Development Report 2011.

However URT (2011) provide that, there is a relationship between Maternal mortality and proportion of births attended by a skilled Health worker and deliveries at Health Facilities given the current shortage of health care providers, some deliveries at Health Facilities are likely to be attended by unskilled staff.

In 2010, skilled birth attendance was estimated at 50% up marginally from 47% in 2004/05 where by assisted delivery in urban areas by 2010 was 83% which relates to Delivery at Health Facility in the same year. In Rural areas assisted delivery by skilled Health workers including Doctor, assistant medical officer, clinical officer, clinical assistant, nurse/ midwife or Maternal and Child Health (MCH) Aide was 42% in 2010 the same as delivery at the facility.

MoHSW (2009) provide, that there are 8 referrals/specialized Hospitals in Tanzania which need 8546 health professionals and the available is 4477 which amount to shortage of 4069 (48%), the number of Regional hospitals is 21 which need 7,266 health professionals and the available number is only 2,481 with the shortage of 4,785 (66%). District Hospitals available are 95 which need 22,458 Health Professionals, available number is 7,364 and the shortage is 15,094 (67%), Health centres are 331 which need 11,916 health professionals ,available professionals are 4,904 and the shortage is 7,008 (59%).

However Available dispensaries are 303 which demand 30,380 health professionals, available professionals are 9,384 and the shortage is 20,996(69%). Furthermore, Tanzania's health workforce has declined even as its population soared. In 1994, as the public sector hiring freeze took effect, Tanzania had 67,600 health workers for 28.8 million people. By 2001 this ratio had fallen to 48,500 health workers for a population of

34.5million, and today, the country has roughly 25,000 health workers for more than 40 million people (MOHSW, 2008).

Sikika (2010) provide that, health care providers deployment at 2009 was 33% in urban Districts and 35% in rural districts where by the total request was 6559 health care providers in all cadres. Medical Doctors 47 deployment out of 119 requested, Assistant Medical officers 59 deployment out of286 requested, Clinical officers 420 deployment out of 1590 requested, Nursing officers208 Deployment out of 567 requested, Health officers 92 deployment out of 514 requested, Nurses 549deployment out of 1981requested, medical technicians 20 deployment out of 98 requested.

It was also argued that, the main factor impending the deployment of additional healthcare providers is the disappointing rate of staff reporting to their duty station. It is also reported that eight out of 15 cardres has shown a reporting rate below 80% especially alarming is the bias towards urban areas where by from the 328 graduates who were deployed to an urban duty station 305 persons (93%) reported but in rural areas only 26% of deployed graduates reported to the place of designation.

In Tanzania there is a shortage of Health care providers at all cardres, where by the current estimates as at (2011) shows that, actual number of doctors required is 1,031 where by only 578 (56.1%) are available, 2093 AMO are required while only 1,527 (73%) are available, Dentists required are 184 where by only 65 (35.3%) are available, Dental assistant required are 1,022 only 422 (41.3%) are available, Pharmacist required 220 and only 129 (58.6%) are available, Pharmacy technician required are 464 but only 200 (43.1%) are available, Clinicians required 9963 and only 5781 (58.0% are available, Nurses required 15753 and only 9268(58.8%) are available, MCH Aider required 866 and available number is 855(98.7%),

Laboratory required 733 only 461(62.95) are available, Radiology required 237 and available number is 132(55.7%),Health officers required 227 but only 1242(54.5%) are available (Table 2.1).

Table 2. 1: **Human Resource Gap**

CADRE	Required	Available	% of Available Staffs	% Human Resource Gap
Doctors	1031	578	56.1	44.0
AMO	2093	1527	73.0	27.0
Dentist	184	65	35.3	64.7
Dental assistant	1022	422	41.3	58.7
Pharmacist	220	129	58.6	41.4
Phar. Tech	464	200	43.1	56.9
Clinicians	9963	5781	58.0	42.0
Nurses	15753	9268	58.8	41.2
MCH Aider	866	855	98.7	1.3
Laboratory	733	461	62.9	37.1
Radiology	237	132	55.7	44.3
Health officer	2278	1242	54.5	45.5
Others	700	316	45.1	54.9
TOTAL	35544	20976	59.0	41.0

Source: URT (2011)

The Tanzanian public health sector is losing its workers to internal migration (from poorer, rural areas to richer, urban areas), migration from the public sector to the private sector and international migration, usually to wealthy, developed nations in the north. Non-financial incentives are one way of encouraging workers to remain in their posts.

In particular, Mastad (2006) has recommended, empowering employers with the necessary resources to attract workers, in the health sector in general and into rural districts in particular, may be a powerful deployment strategy that may also help to retain health workers once they are deployed. In this case, it's crucial to have the institutional and financial resources necessary to make the public service labour market attractive. The same author further argues that, in order to improve retention of health workers and, indirectly, address the problem of geographical imbalance in the

distribution of health workers, the government should use pull measures, such as providing incentive packages to health workers like hardship allowances and adequate (decent) housing, and push measures, such as implementing coercive instruments like bonding agreements, and influencing health workers' preferences for rural against urban life by letting them get used to a rural life.

Successful rural healthcare provider retention begins at the time of recruitment. There are many approaches to recruiting rural healthcare providers; key among these are recruitment of individuals who grew up or previously lived in rural areas, those who completed residency training in a rural area, participated in other rural training programs, then it is essential to set expectations early in the recruitment process in-place resources, on-call availability, and back-up and professional consultation). Identifying and understanding personal needs can be as important as meeting practice needs in retaining rural healthcare providers (Blake et al., 2012).

Attraction and retention of health workers in remote and rural areas are determined by many factors including financial incentive, career development opportunities, recognition and appreciation by managers, colleagues and communities. Various interventions have been implemented in many countries to improve attraction and retention of health workers.

The most commonly applied interventions are compulsory service programmes, and financial incentive, or a combination of both. However these interventions are not rigorously evaluated Some rural hospitals have successfully recruited health care professionals by explicitly providing them with paid time off each year to engage in international missionary work, hoping to attract those who are passionate about working with isolated population(Manzi et al., 2006).

Therefore one may argue that, not only that many health workers (and their partners) are reluctant to work in remote areas, but addressing this has not been a national priority (for any sector of the workforce). A growing and more visible urban population and problems have distracted policy formation from supporting rural areas and the current

utilization of the health workforce does not seem to reflect the Government intention to prioritize improvement of rural health services and to increase access to provincial health services. However there is no evidence whether or not government has succeeded in influencing health worker preferences for rural over urban posts. There is, however, limited evidence that the Ministry of Health and Social Welfare (MoHSW) has not yet effectively implemented these pull and the push measures to ensure the retention of health workers in the country in general, or in rural districts in particular.

2.6 The Conceptual Framework

This conceptual frame work illustrates that the shortage of health care providers in public health facilities in rural and remote area depends on the number of health care providers trained and whether these are deployed or not.

However motivating factors and hygiene factors may influence retention of health care providers if they are effectively provided and they might lead into Resignation as well if they are not there.

Pulling factors such as job expectations, allowances, working conditions, remunerations, benefits may lead into resignation or retention of health care providers if they are not in an appropriate ratio though retention is affected by death and retirement. Health care provider's deployment in Tanzania s depends on the request from the health facilities or regional hospitals to the Ministry of Health and Social welfare.

In this conceptual framework hygiene factors are features of the job such as policies and practices, remuneration, benefits and working conditions, corresponding to Maslow's lower order of needs. Improving these factors may decrease job dissatisfaction and thus increasing motivators. Inadequate hygiene factors may lead to dissatisfaction, but at the same time adequate hygiene factors do not necessarily lead to job satisfaction.

Hygiene factors need to be tacked first, and the motivators can follow. Organizations cannot afford to ignore hygiene factors as employees will be generally unhappy and thus likely to seek other opportunities.

However, there are ten hygiene factors which are also refered to as maintenance factors which include; company policies and administration , technical supervision, interpersonal relationship with supervisors, interpersonal relationship with peers, interpersonal relationship with subordinates, salary, job security, personal life, working conditions and status.

These factors are not intrinsic parts of the job but they are related to conditions under which the job is performed the fact which was also argued by Prasad (2009).

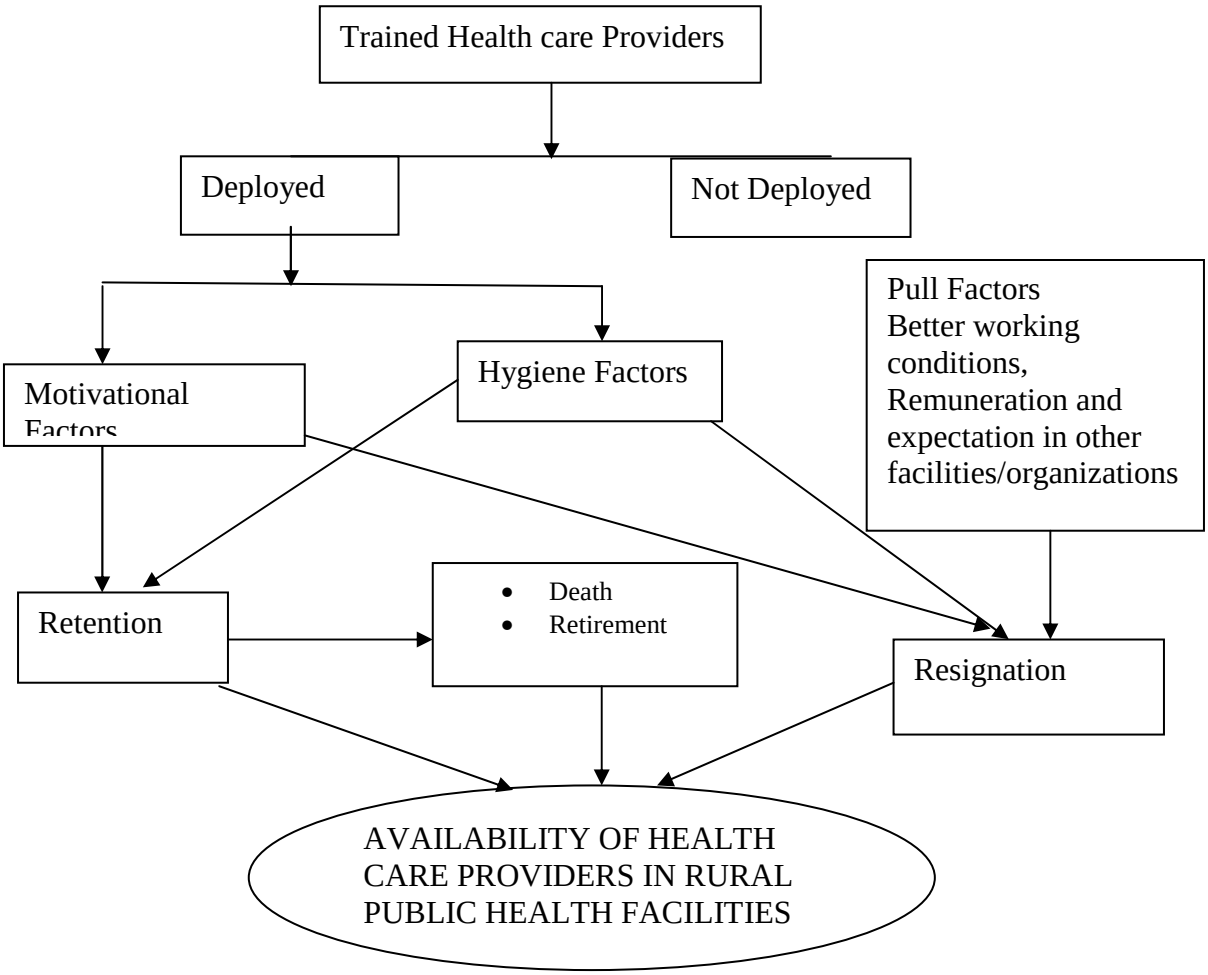
Motivators as referred in Herzberg two factor theories, include job content such as responsibility, self-esteem, growth and autonomy. These satisfy high order needs and can result in job satisfaction. Granting employees more responsibility and creativity in their jobs is an example of a motivator which may encourage them to exert more effort and perform better. Motivational factors are capable of having a positive effect on job satisfaction often resulting in an increase in ones total output. Herzberg includes six factors that motivate employees. Which include achievement, recognition, and advancement, work itself, possibility of growth, and responsibility and most of these factors are related with the job contents.

