CHAPTER ONE

1.0. INTRODUCTION

1.1. Background

Skilled and motivated health workers in sufficient numbers, at the right place and at the right time are critical to deliver effective health services and improve health outcomes. In addition, ensuring universal access to skilled, motivated and supported health workers, especially in remote and rural communities, is a necessary condition for realizing the human right to health, a matter of social justice. It is also at the core of each and every global health goal – the United Nations' Millennium Development Goals, Primary Health Care, Expanded Programmes on Immunization, and Control of HIV/AIDS, malaria and tuberculosis. For none of these goals is attainable, if significant population groups are denied access to health workers.

Globally, there are stark imbalances in the geographical distribution of health workers, both in the developed and developing countries. Approximately 50% of the world's population lives in rural areas but these areas are served by only 38% of the total nursing workforce and by less than 25% of the total physicians' workforce (WHO, 2006). Therefore, providing people in rural areas with access to well trained health workers is a global challenge. At the country level, imbalances in the distribution of health workers are even more prominent. For example in Dar-es-Salaam, the capital city of Tanzania alone has nearly 30 times as many medical officers and medical specialists as any of the

rural districts while in Zambia the staffing situation in rural areas is worse than in areas along the line of rail (Anyangwe, 2007). Health Centers in remote areas are rarely staffed according to minimum levels (CO, ZEN/ZEM, and EHT). In some remote districts, more than 50% of the Rural Health Centers (RHCs) have only one qualified staff. In these districts there are also some RHCs without qualified staff at all (Koot and Martineau, 2005).

Several factors contribute to this shortage of health workers. According to Tjoa (2010), in some countries including Zambia, underinvestment in training institutions has led to an inadequate supply of professional health graduates. Meanwhile, many qualified health professionals migrate abroad to fill more lucrative health positions. Others join the private health sector or leave the health sector altogether.

On the other hand, one of the most damaging effects of severely weakened and under-resourced health systems is the difficulty they face in producing, recruiting, and retaining health professionals, particularly in remote areas. Low wages, poor working conditions, lack of supervision, lack of equipment and infrastructure as well as HIV and AIDS, all contribute to the flight of health care personnel from remote areas (Lehmann, Dielman and Martineau, 2008).

Policy-makers in all countries, regardless of their level of economic development, struggle to achieve health equity and to meet the health needs of their populations, especially vulnerable and disadvantaged groups. One of their most complex challenges

is ensuring people living in rural and remote locations have access to trained health workers. A shortage of qualified health workers in remote and rural areas impedes access to health-care services for a significant percentage of the population.

1.2. The Zambian Context

Zambia is a country with clear differences between rural and urban areas. More than 40% of the population is concentrated in a few urban areas, while the remaining 60% sparsely populates most of the country (MDG Progress Report, 2008). Many rural areas are inaccessible by road during the rainy season. Distances are long and it takes time to cover only a few kilometers. Similarly, modern comforts still have to reach rural areas. These problems, together with brain-drain and the higher salaries offered by international Non-Governmental Organisations (NGOs) and agencies, make it very difficult to find health workers willing to work in rural Zambia.

According to the Government of the Republic of Zambia's Ministry of Health (MOH), the country is operating with fewer than half the health workforce necessary to deliver basic health services, with even higher vacancy rates in rural areas. Population ratios nationally are as low as 1 doctor per 14 500 people and 1 nurse per 1800 people (Ministry of Health and Republic of Zambia**:** Human Resources for Health Strategic Plan (draft) 2006 – 2010); this is much lower than the 1 health worker per 400 people recommended by the Joint Learning Initiative as the minimum threshold necessary to provide equitable coverage of basic health services (Tjoa, 2005). This shortage of health workers is threatening adequate and equitable health care delivery, and it is one of the major factors holding back attainment of the Millennium Development Goals (MDGs).

In 2003, the MOH initiated a policy reform process to address this critical shortage in the public sector.

Zambia's Central Board of Health initiated a retention scheme in the public health sector as a pilot in 2003. The scheme (which received funding support from the Netherlands) sought to recruit and retain doctors in rural areas by providing a financial incentive (hardship allowance), school fees and loans for large purchases like cars or houses. Funds were also made available for renovation of government housing. At the end of the three-year contract, the doctors were eligible for postgraduate training sponsorship. A 2005 Midterm review found that the programme had been successful in attracting doctors to rural areas, and 53 additional doctors joined the scheme. Although four left by the Midterm Review, attracting 53 doctors in two years was a significant milestone for Zambia (Ymkella F., 2009).

The retention scheme was further extended to other health cadres in 2008; however the scheme has not been evaluated since it was extended to other professionals. According to WHO (2009), the challenges faced in the expansion of the scheme especially the factors affecting other cadres need to be empirically evaluated.

1.3. About the Research

This research was conducted under the Africa Health Systems Initiative Global Health Research Initiative Project being run in Zambia by the Zambia Forum for Health

Research (ZAMFOHR) under the title "*Evaluating the Availability of Adequately Trained Health Care Providers in Rural Zambia through Competency Assessment and Outcome Mapping"*. Its main objectives are;

"To evaluate current health worker retention and recruitment strategies in Gwembe and Chibombo Districts in terms of their impact, if any, on health, provider, and systems outcomes"; and "To assess the alignment of existing health worker competencies with the health needs of the people of Gwembe and Chibombo districts".

This research on the other hand, sought to build a case study on the innovative programmes that government has put in place and whether they are contributing to an increase in access to qualified health workers in rural and remote areas. Therefore, the ZAMFOHR project focuses on the health, provider and systems outcomes while the latter focuses on the satisfaction of the health workers with regards to the programmes that have been put in place.

CHAPTER TWO

2.0. STATEMENT OF THE PROBLEM

2.1. The Problem

The Ministry of Health (MOH) is clearly operating with fewer workforce than what is needed to deliver the essential health package. Shortages are most acute in rural health centers, with many facilities operating without any professional staff at all, and more than 50% having only one qualified staff member (WHO, 2009).This may result in increased workload for the active health workers, low motivation and morale, poor performance and low productivity levels and deterioration in quality of health care and health sector performance.

The marked disparity between rural and urban areas gives rise to specific needs and problems in the health sector. According to the Zambia Demographic Health Survey, more than 1 in 10 children born in rural areas died within their first six days of life, twice as much as in urban areas. Moreover, only 30% of their mothers were assisted in birth by a skilled person. This figure rises to over 80% in urban areas. Conversely, there are twice as many chances of testing HIV positive for those living in an urban area (20% against 10%), (Demographic Health Survey, 2007). Major causes of death in Zambia are HIV/AIDS, respiratory infections and malaria. In children under five, the picture is slightly different - birth complications, pneumonia, malaria and diarrhea are the most common causes of death (WHO, 2006).

In recent years, there has been increased interest from both researchers and policy-makers to identify and implement effective solutions to address the shortages of health workers in remote and rural areas. The Zambian government through The Ministry of

Health National Health Strategic Plan 2006 to 2010 has provided several strategies to increase the size of the health workforce through the improvement of training, management, and retention to curb this shortage. These incentive programmmes target key health cadres primarily in rural areas whose main objective is to decrease attrition rates of current critical service providers especially in rural areas (Mwale and Smith, 2008).

This study therefore sought to evaluate the effectiveness of the scheme and initiatives targeting other health cadres (clinical officers, midwives, nurses, pharmacists, environmental health technician and laboratory technicians) in attracting, recruiting and retaining them in rural and remote areas. These include the Zambia Health Workers Retention Scheme, remote hardship allowance, rural hardship allowance, graduate recruitment and retention allowance, housing allowance, rural and remote professional development priority, solar power/electrification, water provision and transport.