In this study it is very important to think about motivational factors because in recent times there has been a great challenge in the area of employee motivation in Tanzania including Health care providers. This challenge is due to rapid changes in the operating environment of almost all organizations. Workers would like to work at places where there are good motivational packages.

Motivation has engrossed the mind of most managers who are concerned with what should be done to achieve sustained high level of performance through people. Therefore, motivation is very significant in the achievement of every organization’s growth.

Retention of employees is an ideal in various employment sectors and it affects the number of service providers and the quality of those services as well. The Tanzanian public health sector is losing its workers to internal migration (from poorer, rural areas to richer, urban areas), migration from the public sector to the private sector and international migration, usually to wealthy, developed nations in the North. Non-financial incentives are one way of encouraging workers to remain in their posts. Examining health worker retention and migration issues calls for a broader and a more comprehensive perspective, not only considering push and pull factors, but also macro factors, such as the growing global economy and labour market. Figure 2.2 presents the conceptual framework for the study.

Figure 2. 2: Conceptual Framework on Factors Influencing Shortage of Health Care Providers in Rural Public Health Facilities



Source: Author's (2013)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Kamuzora and Adam (2008) define research methodology as the framework within which the research is undertaken. This chapter describes the methodology which was used in conducting this study on assessment of the factors influencing shortage of health care providers in rural and remote public health facilities in Morogoro Region particularly Kilosa District. It describes the type of study, study area, study population, sample size and sampling techniques, methods of data collection and methods of data analysis.

3.2 Type of the Study

This is exploratory study because it is based on generating new information related to factors influencing shortage of health care providers in public health facilities in rural and remote areas in Tanzania. Exploratory research aims at gaining familiarity with a study area that little is known about the subject matter. The researcher used this type of research because it is the most useful (and appropriate) research design for those researches that are addressing a subject about which there are high levels of uncertainty and ignorance about the subject, and when the problem is not very well understood (i.e. very little existing research on the subject matter). As less is known about why health workers would refuse to work in one rural area but accept to work in another rural area. Thus, context specific factors will be explored.

3.3 Study Area and Population

This study was conducted at Kilosa District in Morogoro Region at the division of Mikumi, Masanze and Kilosa Town division. Morogoro is located at latitude 60 49’S and longitude 37040’ E, approximately 200 km west of Dar es Salaam. It has a population of 228 863 people of whom 115,224 (50.35%) are females and 113 639 (49.65%) are males (NBS, 2005).

Kilosa is one of the six districts of the Morogoro Region in Tanzania and its administrative seat is the town of Kilosa. The District covers 14,918 square kilometres (5,760 sq mi). It is bordered to the north by the Manyara Region, to the northeast by the Tanga Region, to the east by Mvomero District, to the southeast by Morogoro Rural District, to the south by Kilombero District, to the southwest by the Iringa Region and to the west by the Dodoma Region. The district has 76 health facilities as follows; 2 hospitals (1 is private), 6 health centres (1 is private), and 68 dispensaries (27 are privately owned).

The targeted study population was health care providers in public health facilities involving nurses, laboratory technicians, and clinical officers. Kilosa district is appropriate area to conduct this study because it is among the districts facing the challenge of shortage of qualified Human Resource for Health (HRH) just like other Tanzania districts as this is a global crisis.

3.4 Sample and Sampling Technique

3.4.1 The Sample

The primary sample target was 50 respondents including 10 Clinical Officers, 15 Nurses, 15 Laboratory Technicians and 10 members of Council Health Management Team (which include District Medical Officer (DMO) and other competent members of the team. However, only 37 respondents were obtained which include 18 Nurses, 4 Laboratory Technicians and 7 Clinical Officers who filled the semi structured questionnaire where by 8 were members of Council Health Management Team (CHMT) who were indepthly interviewed during the study. These respondents were obtained from Kilosa District Hospital, Magomeni and mabwere bwere Dispensaries and Kidodi Health centre.

3.4.2 Sampling Techniques

Both Purposive and Simple random sampling were used in this study.

3.4.2.1 Purposive Sampling

This is a technique which involves the use of a subset of the population to represent the whole population. For the purposive of this study Clinical Officers, DMO and members

of Council Health Management Team were selected by using purposive sampling because they have key and very specific information which the researcher needed to explore. Purposive sampling can be very useful for situations where you need to reach a targeted sample quickly and where sampling for proportionality is not the main concern.

3.4.2.2 Simple Random Sampling

This technique was used to sample nurses and laboratory technicians. In this study this will be used because each individual will have a chance of being selected from the targeted population and entirely by chance such that have the same probability of being chosen at any stage during the sampling process. The researcher adopted this technique because it is unbiased technique. With simple random sampling, there would an equal chance (probability) that each respondent could be selected for inclusion in the sample. Table 3.1 presents the number of respondents per facility.

Table 3. 1: **Number of Respondents per Facility**

Name of Health Facility	Frequency	Percentage
Zombo Dispensary	6	20.7
Magomeni Dispensary	2	6.9
Mabwere bwere Dispensary	2	6.9
Kilosa district Hospital	11	37.9
Kidodi Health centre	8	27.6

Public health facilities involved in the study were Kilosa District Hospital, Kidodi health centre, Zombo dispensary, Magomeni Dispensary and Mabwere bwere dispensary located in Kilosa district at the divisions of Masanze, Mikumi and Kilosa town division (Table 3.1).

3.5 Methods of Data Collection

Methods of data collection in research include questionnaire, interview, observation and Focus Group Discussion (FGD). However this study used a semi structured questionnaire and interview (in-depth interview) in data collection from the respondents.

3.5.1 Semi Structured Questionnaire

This study employed semi structured questionnaire as a method of data collection. This is a data collection method which comprises a mixture of closed and open ended questions. This method of data collection allowed the researcher to accommodate large range of difference responses from the respondents. Also the use of semi structured questionnaire enables a collection of both qualitative and quantitative information.

Semi structured questionnaire was used to collect data from Nurses, Laboratory Technicians and Clinical Officers. Appendix 1 presents the questionnaire used in the study.

3.5.2 Interview

Interview method was used to collect data from Council Health Management Team. In-depth, qualitative interviews are useful tools of data collection because they use an open-ended, discovery-oriented method, which allows the researcher to deeply explore the respondent's feelings and perspectives on a subject. This results in rich background information that can shape further questions relevant to the topic. Appendix 2 presents an In-depth Interview guide which was used in the study.

3.6 Methods of Data Analysis

In this study qualitative data were analyzed through thematic analysis method. Thematic analysis is the method of data analysis which allows development of themes by creating the relationship between the variables. Therefore various themes were developed basing on the study objectives and the research questions and relationship existing between variables. However descriptive statistics such as frequencies and percentages presented in tables were used to present the quantitative data.

CHAPTER FOUR
PRESENTATION OF THE FINDINGS

4.1 Introduction

This chapter presents research findings for the study conducted to assess factors influencing shortage of health care providers in rural and remote public health facilities, the study which was conducted at Kilosa District in Morogoro Region. The objectives of the study were, to identify factors that motivate where health care providers choose to work, to examine the effects of shortage of health care providers in rural and remote public healthcare facilities in Kilosa and to identify strategies that may increase the attractiveness of rural postings for health care providers.

During the study the targeted sample was 50 respondents which include 10 Clinical officers, 15 Nurses, 15 Laboratory Technicians and 10 Members of District Health Council Management Team. However only a total of 37 respondents were obtained because *there was an extremely shortage of Laboratory technicians and clinical health officer*s as only 7 out of 10 Clinical officers targeted in the sample were obtained and 4 out of 15 targeted Laboratory technicians were obtained (see Table 3.1).

It should be noted that, frequency tables presenting findings with 29 respondents are based on semi structured questionnaire and those with 8 respondents are based on in-depth interview conducted during the study.

During the study 29 respondents were given semi structured questionnaires to fill and 8 respondents were indepthly interviewed.
Only public health facilities were involved in the studies which are Kilosa District Hospital, Kidodi Health Centre, Mabwere bwere Dispensary, Magomeni Dispensary and Zombo Dispensary.

Therefore the findings of this study are presented bellow with regards to information obtained from 29 respondents who filled Semi structured Questionnaires and those

obtained from 8 respondents who were indepthly interviewed which makes a total of 37 respondents.

4.2. Characteristics of Respondents

In this study characteristics of the respondents were based on gender, education level, number of years worked as health care provider and title of the respondents as presented in Table 4.1.

Table 4. 1: Characteristics of Respondents

S/n			Frequency	Percentage
1	**Title of respondents**	Nurses	18	62.1
		CO	7	24.1
		Laboratory Technicians	4	13.8
2	**Gender**	Male	6	20.7
		Female	23	79.3
3	**Education Level**	Primary School	8	27.6
		Form Four	6	20.7
		Certificate	4	13.8
		Diploma	4	13.8
		Degree	5	17.2
		Masters	2	6.9
4	**Work experience**	0 - 5 years	10	34.4
		6- 10 years	7	24.1
		11+ years	12	41.1

Source: Field Data (2013).

The findings noted that 23(79.3%) of respondents who filled the semi structured Questionnaire were female and 6(20.7%) of the respondents were male. However in terms of the title of the respondents who filled the semi structured questionnaire 18(62.1%) were Nurses, 7(24.1%) were Clinical officers and 4(13.8%) were Laboratory technicians as provided in Table 4.1. These findings substantiate that there is a high shortage of Laboratory technicians as well as to clinical officers.

However all female respondents who filled the questionnaire were married and their husbands has being either working in Kilosa for a long time or originated from Kilosa.

Cadres of health care providers in Tanzanian health sector are known and are well categorized in various schemes of service of the Ministry of Health and Social Welfare and in other policy frameworks. For the purpose of this study it was very important to ask the respondents about these cadres. The rationale for this was to identify carders which face extremely shortage of health care providers as it was revealed in the findings.

The issues of work experience has an influence on ones commitment towards his job and his activeness in responding for new paying jobs (new opportunities) in their fields of profession. Findings obtained from this study on the category of work experience provide that majority of respondents have a work experience ranging from one (1)year to ten(10)years with exceptional of only eleven (11) respondents who had more than fifteen (15) years of working as Health care providers in different Health facilities not necessarily in Kilosa District only.

Education level of the respondents who filled the semi structured questionnaire varies accordingly. The findings shows that 8(27.6%)respondents had a primary school education, 6(20.7%) holds a form four level of education, 4(13.8%) had certificate level of education, 4(13.8%) had a diploma level of education 5(17.2%) had a degree(not necessarily in health issues) and 2(6.9%)had masters level of education as presented in Table 4.1.

It should be noted that, those 8(27.6%) holding primary school level of education were previously working as health attendants but currently working as trained nurses as a results of continuous on job training, seminars and close supervision from the competent authorities available in the Kilosa District as to the standards of government and the Ministry of Health and Social Welfare.

However during the interview with District Council Health Management Team it was revealed that there is continuous training , seminars and supervision which are made by health partners who work closely with the Ministry of Health and social Welfare especially JHPIEGO, AMREF and USAID. During the interview one Council Health Management said that;

> *"...Trained nurses and health attendants working with rural health facilities are closely supervised by Council Health management Team in collaboration with health partners who work closely with the Ministry of Health in service delivery. Continuous trainings, seminars and supervisions to health attendants make them to be competent in service delivery…" (CHMT Member).*

4.3 Factors that Motivate Health care Providers to Choose Where to Work

4.3.1 Working Environment at the Facility

During this study working environment was measured through availability of working facilities, the number of health care providers available at the facility, number of health care providers needed at the facility, number of working hours per day, housing status of health care providers and on calls hours worked monthly. The study findings presented in Table 4.2 indicate that 26 (89.7%) of respondents mentioned that there is no any Medical Doctors in the facilities and only 3 (10.3%) mentioned that there is only one Medical Doctor is available. These findings show that Medical Doctors cadre is extremely few in number though the Human Resource Plan of the Ministry of Health and social Welfare does not provide that Medical Doctors are to be employed in primary health facilities especially dispensaries.

One respondent noted that the shortage of medical doctors in rural and remote area sometimes is associated with the government policies because they don't allow Medical Doctors to be employed at the lower levels of health facilities including dispensaries as quoted hereunder.

> "*The reality is that we need medical doctors in all levels of health facilities and it is very crucial to have them at lower levels especially in rural areas where there are complicated health cases which we used to refer them to District and Regional hospitals. Making referral is much cost full to the extent that family members cannot afford as they are ending up to death" (Clinical Officer).*

Therefore basing on that attitude that policies does not require Medical Doctors to be employed at the lower levels of health facilities, the findings of this study shows that 16(55.2%) of the respondents who were asked on the required number of Medical Doctors at their health facilities provided that no Medical doctors are needed and only 13(44.8%) provided that they need only 3 Medical Doctors especially at the Health Centres as provided in Table 4.2.

Assistant Medical Officers are health care providers who work independently or with limited supervision of a physician to provide healthcare services to largely underserved populations. In Tanzania the experience show that Qualified clinical officers with working experience of more than three years and who pass a government entrance examination undergo a further two-year training program to become Assistant Medical Officers. They can then enroll in another two-year program to specialize in anaesthesia, paediatrics, radiology or surgery.

There is enough evidence that AMOs are more likely to work in rural areas to perform various functions such as provision of diagnostic and case management services, performing emergency surgery and management of other complications referred by lower levels. It is assumed that training of Assistant Medical Officer Cadre will in the long term offset the shortage of medical doctors in the country. This cadre which is an upgrade of Clinical Officers in a two year training programme will to a large extent be able to perform the duties of medical doctors at the district and health centre levels. This evidence will be provided in discussion chapter.

However, during the interview with members of Council Health Management Team among other things, members were asked to describe physical environment of the health facilities available in the district including those which were not sampled in this study. The respondent roused the issues of lack of respects to the patients, poor infrastructures of most of the health facilities, deficiency of drugs and reagents and is some cases the respondents provided that some of the physical environments of health facilities are not friendly enough to allow especially in services PMTC services and PITC. (See Appendix iii)

In this study respondents were asked to provide the number of assistant Medical Officers available in their Health Facilities where by 15(51.7%) of the respondents provided that none is available and 14(48.3%) of the respondents provided that there is only one (1) assistant Medical Officer available as provided in Table 4.2.

However when Health care providers were responding on the issue of the required number of the assistant Medical Doctors at the facility the study findings reveal that, there is a variation in terms of the requirement where by 15(51.7%) noted that, none is required while 18 (62%) mentioned that only four (4) assistant medical doctors are needed at their Health facilities.

Furthermore during the interview with eight (8) members of Council Health Management Team (CHMT) it was noted that, Assistant Medical Doctors were specifically trained to assist Medical Doctors in performing emergency surgery and management of other complications referred by lower level facilities.
The respondents further argued that shortage of Assistant Medical Doctors among others things is due to low number of enrolment in collages which offer such a program as only few candidates opt for the same.

Shortage of clinical officers is severely in public Health facilities. The study findings indicate that, in the Health facilities involved in the study 27(93.1%) of the respondents who filled the questionnaire provide that only one Clinical officer is available at the Health facility while 2(6.9%) provide that no any Clinical officer is available.

During an in-depth Interview with eight (8) members of District Health Council Team the issue of severely shortage of Clinical Officers in Kilosa District Public Health facilities was roused though the committee mentioned some strategies which are implemented closely with the Ministry of Health and Social Walfare to revamp the problem.

Being disappointed with the situation of shortage of Clinical Officers in Kilosa District during the in-depth Interview one male member of District Health Council Team is quoted here bellow;

> "*There is shortage of Clinical Officers who are very important health care providers in rural and remote public health facilities and in some villages we are told that trained nurses are acting as Clinical Officers. It is a risk to the health of our fellow Tanzanians because Health issues are issues of its own nature" (CHMT member).*

This severe shortage of Clinical officers comes at the time when there is a Clinical Officers Training Centre in Kilosa District where this study has been conducted and other training centres of the same capacity are available in Kibaha, Lindi ,Mtwara, Mafinga, ,Masasi,Maswa, Songea, Sumbawanga, Mbeya,Mpanda and Tanga to mention only few.

In some developing countries including Tanzania, Clinical Officers were temporarily posted to alleviate the shortage of medical doctors. However, they have now become a more permanent strategy, being described as the “backbone” of healthcare in several settings. Clinical officers have a separate training programme to medical doctors, but their roles include many medical and surgical tasks usually carried out by doctors, such as anaesthesia, diagnosis and treatment of medical conditions, and prescribing especially in rural and remote areas.

The perceived benefits of using clinical officers compared with doctors are reduced training and employment costs as well as enhanced retention within the local health systems especially in District areas like Kilosa. However Clinical officers seemed to have a big workload as they are attending more than 50 patients, and in some cases they are working on call hours almost 45 hours a month basically at night when there are emergence cases. The study findings show that Health care providers in Kilosa District including Clinical officers work an average of more than 52 extra hours monthly excluding 45 ordinary working hours weekly as recommended by *The Employment and Labour Relations Act6, 2004.* During the study 25(86.2%) mentioned that they are working 40 extra hours weekly while 3(10.3%) mentioned that they are working 45extra hours weekly.

The required number of clinical officers in Health facilities varies from one health facility to another depending on the location and perhaps the population.
During the study 29 respondents who filled the semi structured questionnaire 25(86.2%) Mentioned that, the actual number of Clinical Officers required in their health facility is five (5) whereby 4(13.8%) respondents said that no any clinical officer is needed at the facility.

Furthermore, availability of Assistant Clinical officers was viewed as an ideal in all Health Facilities visited during the study where by 29(100%)respondents provided that there is no any assistant Clinical Officers available in their Health facilities. The same findings apply to availability and required number of nursing officers at the facilities.

Based on the current practice of the Health system in Tanzania, it is recognized that Trained Nurses are Healthcare workers who are often responsible for helping patients with basic functions such as dressing, bathing and eating. Trained nurses may also help patients in and out of bed, take them for walks, help them into wheelchairs and assist them with exercises. Other duties might include taking and recording vital signs, monitoring nutrition and hydration and reporting changes in patients' mental or physical condition to other members of the medical team.

The study findings indicate that, there is a shortage of Trained Nurses at the Health facilities where by the number of Trained Nurses in the facilities range from one (1) to three per facility. However when the respondents were asked to provide the required number of Trained Nurses per facility, it was noted that the required number range from one (1) to five (5) Trained Nurses per facility.

Respondents who filled the semi structured 17(58.6%) provided that only one (1) is required while 10(34.5%) respondents provide that only two (2) are needed and 2(6.9%) provided that five (5)Trained Nurses are required (See Appendix iii)

It should be noted that, Midwives are advanced practice registered nurses who has specialized education and training in both nursing and midwifery. They are working as primary healthcare providers for women and most often provide medical care for relatively healthy women, whose birth is considered uncomplicated and not "high risk," as well as their neonate. Often, women with high risk pregnancies can receive the benefits of midwifery care from a Certified Nurse Midwife in collaboration with a physician.

During the study the respondents were asked to mention both required Number of Mid wives and the available Number of Midwives whereby on the issue of available number of Midwives, the study findings shows that 11(37.9%) mentioned that there is no any midwife at the facility, other18 (62.1%) mentioned that there is only one (1) mid wife available at the facility.

However Trained Nurses involved in the study provided that being a mid wife is to be exposed to endless commitment. One Trained Nurse wrote the following statement in a semi structured questionnaire as quoted hereunder;

> "*On a daily basis, we have more than 3 women needing the services of midwives but we hardly cope. The skeleton staff that is here struggles, and we are sometimes forced to be on duty for 24 hours, with little time for rest" (Trained Nurse).*

On the required number of mid wives at the facilities 9(31.0%) mentioned that no any mid wife is required while 8(27.6%) mentioned that only one (1) Nurse mid wife is required and 12(41.4%) mentioned that two (2) mid wives are required.

Maternal health is very important in with health of women during pregnancy, childbirth, and the postpartum period. It encompasses the health care dimensions of family planning, preconception, prenatal, and postnatal care in order to reduce maternal morbidity and mortality.

The study findings showed that there is extremely shortage of Maternal and Child Health Aides in health facilities as 19(65.5%) respondents said that there is no any Maternal and Child Health Aides at the facility while 6(20.7%) said that only one (1) is available and 41(3.8%) said that only two (2) are available at the facility (Table 4.2).

Table 4. 2: Availability of Maternal and Child Health Aides

s/n	Item assessed	Responses	Frequency	Number of Maternal and child Health Aides per facility	Percentage
1	Availability of Maternal and Child Health Aides	Available	6	1	20.7
			4	2	13.8
		Not available	19	0	65.5
2	Required number of Maternal and Child Health Aides	Required	15	1	51.7
			7	2	24.1
			4	4	13.8
		Not required	3	0	10.3

Source: Field Data (2013).

In case of the required number of Maternal and Child Health Aides(MCH)in the facility the findings show that the required number varies from one(1)to four (4) whereby 15(51.7%) provided that only one(1)is required while 7(24.1%) provided that only two (2) are required and 4(13.8%) provided that four (4)are needed. However 3(10.3%) provided that there is no any Maternal and Child Health Aides are available.

Making decisions on where to work is not only an issue of availability of the post and perception rather there are some reasons which may influence an individual preferences. During the study it was noted that, some of the Health care providers are willing to work in rural and remote public health facilities. The study findings revealed that some health care providers are willing to work in rural and remote public health facilities because they can be involved in other economic activities including agriculture while other respondents mentioned issues of cheapness of life in rural areas as a reason which make them to feel working in rural and remote public health facilities (Table 4.3).