2.2. Rationale

This research built on and expanded earlier work on assessing the evidence on effectiveness of government's innovative programmes to increase access to health workers in rural and remote areas. It mainly focused on evidence of the interventions on clinical officers, midwives, nurses, pharmacists, environmental health technician and laboratory technicians. This will therefore, ascertain if these programmes have had an impact to other health cadres, since the available information only provides its

performance on the retention and recruitment of doctors. This in turn should be able to provide useful insight to policy makers on how the programmes can be strengthened.

CHAPTER THREE

3.0. LITERATURE REVIEW

3.1. Factors affecting recruitment and retention

There are many different theories and models coming from different disciplines which attempt to categorise and explain the factors impacting on workforce mobility. Behavioral theories, such as those developed by Maslow and Herzberg, show a more complex decision-making process regarding the movement of labour with a particular emphasis on the importance of job satisfaction (Lehmann, 2008). In the recent literature on health workforce mobility relating both to international and internal migration, factors have commonly been categorised into "pull" and "push" factors.

“Pull" factors are identified as those which attract an individual to a new destination. These might include improved employment opportunities and/or career prospects, higher income, better living conditions or a more stimulating environment. "Push" factors are those which act to repel the individual from a location. They often mirror "pull" factors and might include loss of employment opportunity, low wages, poor living conditions, etc (Ibid).

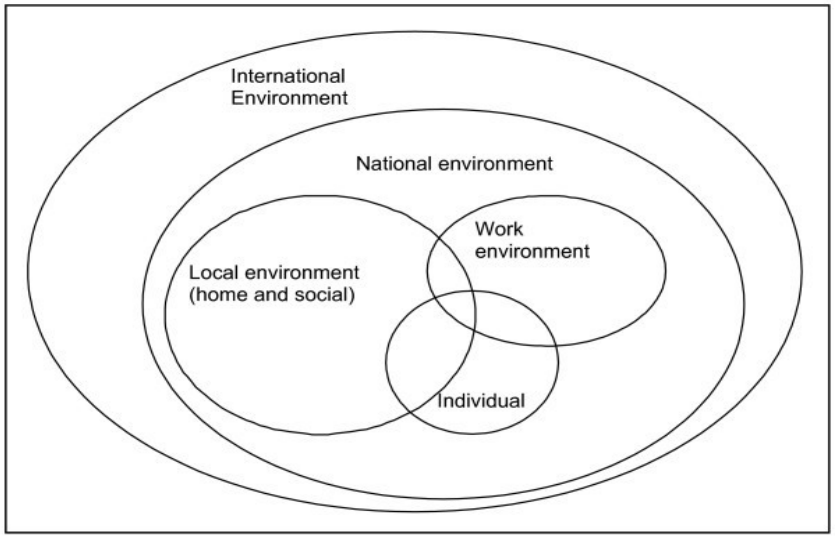
According to WHO Bulletin (2010), the extent to which health workers can be attracted to and retained in remote areas depends on two interrelated aspects: the factors which contribute to health workers' decisions to accept and stay in a remote post and the strategies employed by governments to respond to such factors. The strategies are usually grouped into four main categories: education, regulatory, financial and personal and professional support interventions (ibid).

However, factors on the supply side, such as health workers' preferences, have received little attention despite the fact that policy-makers seeking to address geographic imbalances need to also take these factors into account. Policies have shifted from compulsory rural service, which is difficult to manage and enforce, to providing economic incentives for such service in the form of rural allowances and bonuses. But in the absence of rigorous evaluation, just how effective these incentives are in attracting health workers to rural areas or retaining them in rural posts is uncertain. The available evidence suggests that such measures can improve short-term recruitment but their effect on long-term retention is less clear. To address these difficulties, countries as diverse as Australia, the United States of America (USA), Indonesia and Thailand have developed recruitment programmes that target health workers who have particular reasons for being committed to rural service. Emerging survey evidence suggests that health workers with a rural background are more willing to work in rural posts and are more responsive to incentives to work in rural areas. Recent theoretical work also suggests that intrinsic motivation, i.e. the desire to do something for its own sake, can have a strong effect on job choice. New evidence confirms this for health workers in developing countries. However, most human resource policies do not take into account heterogeneity in health worker preferences.

Both push and pull factors impact on the individual who makes a decision about moving to, leaving or staying in a job in many different ways. Any decision by an individual will be the result of a complex interplay between these factors. For the purposes of analysis and strategy development it is helpful for policy-makers and managers to have some

way of organising the different factors. Lehmann (2008), did this by grouping the different types of environment surrounding the individual.

Figure1. Different environments impacting attraction and retention



Adapted from: Lehmann *et al. BMC Health Services Research* 2008

The work environments encompasses push and pull factors, such as local labour relations, management styles, existence or lack of leadership, opportunities for continuing education, availability of infrastructure, equipment and support. Lastly, there are a number of individual factors which may impact on decisions, such as origin, age, gender and marital status.

Various authors argue that, although factors are multi-facetted and complex, strategies are usually not comprehensive and often limited to addressing a single or limited number of factors. They suggest that because of the complex interaction of factors impacting on attraction and retention, there is a strong argument to be made for bundles of

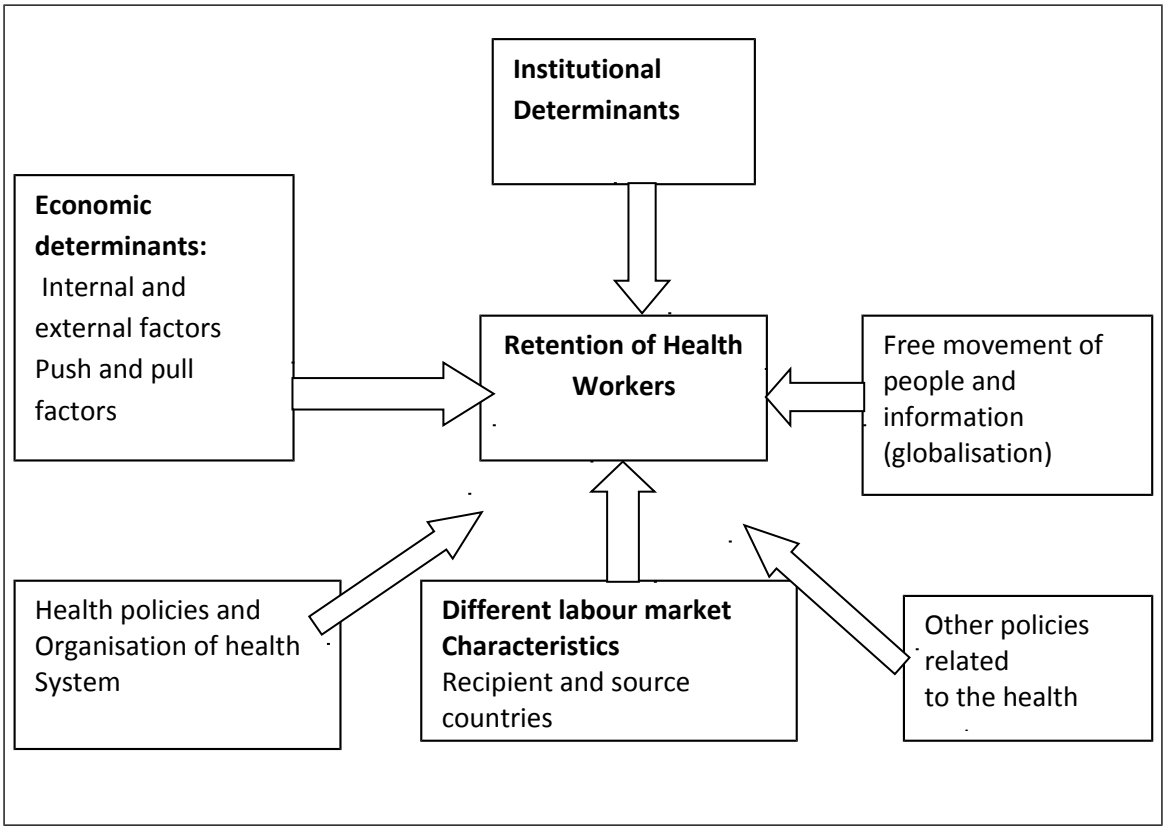
interventions which include attention to living environments, working conditions and environments and development opportunities. They further explore the organisational location of decision-making related to retention issues and suggest that because promising strategies often lie beyond the scope of human resource directorates or ministries of health, planning and decision-making to improve retention requires multi-sectoral collaboration within and beyond government (Lehmann, 2008).

Several strategies have been proposed to address the problem, including changing student selection criteria; improving educational opportunities for workers; introducing financial incentives; creating more supportive working environments; and making it compulsory for health professionals to work in underserved areas. However, the potential impact of these policy interventions, either singly or in combination, remains undetermined. Recent systematic reviews have invariably concluded that few rigorous studies evaluating the impact of rural recruitment and retention strategies have been conducted.

Figure 2 shows how the factors listed above fit together into a framework that can help analysts and policy makers to identify the main determinants of poor health worker retention and the shortage of health workers. The framework has been adopted in this study because some characteristics of Zambia's health sector labour market may be a response to the effects of international labour markets. Globalisation and the free movement of goods, people, services, information and technology may all impact on the country's health system and its labour market, including health workers' individual

choices (preferences) about which labour market is most attractive. The push and pull factors framework is not discarded, but instead other crucial determinants have been added.

Figure 2: Conceptual Framework for analyzing health workers retention



Adapted from: Munga and Mbiliyi (2008)

3.2. Existing Schemes

The schemes are meant to provide incentives to the health workers for them to operate in respective health facilities. The World Health Organization (WHO) defines incentives as 'all rewards and punishments that providers face as a consequence of the organisations in which they work, the institutions under which they operate and the specific

interventions they provide' (WHO, 2000). Incentives for health workers are broadly seen as either financial or non-financial.

Despite recent increased rhetoric, human resources remain a sorely neglected and grossly under-financed engine for health improvement. That is why 1500 global health leaders issued the Kampala Declaration in 2008: "to assure adequate incentives and an enabling and safe environment for effective retention and equitable distribution of the health workforce" (WHO website).

According to Pascal (2008), there are a large range of policies and initiatives that have been developed to recruit and retain health workers in rural areas. They have been classified into 7 categories(i)Improving working conditions: career development, support for training, network support/multidisciplinary health centers, provision of adequate equipment and security (ii) Creating different types of cadres (task shifting, substitution) (iii) Improving health conditions: Housing, school for children, transportation and communication (iv) Community initiatives: Integration into the community (for the health worker, spouse, children) (v) Education related measures: Student enrollment, rural training/placement and return of service (vi) Regulatory measures: bonding scheme, provisional license (vii)Financial incentives: Remuneration (mode and level), special allowances and pension.

While there is considerable overlap between factors affecting attraction and retention in rural areas, attraction is based on expectations while retention is based on actual working and living experience, therefore, the strategies to attract and retain health workers in

remote and rural areas should include a set of combined or 'bundled' interventions. For example, in Thailand a complex programme was put in place which included regulatory interventions (compulsory contract of 3 years of public work after graduation), coupled with economic aspects (rural development project and financial incentives), as well as education and managerial interventions (rural recruitment and training in rural health facilities); development of community medicine, improved personnel management (WHO, 2009).

3.2.1. Financial Incentives

Financial incentives may be direct or indirect. Direct financial incentives include pay (salary), pension and allowances for accommodation, travel, childcare, clothing and medical needs. Indirect financial benefits include subsidized meals, clothing, transport, childcare facilities and support for further studies (Adams, 2000).

In most countries, health worker salaries are poor, and financial incentives are essential because most health workers want enough money to meet their living costs, arguably making good remuneration the most influential factor for retaining health workers (Dovlo and Martineau, 2004). Financial incentives tend to have dramatic and immediate results, either slowing the exit of workers from the health sector or attracting them to the system. For example, in Kenya raising doctors' allowances led to hundreds of doctors applying for government jobs (Matheau and Imhoff, 2006). In Swaziland, many health workers opted to work in the public sector after a 60% pay raise (Kober and van Damme, 2006) and, in Malawi, a 52% pay raise reduced worker attrition from the public

sector in a few months (Palmer, 2006). Improving pay is an obvious measure to address attrition, but often depends on wider economic factors, such as those that determine the government revenue that finances salaries, as well as the real value of salaries. In conditions of high inflation – for example, those found in Zimbabwe in the past ten years – the gains from pay increases are rapidly eroded by increases in the cost of living (Chimbari, 2008).

While Kenya's Ministry of Health actively recruits and posts health workers to poorer areas of the country (sub-district and district hospitals), inferior conditions and out-migration leads to a paradoxical situation of staffing gaps, vacancies and unemployed health workers. This pushes health workers to seek employment in the international market. Push and pull factors for migration include poor remuneration, poor working conditions with limited supplies and no supervision, heavier workloads in rural public facilities (due to greater demand), limited career and educational opportunities for workers and their families, poor communication, and the impact of HIV and AIDS.

Ndetei (2008), states that in response, the Kenyan government has developed new standards to improve working conditions through a number of financial incentives: paid leave; overtime pay; house or car loans negotiated at lower rates (for highly skilled workers); allowances for transport, entertainment, hardship, responsibility, special duties and uniform; salary increments; and provision of opportunities to engage in private practice. Non-financial incentives include: sponsorship for studies with bonding agreements; housing (or housing allowances); post-qualification training and continuing

medical education; life insurance; shorter working hours; medical cover (includes nuclear family); and, the introduction of HIV and AIDS treatment at workplaces.

However, these incentives have not halted the continual loss of qualified professionals. Furthermore, many nurses and clinical officers remain unemployed due to limits on employment and a freeze on filling newly vacant positions. (Ndetei,Khasakhala and Omolo, 2008).

Another country which has implemented a retention package for health professionals in government institutions is Zambia through its Health Service Board. The package includes both financial and non-financial incentives. However, financial incentives are failing to achieve the desired results (retaining health professional staff) because of the hyper-inflationary environment in the country. Results from the field survey (questionnaires, interviews and FGDs) indicated that some staff was not aware of some financial incentives like the H-factor in their salary and the urge that health professionals have over other civil servants. This was probably because the incentives did not improve their disposable income. Furthermore, there were disgruntlements expressed with regard to some allowances like night duty allowance allocated to doctors and nurses but not to other staff working overnight alongside Critical Health Professionals (CHPs). This usually compromises the quality of the service provided. It was noted that the proposed incentives packages to minimise rural to urban migration is rather general, as it includes other incentives also applicable to all health workers, for example, low interest loans and educational allowances (Chimbari, 2008).