Table 4. 3: Reasons for Preference to Work in Rural and Remote Public Health Facilities

s/n	Reasons	Frequency	Percentage
1	I don't like to change working environment	5	17.2
2	Life in the village is simple, I can get other income rather than salary and I am working closely to the society	17	34.5
3	I like working in rural and remote public health facilities because there is low population compared to town	3	10.3
4	I like to work in villages especially here in Kilosa because I am also engaged to agricultural activities	3	10.3

Source: Field Data (2013)

4.3.2 Quality of Work Life Programs to Health Care Providers

The quality of work life programs focus on quality of relationship between employees and the total working environment. It is a process by which an organization responds to employee needs for developing mechanisms to allow them to share fully in making the decisions that design their lives at work. These programs related to the work environment, programs related to job facets, programs related to management, supervisory duties and responsibilities, and programs related to corporate policies dealing with employee pay and promotion. Quality of Work Life programs that promote non-work role identities and need satisfaction are grouped in three categories. The first is alternative work arrangements, the second is components of employee's compensation package, and the third is ancillary programs.

During the interview the respondents were asked to mention quality of work life programs available at the facilities. The study findings show that there is no substantial Quality of work life programs at the facilities. One respondent is quoted hereunder;

> "*There is no quality of work life programme at the facilities rather than our own informal social assistance programs especially during deaths. After all we can only access loans from National Microfinance Bank (NMB) though the bank have very high interest rates"(Laboratory Technician).*

However when the respondents were asked about the possible factors hindering health care providers to work in rural and remote public health facilities some reasons were provided including hardship of life, living environment are not friendly and over work load.

Furthermore respondents were asked to provide reasons which make health care providers to refuse to work in some rural public health facilities and accept to work in other rural health facilities. The findings provide that it is due to quality of living houses, and behaviours of the community members as some of them have harsh language to health care providers.

4.3.3 Expectations on Working Environment

During the study respondents were asked as to whether their expectations before recruitment were met. The study findings revealed that 25(89.3%) their expectations were not met as they expected completely different working environment where by only 3(10.7%) said that there is a match between their expectation before recruitment and the working environment (Table 4.4).

Table 4. 4: Views of Respondents about What they Dislike most about Working at the Facility

s/n	Views	Frequency	Percentage
1	I am underutilized because I am not working through my professional, I am working as administrator	4	13.8
2	Working environment is not standard; hospital buildings are too hot to work there in. There is shortage of drugs, and reagents for PMTCT	4	13.8
3	Buildings become very old, bad working environment, toilets for patients is not in a good condition, and there is shortage of reagents and drugs.	3	10.3
4	We don't have cleanness people, most of our time is used in cleaning the facility buildings, cleaners and watch men are not well paid.	3	10.3
5	Poor infrastructure, working environment and sometimes the society has harsh language.	3	10.3
6	There is no staff houses, infrastructures are poor and there is no bank services	3	10.3
7	No important things such as water and electricity	2	6.9
8	General security of the facility is very poor	3	10.3
9	Lack of cleaning equipments	3	10.3

Source: Field Data (2013).

Regarding to what the respondents dislike most about the Health facility, the respondents mentioned a divergent list of issues which they don't like at their health facilities which among other things include old buildings which does not support patients privacy especially in sensitive services like PMTCT, over working, lack of cleaning facilities, drugs, reagents and poor environment for childcare services.

The study findings provide that poor physical infrastructure is among the things which a health care provider doesn't like about their environment.

4.3.4 Availability of Working Gears at the Facility

Working facilities referred in this study were all material resources which health care providers need in performing their daily operational activities syringe, drugs availability, gloves, sterilizers, delivery set, reagents and others.

The visited public Health Facilities indicated that there is lack of equipment and unreliability of supplies. Shortages of equipment and supplies (including vaccines, antibiotics, reagents for Prevention of Mother to Child Transmission (PMTCT), Rapid Diagnostic Test (RDT) for malaria and other essentials) compounding poor quality of services at primary health-care facilities are repeatedly happening as argued by respondents. Irregular supply of essential drugs at all levels of the health delivery system leads to unnecessary referrals.

Table 4. 5: Effects Associated with Shortage of Working Gears at the Facility

S/N	Effects associated with shortage of Working gears	Frequency	Percentage
1	Working efficiency is low, Labour equipments are not available to the extent that patients opt for private Hospitals.	4	13.8
2	We don't work efficiently and we have long working hours	3	10.3
3	Sometimes patients have to undergo treatment at District Hospital	3	10.3
4	Poor Job efficiency	4	13.8
5	Lack of equipments such as drugs and reagents expose employees in a risk of death.	3	10.3
6	In general throughout the time then is shortage of working commodities so this make all aspect of the serving charts to be affected.	3	10.3
7	We are exposed to a risk of being exposed to communicable diseases especially during assisted delivery.	2	6.9

Source: Field Data (2013).

Problems with hygiene are regularly encountered, particularly in dispensaries and health centers where water supplies are often non-existent, erratic, and unsafe.

The study findings show that there is shortage of working gears as most of respondents who filled semi structured questionnaire 26(89.7%) mentioned that they are not provided with working gears needed in performance of their daily activities while only 2(6.9%) provided that they are provided with working facilities needed in performance of their daily tasks.

However respondents further provided that there are some effects associated with shortage of working gears at the facilities. Table 4.6 presents some effects associated with shortage of working gears at the facility.

During the study it was noted that, shortage of working equipments has an impact in service provision in Health Facilities. The study findings revealed that there are a number of effects associated with shortage of working gears which among other things might lead into spread of diseases, poor health services to the community, un reasonable referrals to the District hospital. However the study findings as provided in Table provide that the most common effects associated with lack of working gears at the health facility is low work efficiency and poor job performance.

4.3.5. General Job satisfaction

There is a relationship between Job satisfaction and working environment**.** In this study job satisfaction was measured through willingness of respondents to choose the same career when one is given an opportunity to choose the career again, relationship between job performance and income received by the respondents and on job personal growth.

During the study the relationship between income received and work performance was tested. The study findings provide that there is no relationship between incomes received and job performance.

The study findings revealed that majority of respondents see no any direct relationship between their income and job performance as 12(41.4%) disagreed with that relationship, 6(20.7%) strongly dis agreed while 10(34.5%) agreed that there is a match between their job and income received.

Generally the study findings show that almost all he Health care providers involved in the study like their job although there is challenging environment which affects their full commitment towards work. During the study 25(86.2%) strongly agreed that they would

made the same decisions if they are granted a chance to choose the career again while 3(10.3%)were simply agreed for the same (Table 4.6).

Table 4. 6: General Job Satisfaction of Health Care Providers

S/N	Item assessed	Responses	Frequency	Percentage
1	Willingness to choose the same career if one is given an opportunity to choose.	Strongly agree	25	86.2
		Agree	3	10.3
2	Relationship between Job performance and Income.	Agree	10	34.5
		Dis agree	12	41.4
		Strongly Disagree	6	20.7
6	On job Personal growth	Agree	15	51.7
		Dis agree	10	34.5
		Strongly Disagree	3	10.3
		Strongly agree	4	13.8

Source: Field Data (2013)

However impliedly those who provided that there is a match between income received and duties performed it might be due to some other factors controlling some one's income including education level and work experience because in Public Sector Scheme of service (for the best of my knowledge) they affect to some extent the amount of salary increment, allowances and other basic incentives.

It should be noted that, improvement of skills, knowledge and experience is very important pillar of any career including those of heath care providers. During the study the respondents were asked to rate the level of personal growth in their jobs. The study findings provide that there is almost a balance between those who agree and those who disagree on this matter.

The study findings provide that 15(51.7%) agreed that there is personal growth at work, 10(34.5%) provided that they dis agree while only 3(10.3%) strongly agreed that there is no personal growth at work.

Under labour economics perspective one among the distinctive characteristics which distinguish labour from other factors of production is flexibility, mobility and consciousness. Being aware of this perspective, the respondents were asked to provide as to whether they have an intention to change the career. The study findings show that there are few health care providers who want to change the career as 4(13.8%) strongly agreed that they need to change the career while 15(51.7%) dis agreed and 9(31%) strongly dis agreed.

4.3.6 Recognition of Health Care Providers in the Community

In rural and remote area including Kilosa District health care providers are respected hence enjoying the status of being health care providers. The study findings provide that 7(24.1%) strongly agreed to enjoy the status from the Community as being a Health care providers while 21(72.4%) also agreed to enjoy the status.

Furthermore, the study findings show that health care providers are often not recognized for the tasks which are well done though they are exerting a lot of efforts in their jobs.

During the study 3(10.3%) strongly agreed that they once recognized for the well done tasks, 9(31%) agreed for the same while 12(41.4%) dis agreed that they were not recognized for the well done tasks and 41(3.8%) strongly dis agreed.

On the issue of responsibility entrusted at work the study findings show that Health care providers in rural and remote areas are entrusted with great responsibility as 15(51.7%) agree that they are entrusted with great responsibility, 7(24.1%) strongly agreed to be entrusted with greet responsibility while only 6(20.7%) dis agreed on the issue .

About whether Health care providers have enough freedom to decide how to work, the study findings provide that they have enough freedom to decide how they have to perform their duties. The study finding show that 13(44.8%) strongly agreed on this fact, 11(37.9%) agreed and only 4(13.8%) strongly dis agreed.

Furthermore, the study findings revealed that some Health care provides spend more time in doing tasks which can be done by others with little experience and training as 14(48.3%) strongly agreed while 10(34.5%)and 4(13.8%) dis agreed as presented in Table 4.7.

Table 4. 7: Recognition and Job Performance of Health Care Providers

S/N	Item assesses	Responses	Frequency	Percentage
1	Enjoying the status in the community as a health care provider	Strongly agree	7	24.1
		Agree	21	72.4
2	Recognition for Tasks well done	Strongly agree	3	10.3
		Agree	9	31
		Dis agree	12	41.4
		Strongly dis agree	4	13.8
		Dis agree	10	34.5
		Strongly Disagree	3	10.3
		Strongly agree	4	13.8
	Great responsibility entrusted at work	Strongly agree	7	24.1
		Agree	15	51.7
		Dis agree	6	20.7
	Health care providers freedom to decide how to work	Strongly agree	13	44.8
		Agree	11	37.9
		strongly dis agree	4	13.8
	Time spent in doing tasks which can be done by others with less experience and Training	Strongly dis agree	14	48.3
		Dis agree	10	34.5
		Strongly dis agree	4	13.8

Source: Field Data (2013)

4.3.7 Opportunities for Further Training

Training is an essential component of Human capital skills development in organizations. However availability of opportunities for further training has an impact on individual's ability to perform and commitment to organizational tasks.

During the study the respondents were asked to provide as to whether there is relationship between Training and job performance. The study findings provide that 17(58.6%) strongly agreed on this matter, 8(27.6%) agreed and only 3(10.3%) strongly dis agreed. However during the interview with Council Health Management Team it was noted that, the district council has training policy which gives opportunity for further training to Health care providers and other employees of the district council in Kilosa.

Table 4. 8: Training and Performance of Health Care Providers in Kilosa District

S/N	Item assesses	Responses	Frequency	Percentage
1	Direct Relationship between Training and job performance	Strongly agree	17	58.6
		Agree	8	27.6
		Strongly dis agree	3	10.3
2	Training received in relations to satisfaction of Training needs of Health care providers	Dis agree	16	55.2
		Strongly dis agree	12	41.4
3	Fairness in opportunities for attending Training	Strongly agree	5	17.2
		Agree	6	20.7
		Dis agree	10	34.5
4	Contribution of Training in job performance of Health care providers	Strongly dis agree	7	24.1
		Strongly agree	12	41.4
		Agree	9	31
		Dis agree	4	13.8
		Strongly dis agree	3	10.3
5	Performance of Health care providers at the district level for last 5 years.	Agree	14	48.3
		Dis agree	11	37.9
		Strongly agree	3	10.3

Source: Field data 2013

During the study it was noted that, Trainings to health care providers is very sensitive for the purpose of the quality of health services. The study findings revealed that 16(55.2%) dis agreed while 12(41.4%) strongly dis agreed that their training needs were satisfied with the training received as provided in Table 4.8.