The major health policy framework in Uganda is the *Ministry of Health National Health Policy*. However, another important policy is the *Health Policy Statement, 2001/2002* (The Republic of Uganda Ministry of Health, 2001), which also contains countrywide retention strategies and guiding principles. For example, increase nursing workforce numbers, harmonize salary scales, upgrade skills of nursing aides, and provide allowances for large initiatives (e.g., subsidization of housing) and smaller supportive initiatives (e.g., the provision of a hot lunch). It also includes important professional development initiatives and specific recommendations to achieve them. For example, increase salaries and institute a consultative process with the Ministry of Health, the Uganda Nurses and Midwives Council, and the Uganda National Association of Nurses and Midwives (UNANM). In 2004/2005, there was an increase in nurses' salaries across the country (Baumann, 2006).

In conclusion, direct financial incentives to practice in rural areas may encourage rural practice, in particular in developed countries, but reports from developing countries are not positive, with the exceptions perhaps of a few countries, such as Mali, Zambia, and South Africa (Perry, 2006; Reid, 2004, Koot, 2005)

3.2.2. *Non-Financial Incentives*

Non-financial incentives include holidays, flexible working hours, access to training opportunities, sabbatical/study leave, planned career breaks, occupational health counseling and recreational facilities (Adams, 2000).

Health workers do not only seek financial incentives, as observed by the head of the Malawi Nurses and Midwives Council, most health workers 'look beyond salary increments … at personal development, better housing … education for children … specialization...' (IRIN, 2006). Non-financial incentives create a stabilizing influence, after the more rapid effects of financial incentives, by sustaining health worker commitment and sending signals that health workers are supported. Although non-financial incentives are, ultimately, financial because they cost money to provide, they cater for longer-term career, welfare and systems benefits that may provide greater stability. In many cases, for example, training or workplace investments, non-financial incentives may cost nothing because they can be created by more effectively organizing and aligning existing resources to meet the needs of health workers, the systems they work in and the communities they serve, with wider gain to all.

Where these investments are applied in areas or services levels where there is high health need, there are potential equity gains. Consequently, EQUINET with ECSA-HC has focused on the use of non-financial incentives as a measure for ensuring the adequate and equitable distribution of health workers.

Very few countries have implemented large scale interventions to improve the infrastructure and living conditions, and evaluations of these interventions have been published (Mali, Thailand and Zambia are such examples) (Noree et al., 2005, Koot, 2005). This is despite the fact that factors that rank highest in workers' preferences and

choices of location are precisely those related to the local infrastructure, isolation and working conditions (Carmen, 2009).

In the case of Zimbabwe, non-financial incentives were greatly appreciated by CHPs, such as confirmation of staff that had acted in senior positions over many years, professional advancement leave and recognition of higher qualifications in the case of nursing staff. Among the non-financial incentives, vehicle and accommodation loan schemes were most appreciated but unfortunately that component of the incentives package was not yet fully operational because of funding constraints. Data collected using various methods applied in the study indicated that improvement of the working environment and assistance for child education, accommodation and transport were key desired incentives (Chimbari, 2008).

According to Equinet, incentives are designed to attract or retain. Little, however, has been done to document the monitoring and evaluation of these incentive and their impacts are not well assessed. The current evidence shows that, there exist some success stories in:

- Meeting immediate needs through top-up allowances.
- Combining financial and non-financial incentives.
- Targeting recruitment, training and bonding.
- Using incentives to attract health workers from private to public sectors.

- Financing incentives through Sector Wide Approaches and budget support, including through external support.

3.2.3. Zambia Health Workers Retention Scheme

In 2003 the Government of the Republic of Zambia in partnership with the Royal Netherlands Government embarked on a Pilot Retention Scheme (RS) for health professionals, in the context of the Poverty Reduction Strategy Paper and officially recognized and authorized as such by Cabinet Office, starting with doctors in an effort to retain and support them work in rural areas of Zambia. The implementation of the RS pilot phase started in September 2003 and was to initially run till 2007. In 2008 however, the scheme was extended to other health cadres.

In line with the National Health Strategic Plan, the overall objective of the RS was improved service delivery in the rural and underserved parts of the Zambia, contributing to: 1. Reduced child mortality; 2. Improved maternal health; 3. Combating HIV/AIDS, malaria and other diseases i.e. halt and begin to reverse the spread, of HIV/AIDS; Halt and begin to reverse the incidence of malaria and other major diseases; 4. Ensuring environmental sustainability i.e. reverse the loss of environmental resources; 5. Reducing hunger and poverty in environmentally sound ways; meeting basic human needs; expanding economic opportunities, increase access to safe drinking water etc; 6. Developing a global partnership for development i.e. providing access to affordable, essential drugs to rural communities (Koot and Martineau, 2005).

The scheme provided financial incentives (hardship allowance), school fees, loans facility for cars or house and assistance for post-graduate training at the end of a 3 year contract. Funds for renovation for government housing were included.

Figure 3: Criteria for health workers qualifying for the retention scheme

Description	***Category and criteria***	***Eligible candidates***
Provincial Hospitals	Districts B, C and D	Zambian Medical Consultants
Health Centers District Offices District Hospitals	Districts C and D	All Medical Officers working for The MOH under local conditions of service Zambian Medical Licentiates
Nurse Training Schools	Districts A, B and C	Zambian Nurse Tutors
Health Posts Clinics Health Centers	Districts C and D •Health Facilities without any professional staff •Health Facilities manned by one professional staff member •Health Facilities in hard-to-reach areas	Zambian Clinical Officers Zambian Enrolled Nurses Zambian Enrolled Midwives Zambian EHT employees

Adopted from Mwale 2009

CHAPTER FOUR

4.0. OBJECTIVES

4.1. Research Questions

1) What has been the experience with the health workers following the implementation of the innovative programmes aimed at increasing qualified health workers in the two districts?
2) What modifications or additional systems are needed to make them more effective?

4.2. Objectives

4.2.1. General Objective

To document the experiences and lessons learnt from implementing innovative programmes that aim at increasing access to qualified health workers in Gwembe and Chibombo districts by health workers and Ministry of Health.

4.2.2. Specific Objectives

1) To assess the problems affecting health workers in the two districts and how these are addressed in the recruitment and retention strategies
2) To assess the implementation of the recruitment and retention strategies status quo and outcome with regards to other health workers besides doctors
3) To outline lessons learnt and recommendations for effective management of the recruitment and retention strategies.

CHAPTER FIVE

5.0. RESEARCH METHODOLOGY

5.1. Study design

A case study design using qualitative approach was adopted for this study. This has been thought to be appealing because the researcher wants to gain a new perspective on the performance of the schemes/initiatives that government has put in place. However, this could not be obtained by means of statistical procedures or other means of quantification that are employed in a quantitative methodology. The Journal of Education Technology (1997), states that qualitative methods can be used to better understand any phenomenon about which little is yet known. They can also be used to gain new perspectives on things about which much is already known, or to gain more in-depth information that may be difficult to convey quantitatively.

Saeidi (2002) defines a case study as the collection of evidence around a particular instance, event or situation and the description or evaluation of it. In addition, it brings an understanding of a complex issue and can expand on what is already known or add strength to what is already known through previous research. It also brings out the viewpoint of the participants and other relevant groups of actors and the interaction between them. The study therefore, will seek to provide an insight on the performance of the initiatives/schemes and going by Stake (1995)'s definition, it is an instrumental case study "where the focus of the study is to examine a case to provide insight into an issue". This is a type of case study with the focus on a specific issue rather than on the case itself. The case then becomes a vehicle to better understand the issue (Stake, 1995).

<u>Summary of the methodology used for the secondary data used</u>

The various retention and recruitment schemes implemented in the Districts were identified through a combination of review of Ministry of Health reports and consultation with Ministry personnel. Based on the scope and objectives of each scheme, indicators of their success were developed using an outcome mapping process (Earl et al., 2001). Health workers' levels of participation in each scheme were identified as the key process indicators, while key outcome indicators were identified as participants' satisfaction with each initiative, job satisfaction, and intention to stay or leave their jobs. Turnover or net health workforce growth rates at the district level were also a key outcome indicator.

A set of instruments to measure these indicators was developed. These included the following: An interview questionnaire for health workers, Questionnaires for the district managers (in Gwembe and Chibombo), provincial health offices (South and Central, respectively), and the Ministry of Health to collect administrative data from multiple sources on flows in and out of the health workforces in each district, as well as participation levels in each scheme, focus group guides for discussions with health workers to qualitatively capture their perceptions of the various retention and recruitment schemes.

The study used convenience sampling two sample two district; Chibombo and Gwembe. These districts are reasonably close to Lusaka, have strong district leadership, have expressed interest in this work and have established working relationships with ZAMFOHR and other national stakeholders

5.2. Study Site

The researcher obtained data from the Human Resource for Health Project being conducted under the Zambia Forum for Health Research (ZAMFOHR) which was collected from Chibombo and Gwembe districts. These districts therefore were adopted as the study sites. These districts are among those that qualify for the Health workers Retention Scheme. On the districts classification system under the ZHWRS, both these districts are classified as rural, with Chibombo falling in category C (remote) and Gwembe in category D (most remote) (Mwale and Smith, 2008).

5.3. Study Population

The study population consisted of health workers comprising clinical officers, enrolled nurses, enrolled midwives, environment health technicians and lab technicians.

5.3.1. Inclusion Criteria

The study included all professional health workers in the health centers that qualify for the scheme. The health workers may or may not have been participating in the scheme; these were clinical officers, enrolled nurses, enrolled midwives, EHT employees and lab technicians. In addition recruitment and retention strategies documents released by government and reviews that may have been carried out by other people were also reviewed to gain more informed understanding of the subject. For the documents they

were restricted to those that talked about access to qualified health workers in rural areas.

5.3.2. Exclusion Criteria

The study excluded professional health workers who are on contract and also those who have been at the health facility for less than six months. Documents that talk about increasing access to health workers in urban areas will be excluded.

5.4. Sample Size

The study selected a case of innovative programmes put in place by the Government to increase access to qualified health personnel in Gwembe and Chibombo. This was analysed based on secondary data from the ZAMFOHR project, document review and key informant interviews with the Ministry of Health officials.

5.5. Sampling Method

Purposive sampling was used for document review and key informant interviews with the Ministry of Health officials based on their posts to answer the research questions. The two activities were mainly informed by the analysis of the secondary data from the two districts.

Purposive sampling was chosen because this is a strategy in which particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices. According to Patton (1990), the logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term "purposeful sampling".

5.6. Data Collection methods and tools

For secondary qualitative data, the researcher with permission from ZAMFOHR, used the data already collected from Gwembe and Chibombo for analysis. The tools that were used are the Key informant interviews and Focus Group Discussion guide

Document review of policy documents and other published and unpublished materials that reported on the initiatives/ schemes was conducted with regards to increasing access to health workers in rural and remote areas. A check list was used for the document review with the criterion of: Well covered , Adequately addressed, Poorly addressed, Not addressed, Not reported, Not applicable

5.7. Data processing and analysis

For the secondary qualitative data analysis, all data sources were transcribed verbatim and imported into QRS Nvivo 9. A detailed list of codes was developed and an iterative

coding approach taken by first coding broadly into the broad nodes and later coding finely into the child nodes. The list of codes was generated by the researcher and approved by principal investigator. All transcripts were thematically coded and analyzed.

During the data coding process memos were generated for the emerging information from the broad themes, 'Involvement in initiatives, effectiveness of the initiatives, professional development and thoughts of leaving. After coding was completed queries were generated on word frequency, text search and compound queries on specific nodes and sources.

The document review was based on the extent, to which the chosen intervention was relevant and adequate to the need, the expectations of the health workers. Relevance meant the extent to which the objectives and the elements of the intervention were consistent with health workers' needs in the rural and remote areas.

The research explored questions: (i) do the interventions respond to the problem identified? (ii) What improvements in intervention and policy design are needed, or are alternative strategies required?

5.8. Study limitations

The study planned on holding interviews with Ministry of Health on the effectiveness of the innovative programmes currently in place, however this could not take place as no

evaluation was conducted on the initiatives. The researcher was advised to refer to working documents of the Ministry where information could be obtained on the different strategies the Government had put in place and this was done.

5.9. Ethical Consideration

The main goal of this research was to gain insight on the performance of the Zambia Health Workers Retention Scheme and other initiatives that government has put in place to increase access to qualified health workers in rural areas. The research involved review of documents and secondary data analysis. The researcher ensured that documents obtained were treated with confidentiality by always locking them in a drawer. Permission was sought from (i) ZAMFOHR on the use of their HRH project data and ensure that the conditions given by them were strictly followed and (ii) Ministry of Health to access their documents. Ethical approval was also obtained from the University of Zambia Biomedical Research Ethics Committee.

CHAPTER SIX

6.0. RESULTS

6. 1. Analysis of secondary data

In the two districts, based on the data collected by the ZAMFOHR research, they were nineteen health worker retention and recruitment schemes. These are the Zambia Health Worker Retention Scheme, rural and remote hardship (salary) allowances, allowances

for housing, uniform maintenance, night duty, overtime and on-call time, professional development prioritization for rural and remote health workers, electrification/solar power and water provision, provision of transportation (motorcycle) and radio equipment provision, a graduate retention allowance for health workers with university degrees, and an allowance for workers involved with the Churches Health Association of Zambia (CHAZ), a faith-based organization.

6.1.1. Respondents Characteristics

Education

Three quarters of respondents reported a professional diploma or certification as their highest level of education. Secondary school was the next most common choice, followed by a bachelor's degree. 4% of respondents did not answer the question. Other responses options included primary school, graduate certification or diploma, master's degree, or doctoral degree; no respondents selected these options.

Profession

Nurses were the most common profession in the sample, accounting for 40% of respondents, followed by midwives at 14%. Professions other than those listed accounted for 13% of respondents. Doctors made up 7%, clinical officers 11%, environmental technicians 9%, and pharmacists 1%.

Age and Gender

The largest group of respondents by age was under 30 at 39%, followed by the 30-39 age group at 30%. 18% percent were in their forties, 13% in their fifties. Thus most

respondents were under 40, and none were under age 20 or over age 60. The sample was nearly evenly split between sexes, with 51% of respondents being male and 49% female.

6.1.2 Knowledge of and participation in the Incentives

The participants were asked about the initiatives that the Ministry of Health had put in place which helped then remain in the rural areas. The various initiatives were rural hardship allowance which was confusing with retention and remote hardship allowances. There are also night, overtime, housing, child and uniform allowances. However, the overtime, night and housing allowance were not considered as recruitment and retention allowances since all health workers were entitled to them.

Respondents seem not to have much knowledge on the existing schemes, they reported that most initiatives were known recently after the analysis by the Ministry of Health on who qualifies. Some health workers had not been getting these allowances from 2006 to 2010. Most of the participants said that they currently getting the rural hardship and housing allowances. See statements below:

P5: Liteta yes like for rural hardship allowance it used to be there sometime back but it was just removed that was in 2006, it was removed telling us that we are not entitled to rural hardship, because we were not in the rural because we were that we are near to the road, the network is there those are the reasons they were giving.