On the issue of equality in attending Training at the facility level, the study findings show that 51(7.2%) were strongly agree, 6(20.7%) were agree, 10[34.5%] were dis agree and 7(24.1%) were strongly dis agree. Furthermore during the study respondents were asked as to whether there is a relationship between training and job performance. The study findings provide that 12(41.4%) strongly agreed that training received has improved their job performance, 9(31%) agreed while 4(13.8%) dis agreed and 3(10.3%) strongly dis agree on this relationship. About the improvement of Health Sector performance at the district level for five year period, the study findings show that 14(48.3%) agreed, 11(37.9%) dis agreed while3 (10.3%) strongly dis agreed.

During the interview with Council Health Management Team Members (CHMT) it was noted that, Kilosa district council has a number of plans to ensure sustainable performance of health systems within the district though there is a challenge of budgetary deficit resulted from low budget of the Ministry of Health and Social Welfare. For example it was argued that there is an ongoing innovation of District Hospital infrastructures such as wards, fence, and staff houses.

4.3.8 Monetary Benefits

Incentives are important means of attracting, retaining, motivating, satisfying and improving the performance of employees. They can be applied to groups, organizations and individuals and may vary according to the type of employer. Incentives can be positive, negative (as in disincentives), financial or non financial, tangible or intangible. Financial incentives involve the transfer of monetary values, such as salaries, pensions, bonuses, allowances.

Non financial incentives include work autonomy, flexible hours and scheduling, recognition of work, coaching and mentoring structures, and support for career development.

The study findings noted that, Health care providers have pending un paid dues which of course discourage their willingness and full commitment in provision of quality health services. However this payment status may be referred to as among substantial barriers of quality health services provision in most of Public Health Facilities located in rural areas. When comes to the reasons for non-payment the common reason was budget deficit although it is too contradicting especially when it comes to the point that some of the respondent 4(13.8%) provided that they don't know the reasons because after all they have never been paid such kind of allowances (Table 4.9).

Table 4. 9: Monetary Benefits for Health Care Providers

S/N	Item assesses	Responses	Frequency	Percentage
1	Efforts exerted at work by Health care providers in relation to monetary benefits Received	Agree	5	17.2
		Dis agree	14	48.3
		Strongly dis agree	9	31
2	Level of satisfaction with monetary benefits Received	Agree	3	10.3
		Dis agree	12	41.4
		Strongly Dis agree	13	44.8
3	Monetary benefits received by Health care Providers at the District level compared to people of the same level(education, scale) in other Sectors	Dis agree	19	65.5
		Strongly dis agree	3	10.3
		Don't Know	6	20.7
3	Allowances received by Health care Providers in relation to their daily job Performance	Agree	3	10.3
		Dis agree	19	65.5
		Strongly dis agree	6	20.7

Source: Field Data (2013)

The findings of this study show that 9(31. %) respondents strongly disagreed about the relationship between monetary benefits received and efforts exerted at work, 14(48.8%) dis agreed while only 5(17.2%) agreed on this fact.

In making comparison between monetary benefits received by Health care providers and employees of the same level of education and salary scales in other sectors 19(65.5%) respondents dis agreed on the similarity, 3(10.3%) strongly disagreed and 6(27.1%) know not about this comparison as presented in Table 4.9.

However the relationship between allowances received and job performance is questionable as 3(10.3%) respondents agreed on the existence of the relationship, 19(65.5%) dis agreed while 6(20.7%) strongly dis agreed.

During the interview with Council Health Management Team (CHMT) members it was noted that payment of monetary benefits is a challenge and that members of council are aware about existence of pending dues of Health care providers though it was provided that the Ministry of Health was informed about these financial dues and that the payment is in pipeline for the coming financial year.

4.3.9 Decision Making

Decision making is not only procedural and substantive issue but also an issue of participation**.** During the study Health care providers were asked as to whether they are involved in decision making at the facility level. The study findings indicate noted that 13(44.8%) strongly agreed that they are involved in decision making, 12(41.4%) agreed while only 3(10.3%) strongly disagreed.

For the case of incentives provided to Health care providers when they are involved in decision making meetings , the study findings indicate that 3(10.3%) strongly dis agreed that they are paid during their attendance to decision making meetings, 13(44.8%)agreed while 12(41.4%) dis agreed.

As to whether the District Health Committee recognizes the efforts of health care providers, the study findings provide that 6(20.7%) strongly agreed, 15(51.7%) agreed, 3(10.3%) dis agreed while 4(13.8%) strongly dis agreed

Table 4. 10: Recognition of Efforts and Involvement of Health Care Providers in Decision Making

S/N	Item assesses	Responses	Frequency	Percentage
1	Involvement of Health care providers in decision making at the Facility.	Strongly agree	13	44.8
		Agree	12	41.4
		Dis agree	3	10.3
2	District Health Committee and recognition of efforts and performance of Health care Providers	Strongly agree	6	20.7
		Agree	15	51.7
		Dis agree	3	10.3
		Strongly disagree	4	13.8
3	Provision of incentives to Health care providers when involved in decision making Meetings	Strongly agree	3	10.3
		Agree	13	44.8
		Dis agree	12	41.4

Source: Field Data (2013)

During the interview with Council Health Management Team (CHMT) members it was noted that, the Council committees are making frequently outreach visits to various Health facilities in collaboration with district council Health, Water and education Committee (which involve politicians). These visits to the facilities are conducted among other things to evaluate the performance of Health care providers, to receive various operational reports and to identify various challenges in implementation of various Health objectives at the facility level.

4.3.10 Job Motivation

Motivation is a psychological feature that arouses an organism to act towards a desired goal and elicits, controls, and sustains certain goal-directed behaviours. It can be considered a driving force; a psychological one that compels or reinforces an action toward a desired goal. During the study respondents mentioned a number of factors which de-motivate them to be Health care providers in rural and remote and remote public health facilities.

Respondents who filled semi structured questionnaire mentioned a number of factors which de-motivated them to be health care providers. The most common reasons mentioned were that, they are completely discouraged with working environment because they are not favourable. For example shortage of working facilities like reagents and drugs, poor and old staff houses (for those who got one) poor infrastructure and lack of basic services which include bank and lack of monetary compensation especially for extra duties performed and outreach programs.

During the interview with Council Health Management Team (CHMT) Members it was noted that, Health care providers have very low level of motivation and that only few were happy with the environment. Furthermore the committee members said that some of health care providers are working in Kilosa district simply because they were posted to work there but they are not motivated with the environment. However lack of monetary incentives, Insecurity (especially for young female nurses who are frequently approached and disturbed by men especially during the night, witchcraft, and in some few cases they are not happy with language abuse provided by some community members.

However respondents were asked to explain as to whether if they are given chance to choose working between rural and urban Health facilities they will make the same decision or otherwise. The study findings show that 17(60.7%) who filled semi structured questionnaire mentioned that that they will continue to make the same decision while 11(39.3%) said that that they will not make the same decision. Those 17(60.7%) said that, that they will still make the same decisions, they were asked to provide reasons which makes them to prefer working in rural areas where by some reasons like cheapness of living costs in the rural areas, un willingness to change working environment were provided.

Respondents were asked to mention number of years (duration) which Health care providers are expecting to work in Kilosa public Health Facilities. The study findings show that respondents had a variation in terms of number of years planed to work at the health facility where by 3(10.3)provided that they plan to work just up the end of this

year,16(55.2%) provided that they will be working up to five years period,3(10.3%) provided that they need to work until they get retired, 2(6.9%) provided that they will work until when they will make decisions to go for further studies while 4(13.8%)didn't have any plan (Table 4.11).

Table 4. 11: Duration Planed by Respondents to Work in Rural Public Health Facilities

S/N	Duration	Frequency	Percentage
1	Up to the end of this year	3	10.3
2	Up to five years	16	55.2
3	Recognition for Tasks well done	3	10.3
4	Until I get retired	3	10.3
5	Once I decide to go for further training	2	6.9
6	I don't have any plan	4	13.8

Source: Field Data (2013)

During the study the rate of Labour turnover in rural and remote public Health Facilities was assessed. It should be noted that, labour turnover deals with of the number of employees that leave an organization through attrition, dismissal, or resignation during a period to the number of employees on payroll during the same period. Labour turnover is an important factor indicating the overall health of an industry or an establishment in terms of wages, industrial relations, working conditions and other welfare facilities provided by the employers to the workers.

The study findings show that only 10(35.7%) noted that there is labour turnover at the facility while 18(64.3%) noted that there is no Labour turn over at the facility. Those respondents who provided that there is labour were asked to provide reasons for Labour turnover at their health facilities where by the reasons for such turnover include poor working environment and shifting to private health facilities.

4.4 Effects of Shortage of Health Care Providers in Rural and Remote Public Health Facilities

4.4.1 Shortage of Health Care Providers at the Facility Level

This study revealed that there is a relationship between the number of health care providers available at the health facility and daily operations of the facility. The study findings show that 26(86.6%) respondents mentioned that, the number of health care providers available in the facility is not enough to perform daily operational activities of the health facility as shown in Table 4.12.

Table 4. 12: Shortage of Health Care Providers at the Facility Level

s/n	Carders with shortage	Frequency	Percentage
1	Nurses	3	10.3
2	Midwives and Clinical officers	10	34.5
3	MCH,AMO,Midwives and MD	3	10.3
4	CO,PHWC,Nurses and Medical attendants	4	13.8
5	CO and EN	3	10.3
6	All	3	10

Source: Field Data (2013)

The study findings presented in Table 4.14(appendix iii) indicate that severely shortage is on midwives, Clinical officers and Nurses as these are the cadres which were frequently mentioned by the respondents from different health facilities. During the study the respondents mentioned a number of effects associated with shortage of Health care Providers in Kilosa District Public Health facilities which include Patients left and seek for service from Private Health service Providers, Nurses works as doctors, Minimum work efficiency. However the most mentioned effects are long working hours, Overwork, Death of patients, and Lack of essential services as provided. Respondents who filled semi structured questionnaire 7(24.1%) mentioned that they have long working hours, 3(10.3%) mentioned that Patients left and seek for service from Private Health service Providers, 7(24.1%) mentioned Overwork, Death, Lack of essential services,3(10.3%)Nurses works as a doctors, while 8(27.5%) mentioned Minimum work efficiency.

An in-depth interview with Council Health Management Team(CHMT) members came out with a list of possible effects associated with shortage of Health care Providers in rural and remote Public Health facilities including Kilosa District where this study have been conducted.

During the Interview with Council Health Management Team (CHMT)members, some effects associated with shortage of Health care providers were mentioned which include; Health service report is not reaching people on time, Society does not receive information concerning different diseases and Patient is not getting service as required. Other effects include patients staying in the health centres for quite long time without service; Society does not get service on time, deaths and a lot of job to health workers as some health centres has only one worker. Sometimes the work load is very big to them, some health centres has only one worker so the work load is very big to them the diagnosis is attended and in some cases drugs are not properly available which cause much suffering to the community members.