A: Mayfair lodge: Its been a bother to some of the centers, if you look at the catchment areas, we are in remote and are hard to reach areas which are risky like Chabbobboma, Chipepo, we have to use water transport to access people on the island and spend nights there. We are not sure why those centers have been left out when they are facing difficulties.

6.1.3. Involvement in Recruitment and Retention strategies

As alluded to above the retention and remote hard hardship allowance was not being received. The workers felt that they were entitled to them but when the matter was tabled with the human resources the response was that some workers were not entitled to them. The other reason why some workers were not receiving some of these allowances was the location of their health facility. For instance Liteta at one point was not considered for rural hardship allowance due to its proximity to the road. The other allowance that they workers were not getting included the car loan and child allowances, these are component of the ZHWRS.

6.1.4. Successfulness of the Recruitment and Retention strategies

There were variations in the level of participation from scheme to scheme. The schemes with the highest participation were rural hardship and uniform allowance, 80% of the respondents reported to receiving these and 69 % of them receive commuted overtime allowance. They said that this was motivating. Housing allowance was also seen to be effective only when one was staying in the institution house. Otherwise they said that the housing allowance was not enough if one was renting. They said that rented houses were expensive than the housing allowances that they received**.**

The schemes with the lowest participation were the child education and car loan components of the ZHWRS, the graduate retention allowance, and the rural professional development priority, with fewer than 5% of respondents indicating that they had participated in these schemes. Even though housing allowance was to be successful, the

quality of accommodation provided by the institution was in a bad state. They said that these houses were built a long time ago and were not in good state.

The other allowance which did not add value as reported by the respondents was the call allowance. For this one they said that only doctors were getting both in towns and rural areas. However, the complaint was that those in rural areas had no knocking off time; they worked day and night as long as there was a patient needing health care.

The respondents were also asked to indicate the level of satisfaction with each of the scheme they were involved in. the schemes with the highest level of satisfaction reported by the participants are: 1. ZHWRS salary top-up, 2. Water provision, 3. Electrification, 4. ZHWRS professional development and 5.Rural hardship allowance.

6.1.5. Improvements of the Recruitment and Retention strategies

In order to retain staff in the rural areas the respondents suggested the following:

Increments in financial and non-financial incentives

The specific initiatives mentioned are the rural hardship and housing allowances to be increased, these are the initiatives that were mentioned as the most successful.

Most of the District Rural Health Centers had no bank in their vicinity that's the works were getting their salaries from the nearby town through public transport. The workers did not like this and requested for banks or free transport. Others said if the government gave those loans it would make thing easy in term of transport.

One interesting issue was when they talked about the call allowance which was only given to the medical doctors and not the nurses. They said that the nurses should also be given since they remain with the patient the whole night and day.

Improvement in infrastructure

The accommodation should be improved by having good water and electricity supply. They suggested the construction of better houses to which the respondent from the community FGD said that they planned to mould brick for the staff houses. They suggested that for solar panels are mounted since ZESCO power supply was not consistent. They said this would also help the health facility to light up the area. In addition to this the participants requested for an improvement to the standard at the health center. They requested for things such as laboratory, mortuary, maternity, ward and toilets. Below is a suggestion made by the respondents:

R3: Chipembi observation on structure of clinic – despite huge catchment, the clinic is not big enough, so we need a department for isolated ARV & we need isolation for measles, we have no such provision, the structure is too limited and small

In order to balance up the standards the participants requested for an improvement in the schools so that their children get similar teaching standard with those in towns.

They reported also that in most cases when we talk about staff retention we refer to clinical officer, EHT, doctors and nurses, there is little talk about the people used at the community level, the so called volunteers. Interesting when the participants were asked about what should be done to improve the retention levels there was heart touching

complaints about how the community health worker (CHW), HCC, TBAs, and many others could be motivated also. See statements below from the respondents:

R2: CHW Chipembi as i said, it`s a blessed area with all of these volunteers, and when you talk about the word volunteer it means a lot of things, they work to save lives of others without pay. If we go back we know these people were trained through sacrifice, got trained only for the interests of clients, but these same volunteers have hardships. We need the Government to come here. Our community has done its part, we have trained our staff, the remaining part let the Government come back. The man in the corner stays 60km away and he comes 3-4 times a week, to bring reports and patients. We need bicycles. We need the Government to do its part.

6.1.6. Professional development Activities

According to the respondents most of the trainings and workshops were being provided by donor partners like John Snow Inc, United Nations Children's International Emergency Fund and Zambia Prevention Care and Treatment. However, the government also provided these trainings at high level. The NGOs were providing hands on workshops for key health staff like the laboratory, pharmacy and nurses. These came in the form of workshops.

The Ministry of health was reported to be offering sponsorship or refund to those who would have paid for themselves which was encouraging to the workers. Some of the reported courses that were sponsored by the Ministry of Health and the NGOs were logistic management, midwifery, psychosocial counseling and epidemic preparedness.

However, the distribution of these training were not even, the NGOs were not in all the health facilities which implied that some health workers were not accessing some of these workshops and trainings. As seen so far the government has relied more on the donor partners to assist with the professional development. This over dependence has

deprived some who have none or few donor partners. In most cases donor partners have a particular public health issue of interest in the district. As a result they will not train people in all areas of interest.

Satisfaction with the professional development

The respondents complained that the process of offering the sponsorship was too long. Some said that even when they had places in colleges or university they were denied to go to school because the process was too long. In some cases they were told by the Ministry of Health that they could not sponsor them for longer courses, say more than three months. The rule for the sponsorship which says that one has to be confirmed before they could be sent to school was prohibiting. Some health workers preferred going to the rural areas because they thought they would easily get sponsorship. They thought that the competition in rural areas was minimal. But to their surprise the situation was not the case, they were restricted by the shortage of staff in the health facilities. If they forced themselves to go to school they will be put on forced leave and to pay for themselves. The workers in the rural areas felt disadvantaged because the opportunity to access professional development was compared to those in towns. Despite the grants being small the criteria for sponsorships was not known by most of the staff. They got surprised that some were sponsored while others were not.

The above is evidenced by the responses below:

A: To some extent yes, you get more knowledge and are able to deliver the services where you

don't have expertise. Some centers are manned by people who are not qualified so when you are called you are able to get expertise on a particular expertise

P3: Like for me I applied but the response from the district was that i should wait until next year so i had to lose it.

A: On long time, it's high time the ministry had to put it clear to the health works in trying to encourage them to go back to school unlike what is happening, the process is too long if you compare competition this time with our colleagues like teachers if you go to schools most of them are in school, does that mean we don't want to go to school, we do it's just the rules that have been attached.

C: Just as they have said, going by the set grounds, there is also an issue of confirmation; the human resource says you can't go to school if you haven't been confirmed. Every now and then and the she would come and say you write the papers so that you get confirmed but nothing… : If you go to school you are scrapped off from the pay roll and if you have to apply after school, then you wonder how you would manage to support your family.

Suggested improvements to professional development

The respondents requested for the Ministry of Health to come up with training programs based on the identified bottlenecks in the District. The courses that would help improve the utilization and coverage of health services. The staff must be encouraged to go for further studies by the employers. The process for acquiring sponsorship must be shortened so that people don't lose opportunities. If more people were employed in the centers then each worker would have a to go for school without leaving the center unattended to.

The suggestions were also extended to the community health workers to be trained and updated regularly.