It should be noted that , though the respondents provided mentioned a list of effects associated with shortage of Health care providers both during the interview with Council Health Management Team(CHMT) and those who filled semi structured questionnaires, yet these effects are not universal as they may vary depending on the magnitude of the problem, location and population.

5 Strategies to Attract Health Providers to Work in Rural Health Facilities

Attracting health care providers to work in rural and remote public health facilities is not only a policy issue but also an issue of strategy. Having noted the shortage of health care providers in rural and remote public health facilities, respondents were asked to mention strategies which will work out in order to attract health care providers to work in rural and remote public health facilities. These are summarized in Table 4.14.

Those who provided that there are efforts made were told to mention those efforts where by 11(37.9%) mentioned that top management are making plans and policies and they are providing incentives for health care providers while 12(41.3%) mentioned that there is slightly improvements of infrastructures and working conditions and 6(20.6%) mentioned that there is slightly improvement in flowing of information compared to the past years.

Table 4. 13: Proposed Strategies to Attract Health Care Providers to Rural and Remote Public Health Facilities

S/N	Proposed Strategy	Frequency	Percentage
1	Those who work in the village should be provided with incentives, improving working environment	4	13.8
2	Security should be improved at every facility.	3	10.3
3	Basic services should be improved. We live in poor working environment and we don't get basic services	2	6.9
4	There should be opportunities to attend higher education and the priority should be given for those who work in rural and remote public Health facility.	3	10.3
5	Improve working environment as well as providing enough working tools	6	20.7
	Improve services, provide incentives and increase salaries, staff houses and payments of over time	3	10.3
	Improve infrastructures, working conditions and education to staff	4	13.8
	Government to improve infrastructures	3	10.3

Source: Field Data (2013)

On the role of the government in attracting Health care Providers to work in rural public health facilities , the study findings show that 12(42.9%) agreed that the government is making some efforts to attract health care providers to work in rural health facilities while 16(57.1%)said that there is no much efforts made.

CHAPTER FIVE

DISSCUSSION OF THE FINDINGS

5.1 Introduction

This chapter discusses the findings obtained from the field as presented in chapter four. Respondents reported a number of factors influencing shortage of health care providers in rural and remote public health facilities in Kilosa District which include poor working environment, low satisfaction with salaries and allowances, not been involved in decision making, doing a lot of clinical tasks and not having sufficient time to rest.

The discussion of findings obtained in this study is governed by the study objectives which were, to identify factors that motivate where health care providers choose to work, to examine the effects of shortage of health care providers in rural and remote public healthcare facilities in Kilosa and to identify strategies that may increase the attractiveness of rural postings for health care providers.

This study is governed by Hertzberg two factor theories developed in 1950. Hertzberg believed that the two dimensions of job satisfaction are dissatisfies (he called them "hygiene" issues) and satisfiers, also called motivators. His theory was that employees can be retained through minimizing dissatisfaction and maximizing satisfaction.

Employees' needs and motivators vary so it is important to understand what motivates them to perform. In this study factors such as the opportunity to develop, responsibility were seen to have a significant influence on job satisfaction and they determine the decisions of health care providers to choose where to work. Therefore these findings are in line with the two-factor theory proposed by Herzberg and Mausner (1950), which recognize them as motivators i.e. responsibility, achievement, recognition and opportunities to develop.

Reasons for dissatisfaction in this study were also found to be in line with the hygiene factors responsible for job dissatisfaction, which include low salaries, quality of supervision and poor working conditions as provided in the conceptual framework.

5.2 Factors Influencing Retention of Health Workers in the Rural Areas

5.2.1 Working environment

Working environment affects an employee's performance and his attitude towards work. This study revealed that most of public health facilities have old buildings which have no continuous maintenance and in some cases there is no even toilets for both health staff and the community members who need to utilize the service. Although health care financing is progressive issue in Tanzania there is an increasing rate of shortage of basic working facilities to provide various health care services such as Prevention of Mother to Child Transmission (PMTCT), Maternal and Child Health (MCH), Provider Initiative Testing and Counselling (PICT) and Rapid Diagnostic Tests (RDT) for malaria due to shortage of reagents, delivery set, scissors, sterilizing equipments, boots, cleaning equipments and drugs.

Similarly, the study conducted by Chen et al., (2004) on shortage of health care providers in South Africa noted factors influencing the health worker shortage and poor health situation in Africa include undesirable work environments as it is a major impediment to appropriate service delivery. However global skill imbalances, poor distribution of health workers in public health facilities are other key impediments to appropriate service delivery in various public health facilities in Africa.

Physical environment of the healthcare workplace, along with other factors such as culture and work processes, also impacts the health and safety of the healthcare workforce. According to Peter (2001), who conducted a survey on registered nurses, the primary reason why nurses leave healthcare other than for retirement is to find a job that is less stressful and physically demanding. In a survey of nurses conducted by the American Nurses Association (2001), 76 percent of the nurses stated that unsafe working conditions interfered with their ability to provide quality care.

5.2.2 Job Motivation and Incentives

Job motivation is a psychological issue. The study findings show that health care providers in rural and remote public health facilities have low level of job motivation

because some issues mentioned as motivators are essential rights and part of their basic requirement at work.

During the study respondents mentioned a number of factors which de-motivate them to be Health care providers in rural and remote and remote public health facilities. Respondents who filled semi structured questionnaire mentioned a number of factors which de-motivated them to be health care providers. The most common reasons mentioned were that, they are completely discouraged with working environment because they are not favourable. For example shortage of working facilities like reagents and drugs, poor and old staff houses (for those who got one) poor infrastructure and lack of basic services which include bank and lack of monetary compensation especially for extra duties performed and outreach programs.

During the interview with Council Health Management Team (CHMT) Members it was noted that, Health care providers have very low level of motivation and that only few were happy with the environment. Furthermore the committee members said that some of health care providers are working in Kilosa district simply because they were posted to work there but they are not motivated with the environment. However lack of monetary incentives, Insecurity (especially for young female nurses who are frequently approached and disturbed by men especially during the night, witchcraft, and in some few cases they are not happy with language abuse provided by some community members.

In order to solve the human resources for health crisis in Africa and improve health care quality, health workers need to be motivated and performance approaches can achieve important efficiency changes.

Yet, while theoretically most of health systems provide the appropriate institutional setting, (Appropriate institutional setting Means, Institutional Frame Work. This means there is well established system (frame work) which include organs and policies governing how grievances, complaints, Rewards and other basic claims of health care providers should be dealt with) demonstrated that the reality is far more complex.

Motivational theories suggest that if performance approaches are based on financial incentives these can produce adverse effects, crowd-out intrinsic motivation and provide incentives for gaming and multitasking, which has been shown to be particularly problematic in resource poor settings as provided by Hussami (2008).

Therefore basing on the study findings, it should be understood that health care providers working in rural and remote public health facilities in Tanzania particularly Kilosa District are poorly rewarded for extra work and that they are working under difficult conditions. This means that there is no right balance in creating institutional arrangements that target both intrinsic and extrinsic motivation as required.

The study findings noted that, monetary incentives basically allowances in lieu to daily performance is a problem as it was mentioned by 67.9% of the respondents disagreed with the statement on whether they are paid allowances reflecting their daily performance. These findings reflects the philosophy behind the Expectancy Theory which asserts that job satisfaction is based on people's beliefs about the probability that effort will lead to performance (expectancy) multiplied by the probability that performance leads to rewards (instrumentality) and the value of perceived rewards (valence) which was also provided in the conceptual frame work for this study as provided by Pillay (2008).

Therefore the amount of effort exerted on a job depends on the expected return and may result in increased pleasure or decreased displeasure, and that people may perform their job and be satisfied if they believe that their efforts will be rewarded, perhaps through a job promotion. This means that perhaps health care providers working in rural and remote public health facilities would have been motivated to work and being retained in rural health facilities if financial incentives received would have reflected their efforts exerted at work.

5.2.3 Opportunities for Further Training

Career opportunities allow individuals the prospect of developing their careers further. A number of studies have shown that career development significantly reduces turnover,

and effective strategies for motivation and retention ought to be based on creating a stimulating and challenging environment. During the study respondents have provided that opportunities for further training is a policy issue and they are available but the issue is that one cannot afford the costs of training because the sponsorship is on an individual basis (private sponsorship).

A total of 16 (51.7%) disagreed with the statement that their training needs were met while 12 (42.9%) strongly disagreed. This implies that there is a default on the category of further opportunities for health care providers in rural and remote public health facilities which is contrary to the goals of Human Resource Policy Guidelines (2005) as provided by Ministry of Health and Social Welfare (2009) which state that,

> …"*Human Resource Policy major goal is to have a well-planned, trained deployed and motivated workforce*".

Almost the similar findings were reported by the study conducted by Campbell and Ebuehi (2011) in Nigeria, on attraction and retention of qualified health workers which indicated that lack of opportunities for further training to health care providers is among the factors influencing shortage of health care providers in Nigeria.

The study showed that factors that hinder attraction of health care providers to work in rural areas included opportunities for career development, availability of equipment, flexible working hours (the ability to adjust their compulsory daily 8 hours work time according to the facility workload), rural allowance, staff relationship, safety and availability of good schools for children. However, some (mostly rural) respondents cited instances of having to recall those off duty to work when the workload was heavy, and having to send some workers off duty when the patient load was light.

Stewart et al. (2006), in the study on globalization and health care providers cricis identified lack of training as a result of limited financial resources to be a factor for shortage of health care providers. The study noted that developing countries have long experienced chronic shortages of healthcare professionals. These shortages are usually rooted in a lack of resources that prevents the training or retraining of sufficient numbers

of nurses, physicians, or other healthcare professionals. However, in recent years, a number of demographic and societal changes have combined to create significant and long-term shortages in both developed and developing countries. There is an almost universal shortage of Registered Nurses (RNs), caused by increased demand in the face of a declining supply. Many countries also face significant shortages of Medical Doctors (MDs).

Therefore this implies that, to appreciate the requirements of rural training, it is necessary to understand rural communities, their health service needs and the nature of rural practice. There are a series of key parameters that provide the framework which determines the structure and function of rural health services, how rural practitioners work and the nature of rural practice. These parameters or "rural realities" are: geography and demography; the rural culture; rural morbidity and mortality patterns; resource limitations; and workforce shortages.

5.3 Effects of Shortage of Health Providers

There are current and projected shortages in many health professions, from nursing to pharmacy to laboratory technology. Factors that contribute to these shortages are varied and complex. Some of the contributing factors include the state of the economy; decreased interest and enrolments in the health professions during the 1990s; limited capacity in the education system to increase supply quickly; the aging of the general population and the health professional workforce; and technological advancements that contribute to the demand for services and, thus, for workers. It should be noted that this substantial shortage has significant effects.

URT (2007) observed that, Morogoro region was among the regions in Tanzania with high infants, maternal, and under five mortality rates. It was observed that Kilombero District had153 deaths per1000 in 2005 compared to 128 in 2001, Ulanga district had 150 deaths per 1000 compared to 115 in 2001, Kilosa district had 190 deaths per 1000 in 2005 compared to112 in 2001.

These rates of infants, Maternal and under five were associated with shortage of health care providers in health services provision and during assisted delivery. Around the world, the health status of people in rural areas is generally worse than in urban areas. McFarlane (2000) provide that, there is a relationship between shortages of health care provider's and infant's mortality rate in South Africa, infant mortality rates in rural areas are 1.6 times that of urban areas. Rural children are 77% more likely to be underweight or under height for age; 56% of rural South Africans live >5 km from a health facility; and 75% of South Africa's poor people live in rural areas. The low health status and variable patterns of illness and injury in rural areas sometimes lead into deaths especially if they are not attended by qualified health professionals.