6.1.7. Thoughts of and reasons for leaving the District

From the discussions, the majority of the respondents expressed the desire to leave their current posting and the reasons advanced include:

- Problems with accommodation, they said that the houses were in bad state, lacked electricity were very small for bigger families; In some health facilities the electricity bills left by other staff were leveled on the new occupants a situation which was not welcomed.
- Most of these personnel went to the Districts when they were young; they got married and raised a family while in the rural area. The desire to take their children to good school becomes a challenge when the children come on school age. As a result they desire to go to places where their children can acquire descent education.
- Furthermore the lack of promotion which was linked to inadequate professional development increased the desire to leave. They said that they were disadvantaged when it came to promotion because this was mostly given to those in town. This problem was also linked to the issue of lack of sponsorships for further studies.
- Increased work overload due to staff shortage also creates a desire to leave the facility. It's a very bad circle of events that leads to each others. As a result it leads to poor outputs; no direct appreciation and respect are received even after working so hard. Consequently it makes it had for staff to stay on but leave to

other districts to see if things were different, probably the pasture would be greener out there. They felt that this will help them achieve their future plans.

- Despite living and working with some difficulties others wanted to leave because of marriage, either to join the partner or to go and search for one. There was a complained on lack of communication which made them lose contact with their loved ones. For others they were just tired of being in the rural area and wanted to move on while others they wanted to get back to their villages and settle.

Below are the references for the above statements:

P1 (Hesitation) mmm maybe we need to be promoted like other people. us here because when the promotions come they consider usually people somewhere there… haa we don't know also what is happening, otherwise when there is a promotion when there is a vacancy in town they just consider those people there. They don't consider the number of years you have served.

P3; you know I have just come, there has to be some to there is no way to be considered to go for further education so that when a position is vacant they also look at what you have achieved academically and the number of years you have served. But now since you have served so many years but you are not considered to go for training, it becomes difficult for them to consider you. But for those near the road you find that they are doing distance learning or going to college… No, it this grant thing no money they say wait wait so it this thing of wait, so I continue waiting… In town because you see am in a rural thinking that I will have a lot of incentives which are different from those that are in town, but the only one is the rural hardship which is not even enough. So when I are in town you can have others money, like businesses than wasting time in the rural.

D: Of course I think of leaving especially the place where I am, because it hinders me from a lot of things, also being a family person, I have kids, the schools they go to they not upgraded, if I stay there for a long time it means I will be spoiling my children.

D: There are a lot of accidents; the road network is not good. We are not provided with transport, we have to travel to Monze every month to get our salaries so if you have to travel

you have to use canters which are overloaded you climb on bags of maize, fridges, last week on Friday we me almost died the canter had a problem and we had to call someone to come and pick us at 24 and we reached around 01

What could change their minds

In order for the staff to stay in the rural areas they requested for an improvement of accommodation by building more houses and renovating the old houses. Others added that the housing allowance if its increases it would make a difference and make them stay. Lack of communication was a major problem in the rural areas so an improvement on this aspect was said to be good for staff retention. This included improvement of transport as in some place the terrain was rather very bad. A participant particularly from Munyumbwe further said that this affected school children during the rainy season as bridges would be impassable. The other improvement requested was the increment in the salaries and remote allowances. They also requested for the extension of the retention allowances to everyone. If the part time allowance is brought back they would motivate them to stay .See statements below:

P3I think for me it will all come back to communication system, cause I remember the time when I just came from college I had a lot of friends communication wise we were able to talk on daily basis plus my family, now ever since I came to Ipongo I have lost a lot of friends a lot of friends…You find some centers are being manned by one person, they do deliveries and what. So at least if they had to improve on staffing..

D: Munyumbwe work on the road which should include bridges– come rain season, we will be cut off from the whole country, if it rains for a week , it means you won't move meaning you stay without food because you are scared of travelling or if you are in town its starts raining you will get stuck what happens you start to eat the same food and you reach home and there is no food…. look at the weather (Hot), they travel long distance once they get there they are tired. During rainy season they stop going to school, there is a bridge that gets flooded so no school for them. When a teacher sees that it's about to rain he sends the children home.

C: Love the job – personal satisfaction. I get satisfied when I work, as much as I love the money,

6.1.8. Turnover

According the ZMFOHR Research, there was substantial turnover in the health workforces in Chibombo and Gwembe over the five-year period from 2005-2009, with annual losses ranging from 2% to 16% of the professional health workforce in each district. These losses were partially mitigated by inflows of new health workers; over this period, there was a 3% net gain of professional health workers in Chibombo and an 8% loss in Gwembe. The majority of staff losses were reported as being due to deaths, retirements, and redirections (staff moves directed by administration). However, both Districts report being dramatically understaffed, with many unfilled positions.

6.2. Document review:

6.2.1. Report on the administration of housing, rural and remote hardship allowances in the public sector by the joint government and public service unions

This document was produced by the Public Service Management Division in January 2010. The document aimed to propose to the government the options to deal with the challenges faced in the administration of rural/remote hardship and housing allowance.

Rural and Remote Hardship Allowance

The incentive was introduced to compensate Public Service employees who were deprived of the basic facilities as an inducement for them to work in rural and remote

areas. The eligibility criterion was derived and the areas clearly defined. However, the eligibility criterion is no longer appropriate as evidenced in the complaints received from the health workers. In addition, the rates for the allowances are 20 and 25 percent for the rural and remote hardship allowances respective. This however has never been reviewed and with the increase in living costs, the incentive tends not to be attractive considering that in these areas, health workers experience a lot of hardships. Also it has been observed that no consideration was made with regards to hardships unique to specific locations and terrains.

Administrative issues such as missing information in the Public Service on employees lead to delays in classifying employees thus compromising its effectiveness. According to the Report, 74 organisation units had incomplete, incorrect or not collected co-ordinates and 904 had either incorrect or no organization unit codes. New work stations such as health centers in some cases start operating before the treasury authority; this means that employees on the payroll were made to serve the facilities that were not funded. This deprives the employees the right to the allowance as their payroll area could be urban but servicing in rural/remote stations.

The document also presented a SWOT analysis of the 1994, 2007 and MoH Eligibility criteria for paying rural hardship allowance. This is presented below:

Figure 4: a SWOT analysis of the 1994, 2007 and MoH Eligibility criteria for paying rural hardship allowance

	Strengths	**Weaknesses**	**Opportunity**	**Threats**
1994 criteria	• Classification realistic by isolating the line of districts along the line of rail and districts • Easy to implement	• Mode of implementation not scientific and measured distance from district HQ instead of nearest clinic • Did not segregate rural and remote station • Distances were not verified and dependant of the judgment of interested party resulting in inconsistencies of application	• Easy to explain • Easy to address employee perception	• Easily challenged • Likely to be unsustainable in the long term • Industrial unrest due to inconsistencies and sustainability
2007 Criteria	• Scientific approach • Classification based on	•Implementation challenges due to poor	• Sustainable	• Prone to challenges as it

	identified and agreed variables • Differentiated urban, rural and remote • Only the eligible people are paid	quality of input data. •GIS measures the distance between locations in a straight line s opposed to the distance to cover to access basic facilities using normal routes. •Variables used in classifications do not take into account the level of the basic facilities in terms of quality, availability and efficiency of services		is does not address perception • Industrial unrest due to poor quality of data • Employees were suspicious about the criteria used
MoH Rural Retention Scheme	• Classifies districts based on the level of development and easy accessibility to basic facilities • Easy to implement	• Highly Subjective • No equity in classification between employees at district centers and district peripherals	• If weaknesses are addressed, it is likely to address the problem of the perception and implementation challenges	• Unsustainable industrial unrest due to lack of clear differentiation

6.2.2. Zambia Human Resource Strategic Plan 2011- 2015

This document builds on key lessons learned for the first Human Resource Strategic Plan of 2006-2010 and attempt to address all the constraining factors. The review of the 2006-2010 Strategic Plan indicated that it had been implemented to a limited extent mainly due to limited finding and limited output from the health training institutions.