In general, the rates of avoidable deaths in rural and remote areas are higher than in the cities. Generally, work injuries are more serious and more severe in rural areas, which to some extent follows from the stoicism and the 'too tough to care' mindset particularly amongst farmers and agricultural workers.

The effects of shortage of health care providers in rural and remote public health facilities vary depending on the culture, geographical location and nature of the community. The study findings show that the shortage of health care providers has substantial effects to the community at large including health care providers themselves. The effects include; Failure to provide patients with health services timely, Services are not provided as required (efficiency and effectiveness of service provision).

However it was noted that some health facilities have only two health care providers (high work load) and the consequence is lack of concentration on the patients' needs. Services are not provided by qualified health care providers which jeopardizes the health condition of citizens.

5.4 Strategies to Attract Health Care Providers to Work in Rural Public Health Facilities

Varied perceptions of strategies to recruit and retain health care providers were reported by respondents as presented in chapter four. Respondents generally felt compulsory rural

service for government employees including health care providers was un reasonable and it discourage health care provider's willingness to work. This was a motivation Strategy which focused on motivating Employees who are working in rural areas. It was for Teachers (both primary school and secondary school) Health care providers of all cardres. The objective was to give some extra money to employees who work in hard environment in Rural and remote Public Health facilities. But it was not implemented at all.

During the study the respondents mentioned that the positive work attributes could be enhanced by better housing and prospects for career advancement.

Being able to choose the rural area to work in was also felt to be of some value while there was strong support for greater rural financial incentives as a means to attract people to such posts, with as health care providers suggesting that there should be up to 50% improvement in basic salary. The shortage of health workers in the areas where they are most needed is an important problem for health systems.
Patients who have the greatest need for health care tend to live in remote and rural areas, but attracting skilled health workers to such areas and retaining them there has proved difficult.

This implies that such an uneven distribution of health workers contributes directly to the global burden of ill health and inequity in health outcomes. Thus, it will not be possible to improve health outcomes globally unless more health professionals are attracted to work in rural and remote areas. Statistically significant evidence of impact in well controlled trials may not be sufficient for informing practical policy decisions. The results of many human resource strategies are, in some measure, self evident.

Dolea et al., (2009, conducted made a study to assess strategies in attracting health care providers in rural public health facilities. The study noted that improving rural financial incentives are likely to improve rural recruitment and retention, but the critical questions are how much money is required to achieve a certain impact and how do financial strategies compare to other policy options, either individually or in combination.

However in Tanzanian context, the answers to these questions will certainly vary between one rural area and another and perhaps from one region to another.
Therefore what policy makers actually need is information on the relative impact and cost effectiveness of different packages of human resource interventions in a variety of contexts.

During the study respondents mentioned various strategies which may workout in dealing with shortage of Healthcare providers in rural and remote public health facilities. The study findings noted that 4(13.8%) mentioned that those who work in the village should be provided with incentives and improving working environment 3(10.3%) mentioned that security should be improved at every facility,2(6.9%) mentioned that basic services should be improved because the environments in which health care providers are working basic services like bank, market are not available till one travel a distance, 3(10.3%) mentioned that there should be opportunities to attend higher education and the priority should be given for those who work in rural and remote public Health facilities, 6(20.7%) mentioned that Improve working environment as well as providing enough working tools, 3(10.3%) mentioned that there should be Improvement of services and provision of incentives, increase salaries, staff houses and payments of over time for extra hours worked, 4(13.8%) mentioned that improvement of infrastructures, working conditions and education to health staff should be provided while 3(10.3%) said that the government should improve infrastructures of all kind in villages, rural and remote areas.

During the interview with Council Health Management Team (CHMT) members it was noted that there are some strategies which are currently used in Kilosa district to attract health care providers and retain them as well. The council members said that currently job vacancies are advertised internally to members of the local communities in order to reduce the possibility of turnover after recruitment. For example cadres of Trained Nurses and Laboratory technicians are sometimes recruited internally. However it was noted that monetary incentives is an ideal because it has some budgetary implications and there is budgetary deficit there in.

CHAPER SIX
SUMMARY OF THE FINDINGS, CONCLUSION AND POLICY IMPLICATIONS

6.1 Introduction

This chapter presents the summary, conclusion and policy implication of the study on assessment of factors influencing shortage of health care providers in Kilosa District Morogoro Region. Objectives of this study was to identify the factors that motivate health care providers choose where to work, to examine the effects of shortage of health care providers in rural and remote public healthcare facilities in Tanzania and to identify strategies that may increase the attractiveness of rural postings for health care providers.

6.2 Summary of the Findings

Shortages of health care providers have now reached critical levels in many resource poor settings especially in rural areas including Kilosa as presented in this study. Strategies for improving performance, retention and attracting healthcare providers vary depending on levels, experience and cadres of health care providers.

During the study it was noted that factors which influence shortage of health care providers are poor working environment, low job motivation and incentives, absence of opportunities for further training and when they are available there are difficult to access because of nature of sponsorship.

The study further noted that, general working environments of the facility which among other things involve shortage of working gears, reagents, drugs, poor houses of staff, toilets, old buildings, and absence of Quality of work life programs at the facilities are important issues which health care providers consider when they choose where to work.

The study noted that, effects associated with shortage of health care providers include poor quality of health services, high working loads to health care providers, poor work efficiency and in some few cases deaths may happen.

The study findings noted that 4(13.8%) mentioned that those who work in the village should be provided with incentives and improving working environment 3(10.3%) mentioned that security should be improved at every facility, 2(6.9%) mentioned that basic services should be improved because the environments in which health care providers are working basic services like bank, market are not available till one travel a distance, 3(10.3%) mentioned that there should be opportunities to attend higher education and the priority should be given for those who work in rural and remote public Health facilities, 6(20.7%) mentioned that Improve working environment as well as providing enough working tools, 3(10.3%) mentioned that there should be Improvement of services and provision of incentives, increase salaries, staff houses and payments of over time for extra hours worked, 4(13.8%) mentioned that improvement of infrastructures, working conditions and education to health staff should be provided while 3(10.3%) said that the government should improve infrastructures of all kind in villages, rural and remote areas.

6.3 Conclusion

This study observed that decisions of health care providers to choose or not choosing to work in rural public health facilities among other things depends mainly on one's job satisfaction, motivation , career decisions, working environment, availability of opportunities for further trainings and incentives. Job satisfaction of healthcare workers is also an essential part of ensuring high quality care. Dissatisfied healthcare providers not only give poor quality and less efficient care but there is also evidence of a positive correlation between job satisfaction and patient satisfaction.

Given the pivotal role that healthcare professionals play in determining the effectiveness, efficiency and sustainability of health care systems, it is imperative to understand what motivates them in order to reduce the level of shortage of health care providers in rural health facilities.

As noted above, improving rural financial incentives are likely to improve rural recruitment and retention, but the critical questions include how much money is required to achieve a certain impact and how do financial strategies contributes to retention in

comparison to other strategies, either individually or in combination. In Tanzanian context, the answers to these questions will certainly vary between one rural area and another and perhaps from one region to another. Therefore what policy makers actually need is information on the relative impact and cost effectiveness of different packages of human resource interventions in a variety of contexts.

6.4 Policy Implication

Although the results of a single study cannot in themselves be considered as a solid foundation for making decisions in health planning, the results of this study suggest that interventions should be carried out to increase levels of job satisfaction to health care providers in order to attract health care providers and retain them in rural and remote public health facilities. Since job satisfaction has a strong correlation with job performance, it is imperative to reinforce relevant human resources polices, improving working conditions and compensation.

However there should be improved relationships between Tanzanian government through the Ministry of Health and Social Welfare and that Health care provider should be effectively involved in decision making and provided with enough opportunities for further training in fairness and equity.

6.5 Areas for further Research

The availability of qualified human resources plays a vital role in the provision of quality health services. As far as employee's motivation is concerned, area for further research might be to evaluate some specific motivating factors for each cadre in order to come out with specific motivation strategies governing each cadre. This will give a clear picture on what exactly each cadre of health care providers need in order to continue working or to be attracted to work in rural public health facilities.

6.6 Limitations of the Study

The major limitation of this study was respondent's time to fill the questionnaire because of schedule as they were few in number at the health facilities. This lead into long waiting for the researcher as the researcher had to wait until the respondents finish their responsibilities. Some respondents were completely occupied by administrative issues especially Council Health Management Team members. However this was solved through making appointments in the following day though the health facilities are located far away.

REFERENCES

Adjei, G. (2009). I**nterventions to Improve Human Resources for Health among Faith-Based Organization,** Cordaid and Royal Tropical Institute. The Hague.

Blake, L., Hourser, J., Hegaman, P., and Kurz, M. (2012). **Rural Healthcare Provider Retention Strategies**, Rural Health Resource Centre-Central Region.

Chen L, Evans T, Anand S, Boufford JI, Brown H, Chowdhury M, et al (2004). "**Human resources for health: overcoming the crisis."** The Lancet.

Chen,J., Geromo,B., Carlson,E., and Bosil,O.(2008). Rural **Physician Workforce: Analysis of Medical School Graduates**: The Rural Health Working Paper Series. 113.

Chopra M., Lawn, E., and Sanders, D. (2008). '**Effects of policy options for human resources for health: analysis of systematic reviews**. The Lancet.

Daft, L. and Noël, P. (2001). **Organizational Behavior**, South-Western Publishing: \ New York.

Hongoro, C. and Normand, C. (2006). **'Health workers: Building and Motivating the Workforc**e. Disease Control Priorities in Developing Countries, 2nd edition, Washington.

Dolea C, Stormont L, Shaw D, Zurn P, Braichet J (2009). **Increasing access to health workers in remote and rural areas through improved retention.** Geneva: World Health Organization

Ifakara Health Institute, (2010). **An assessment of the distribution of health service benefits in Tanzania,** London School of Hygiene and Tropical Medicine, United Kingdom

Kinfu, Y., Poz, D., Carlson, B. And Bosil, E. (2009**). Health Worker Shortage in Africa: Are Enough Physicians and Nurses being trained?** Journal of bulletin of the World Health Organization, volume 87.

Lehmann, U. (2008). **Staffing remote rural areas in middle- and low-income countries: a literature review of attraction and retention**. BMC Health Services Research.

Mastad, O. (2006). '**Human resources for health in Tanzania: challenges, policy options and knowledge gaps,'** CMI discussion paper number R.2006, Michelsen Institute: Bergen Norway.

Manzi, F., Kida, T., Mbuyita, S., Palmer, N., and Gilson, L. (2004). **'Exploring the influence of workplace trust over health worker performance:** Preliminary national overview report', Tanzania HEPF Working Paper 07/04. London School of Hygiene and Tropical Medicine: United Kingdom.

Ministry of Health and Social Welfare **(2009). Proposal for a Tanzania health workforce initiative,** Canadian International Development Agency.

Ministry of Health and Social Welfare (2006).**Annual Health Statistical abstract**, Health Information and Research Section, Dar es Salaam.

Ministry of Health and Social Welfare (2007). **Primary Health services Development Programe 2007-2017**, Dar es Salaam.

Ministry of Health and Social Welfare (2008).**Human Resource for Health Strategic Plan2008-2013,** Dar es Salaam.

Ministry of Health and Social Welfare (2011). **Health Sector Public Expenditure Review**, May 2012, Dar es Salaam.

Munga, A. and Mbilinyi, D. (2008). '**Non-financial incentives and retention of health workers in Tanzania**: Combined evidence from literature review and a focussed cross-sectional study, Discussion Paper Series 61. NIMRI, Harare.

Obrien, P. and Gostin, L. (2011). **Health Worker Shortages and Global Justice**, New York.

Prasad,L.(2009). **Principles and Practice of Management**, Sultan Chand&Sons, New Delhi.

Peter D. (2001). *The nurse shortage: Perspectives from current direct care nurses and former direct care nurses*. Washington, DC: Federation of Nurses and Health Professionals

Rabinowitz, L., Markhan, W., and David, E. (2001).Critical Factors for Designing Programs to Increase the Supply and Retention of Rural Primary Care Physicians. Journal of American Medical Association.

Rourke J, Incitti F, Rourke L, Kennard M.(2003). Keeping family physicians in rural practice. Solutions favoured by rural physicians and family medicine residents. Newyork

Ruger, P. and Kim, H. (2006). **Global Health Inequalities**: **An International Comparison**. Journal of Epidemiology and Community Health 60 (11).

McFarlane S, Racelis M, Muli-Musiime F. Public health in developing countries. Lancet 2000; 356: 841–846.

Speybroeck, N., Yohanas, K., and James, P. (2006). Reassessing the relationship between human resources for health, intervention coverage and health outcomes, World Health Organization Geneva.

Sikika (2010). **Human Resource for Health in Tanzania**, Development tracking Survey, Dar es salaam. Stewart, J.B. and Clark, D.A. (2006): "The Globalization of the Labour Market for Healthcare Professionals." International Labour Review 145 (1-2): 37-64.

United Republic of Tanzania Ministry of Health and Social Welfare (2007). **Primary Health services Development Programme (PHSDP)** 2007-2017, May 2007.

United Republic of Tanzania Ministry of Health Social Welfare (2008).**Tanzania Human Resources for Health**: strategic plan2008-2013. Dar es Salaam Tanzania.

United Republic of Tanzania Ministry of Health and Social Welfare (2007). **Tanzania Service Availability Mapping survey,** Dar es Salaam**.**

United Republic of Tanzania Ministry of Planning (2005).**Vision 2025, Government of Tanzani**a: Dar es Salaam

United Republic of Tanzania (2005).**National bureau of statistics report**, Dar es Salaam.

United Republic of Tanzania (2008). Ministry of Health Human Resources for Health Strategic Plan (HRHSP) 2008-2011.

United Republic of Tanzania (2003). **National Health Policy,** Dar es Salaam**.**

United Republic of Tanzania (2011). **Poverty and Human Development Report**, REPOA, Dar es Salaam.

United Republic of Tanzania (2010). **Tanzania Demographic and Health survey**, Dar es Salaam.

World Health Organization (2006). '**Working together for Health,** World Health Report. Geneva

World Health Organization (2006). The Global Shortage of Health Workers and Its Impact, Geneva.

APPENDIX

Appendix 1: Semi Structured Questionnaire for Health Care Providers

Name of the health facility	
District Name	
Title of the respondent	
Work Experience (Duration)	
Gender	
Education Level	Secondary education Form four [ ] Form Six [ ] Certificate [ ] Diploma [ ] Degree [ ] Medical Doctor (MD)[ ] Masters[ ] Others ……

WORKING ENVIROMENT AT THE FACILITY

S/N	What is the total number of Health care Providers in this Facility?	Cadre	Available Number	Required number
1(a)		Medical Doctors		
		Assistant Medical Officers (AMOs)/Clinicians		
		Clinical officers		
		Assistant clinical officers		
		Nursing officers		
		Trained nurses		
		Nurse Midwives		
		Public Health Nurse (PHN) B		
		Maternal and Child Health Aides (MCH)		
1(b)	Are they enough to perform daily operations at this facility?	YES [ ] NO [ ] ……..		
1(c)	If NO Explain which cadres are experiencing severe shortage?	Please Mention …… ……		
2	What do you think are the effects of shortage of health care Providers in Rural Public Health Facilities?	Please Mention…….. …….		
3(a)	Are you provided with enough working facilities during the performance of your tasks?	YES [ ] NO [ ]		
3(b)	If NO, how does lack of working gears affect your performance and health services provision in general?	Please explain…….		
4(a)	How many hours do you work per week in this facility?	Hours [ ]		
4(b)	Did you work on calls hours in the last thirty days? If YES, How many on call hours did you work in the thirty days?	Hours [ ] None [ ]		
5(a)	Do you receive any allowances when working extra hours?	YES [ ] NO [ ]		
5(b)	If NO, Why do you think there is no payment for extra hours worked?	Please explain……..		
6(a)	What is you housing status?	Please tick appropriate. Rented [ ] Owned [ ] Government owned [ ]		
6(b)	If Rented who pays for the house rent?	Explain…….		
7(a)	Does the working environment at this Health facility reflect your expectations before recruitment?	YES [ ] NO [ ]		
7(b)	If YES, what do you like most about the working environment at this Health facility?	Explain……..		
7(c)	If NO, What do you dislike most about working at this Health facility?	Explain……..		

GENERAL SATISFACTION

S/N	**RESPONSIBILITY**	Strongly Agree	Agree	Disagree	Strongly Disagree
8	If i could choose the career again i would make the same decision				
9	My income is a reflection of the work I do				
10	There is no personal growth in my work				
11	I would like to change my career				
12	I really enjoy my work				
13	In general I am satisfied with my work				
14	I enjoy the status in the community as a healthcare professional				
15	I receive recognition for tasks well done				
16	I am entrusted with great responsibility in my work				
17	I have enough freedom to decide how I do my work				
18	I spend more time doing what could be done by others with less experience & training				
19	There is a direct relationship between training and job performance at this district				
20	I think training received has satisfied my training needs				
21	There are equal opportunities for everyone to attend training at this Health Facility				
22	Training received has improved my job performance				
23	For the five years period the performance of Health sector at this District has improved due to an increasing rate of training opportunities				

S/N	**MONETARY BENEFITS**	**Strongly Agree**	**Agree**	**Disagree**	**Strongly Disagree**
24	Monetary benefits received by Health care Providers at this district reflect the efforts exerted at work				
25	Health care Providers at this District are satisfied by monetary benefits reveived				
26	Monetary benefits received by Health care Providers at this District are similar to employees of the same level (education, scale) in other sectors.				
27	Allowances received by Health care providers at this district reflect their daily performance.				
28	Monetary benefits received by health care providers contribute to their performance.				
S/N	**DECISION MAKING**	Strongly Agree	Agree	Disagree	Strongly Disagree
29	Health workers are involved in decision making at the facilities.				
30	Views provided by Health care Providers in order to improve quality of life and services are not considered.				
31	The district health committee recognizes efforts and performance of Health care Providers.				
32	Health care providers at this district are provided with incentives when they are involved in decision making meetings.				

	JOB MOTIVATION	
33	What motivates you to be a Health care Provider in Rural area Health Facilities?	Explain…….
34	For how long did to plan to continue working in this facility?	Explain ……...
35	If you are given a chance to choose working in urban and rural Health facilities would you make the same decision?	YES [ ] NO [ ] Please explain… …….
36(a)	At this Health Facility do you experience the problem of Labour Turn over?	YES [ ] NO [ ]
36 b)	If yes why do you think there is a turnover in this facility?	Explain …….
37	What are the compensations do you receive when working extra hours?	Mention …….. ……
	ATRACTION TO WORK IN RURAL HEALTH FACILITIES	
38(a)	Do you think most of Health care Providers prefer to work with rural health facilities in their first appointment?	YES [ ] NO [ ]
38 b)	If NO why do you think they are not interested to work with Rural Public Health Facilities?	Explain…….
39	What do you think are proper strategies to attract Health care providers to work in rural public health facilities?	Please explain……. …….. …….
40(a)	Do you think the government has made enough efforts to attract health care providers to work in Rural Public Health Facilities?	YES [ ] NO [ ]
40 b)	i). If YES mention those efforts ii) If NO what do you think should be done to attract Health care Providers to work in Rural Public Health Facilities?	……. ……..

Appendix 2: An in-depth Interview Guide for Council Management Team

Qn.1. How can you describe the physical environment of this Health Facility?

Probe questions

- Do you think the Physical environment encourages you to perform as to the stated objectives?(buildings, Privacy rooms during consultations, cleanness of the environment, availability of facilities to support hygiene, toilets, water supply, drainage systems).
- What are the key challenges faced in the course of performance of your daily duties with regard to the existing physical environment?
- What supervisory strategies do you need to improve physical environments at this health facility?

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……

Qn.2. What quality of work life programs do you have at this Health facility?

Probe questions

- Can you list the type of Quality of Work Life programmes that exists and are being applied in this health facility?
- To what extent the programme has improved wellbeing of Health care providers?
- What are the challenges faced in implementation of this programme?

……..
……....
……
……

Qn.3. Do you think why Health care providers are not interested to work Rural and remote Public Health facilities?

Probe on: (Job description, Job expectations, and opportunities for further training, training and development, job motivation, recognition from the community).

……

……
……
……

Qn.4. What makes Health care Providers choose to work in some Rural Public Health Facilities and refuse to work in other Rural Public Health Facilities?

Probe questions

- Do you think there is a difference in working environment between one rural Health Facility and another in different location?
- What are the reasons for that difference? (if any)
- Do you think that difference has something to do with the government health policies?
- What is the contribution of Council Health Management team in promotion of health facility working environment?

……
……
……

Qn.5. What are the effects associated with shortage of Health Care Providers in rural and remote public health facilities?

Probe on: (effects to the community, quality of the service, work load distribution, client rights, Health facility administration, dealing with emergency cases).

……
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……
……
……
……

Qn.6. What strategies should be made to attract Health Care Providers to work in rural and remote public Health facilities?

Probe on: (Government strategies, existing policies, retention mechanisms, recruitment strategies, benefits and remuneration policies)

……
……
……
……

APPENDIX III

Table 4. 14: Status of Health Care Providers at the Surveyed Health Facilities

s/n	Item assessed	Responses	Frequency	Number of Health care providers per facility	Percentage
1	Availability of Medical Doctors	Available	3	1	10.3
		Not available	26	0	89.6
2	Required number of Medical Doctors	Required	16	0	55.2
		Not required	13	1	44.8
3	Availability of AMO	Available	14	1	48.3
		Not available	15	0	51.7
4	Required number of AMO	Required	18	4	62
		Not required	11	0	37.9
5	Availability of Clinical Officers	Available	27	1	93.1
		Not available	2	0	6.9
6	Required number of Clinical Officers	Required	25	5	86.2
		Not required	4	0	13.8
7	Availability of assistant clinical officers	Available	0	0	0
		Not available	29	0	
8	Required number of Assistant clinical officers	Required	29	5	100
9	Availability of Nursing officers	Available			
		Not available	29	0	100
10	Required number of Nursing officers	Required			
		Not required	29	0	100
11	Availability of trained Nurses	Available	19	4	65.5
		Not available	10	0	34.5
12	Required number of Trained Nurses	Required	17	1	58.6
13	Availability of Midwives	Available	18	1	62.1
		Not available	11	0	37.9
14	Required number of Mid wives	Required	8	3	27.6
		Not required	9	0	31

Source: Field Data (2013).