The 2011-2015 Plan builds on 6 primary building blocks:

1. Service delivery
2. Human Resource for Health
3. Medical products, vaccines, infrastructure, equipment and transport
4. Health Management Information System

5. Health Care Financing
6. Leadership and Governance

The plan outlines objectives to achieve the ultimate goal for the plan under which specific interventions have been defined:

1. Increase the number of employed and equitably distributed health workforce with appropriate skills mix
2 Increase training outputs harmonized to the sector's needs
3. Improve the performance and productivity of health workers
4. Strengthen systems and structures to support HR expansion and performance

The above objectives have outlined specific intervention which if well implemented could improve the retention of health workers in rural and remote areas. These are:

Objective A:

Intervention A.1: Increase the number of the health workforce.
Intervention A.2: Redefine staff posting and establishment based on need.
Intervention A.3: Distribute human resources equitably and ensure appropriate skills mix for achieving the MDGs.
Intervention A.5: Improve conditions of service to attract and promote retention of health service providers in rural and remote facilities.

Objective B:

Intervention B.3: Improve access to pre-service programmes for candidates/ students from rural and remote areas.

Objective C:

Intervention C.2: Provide enabling and supportive learning and working environments for all health workforce in all health institutions.

Objective D:

Intervention D.2: Develop and implement a harmonized communication strategy.

The plan has also developed a clear logical framework that will be used to measure its success. This is supported by various monitoring and evaluation plan that if well implemented will held the ministry measures the success at different points and times.

6.2.3. Zambia Health Workers Retention Scheme guidelines 2012 – Scale up Plan

This Strategy was developed in 2003 as pilot with medical doctors in northern and western provinces. In 2007, the Strategy was extended to other provinces and other health cadres.

ZHWRS can be defined as an incentive scheme to attract and retain healthcare professionals, working in the public health sector, to work in the designated rural and remote areas of the country.

Objectives of the ZHWRS

To attract and retain medical professionals to the selected rural areas to provide clinical care to people in need

To Increase the number of health professional graduates by increasing the number of tutors and lecturers so that the schools can increase student intakes

The Ministry has been updating the scheme through the scale up plans, guidelines for 2012 is the second document developed to address the human resource challenges currently being faced by the health system delivery.

This Plan developed with the linkage of the Ministry of Health National Training Plan, the Training Operational Plan and Human Resources for Health Strategic Plan (2006-2010). The plan recognizes the factors that are leading to the current human resource shortages in rural areas which are similar to the ones mentioned by the health workers who participated in the study. Its main objectives are to attract and retain medical professionals in selected rural areas to provide clinical care to people in need and ii) To increase the number of health professional graduates by increasing the number of tutors and lecturers so that the schools increase the intake.

The document classifies Districts based on the level of development and easy accessibility to basic facilities. Of those cadres found in the rural and remote areas, only the Zambia Enrolled Nurses, Zambia Enrolled Midwives and Environmental Health Technicians were added to the Scheme in 2007, leaving out the Pharmacists and Lab Technicians who also felt were entitled to the same conditions as they work in the same environment.

The Plan details the incentives for the retentions scheme in terms of the different levels of cadres:

1. Individual benefits for all cadres: Monthly allowance and end of contract bonus

2. Additional benefits for selected cadres: House renovation payment (GRZ houses and mission hospitals) and vehicle and/or property purchase advance against contract; this only applies to medical officers, medical consultants and medical licentiates.

3. Facility based incentives

- Provision of solar panels for the clinic and each of the staff houses
- Provision of new medical equipments to replace obsolete items
- Improving water reticulations system (boreholes with water pumps)
- Installation of radio communication and interconnectivity
- Provision of staffing houses

The scheme has been rendered unsustainable due to the budgetary constraints in the funding envelope hence it cannot be expanded further. Once the Ministry reaches its target, then they will enroll further on the scheme.

Table 1: Targets of the scale up plan

Cadre	**Old Target**	**New Target**
Medical Consultant	30	30
Medical Doctors	120	300

Medical Licentiates	150	100
Clinical Officers	400	120
Tutors and Lectures	200	300
Nurses and Midwives	400	400
Environmental Health Technicians	250	150
Total	**1550**	**1440**

The Ministry has identified some of the problems that are being faced during the implementation process and their effects on the health workers. These are presented in the table below:

Table 2: Perceived problems and their effects

	Perceived Problems	Effects
1	Delays in processing applications (contracts, gratuity, grants and loans)	– low morale in ZHWRS eligible staff resulting in under performance – loss of revenue by deserving staff – in most cases the scheme does not pay arrears and hence revenue is lost – Physical visits by deserving ZHWRS staff at MOH resulting in HRTO losing man hours
2	Different ZHWRS contract forms in circulation	- inconsistent data captured resulting in planning bottlenecks
3	Inadequate communication between S/HRMOs and the HRTO	– physical visits by deserving ZHWRS staff at MOH resulting in concerned officers at MOH losing man hours. – Increased travel expenses on staff that frequently visit MOH-ZHWRS office

4	Insufficient collaboration between ZHWRS office and other MOH departments e.g. HR planning unit.	– Inadequate enrollment projection creating a lag between revenue and expenditure. This results in ZHWRS being indebted to staff – Inadequate representation of the scheme in working documents e.g HR strategic plan
5	Inadequate monitoring of scheme members and reporting	– Loss of funds by ZHWRS paid to undeserving staff e.g. staff on study leave – poor planning

CHAPTER SEVEN

7. DISCUSSION

Trends in Health Workforce

From the results obtained from the study, job satisfaction and consequently willingness to remain in the rural areas in influenced by a complex interplay between individual factors, living environment and working conditions. This is consistent with the trends in health workforce that were identified by WHO (2009) that have been grouped into 3 main trends:

- People are moving very strongly towards work-life balance models
- People are motivated by a complex structure of rewards, in which non-financial benefits play an increasingly important role
- People will move quickly to another job or place if their expectations are not met.

Mapping Policy Interventions

The government recognizes that health workers face a lot of challenges in rural and remote areas and as such, a number of strategies were developed to address this. This can be summed in three main categories of interventions as developed by WHO(2009):

Table 3: Categories of interventions VS the current government strategies

Category of Intervention	**Government strategies/ Programme**
Education and regulatory Intervention	- Increased exposure to rural practice (newly graduates for each cadre deployed in rural and remote HCs with temporal registration) - Targeted admission of students from rural background - Changes and improvement in training programmes for cadres to include leadership, M&E, HMIS and reporting template - Compulsory service requirement (bonding scheme) - Producing different types of health workers (substitution for task shifting – Community Health Workers)
Monetary compensation (direct And indirect financial compensation)	- Monthly allowance (ZHWRS) - Rural hardship allowance - End of contract bonus - Provision of transport (One motor bike per RHC) - Sustainable retention scheme

Management, environment and social support	- Improvement in infrastructure (Staff housing renovation and construction, solar panels for the clinic and each of the staff houses, new medical equipment to replace obsolete items, water reticulation system (boreholes with hand pumps), Installation of radio communication and interconnectivity - Improvement in the working conditions and incentives for health workers in the rural and remote areas of the country - Support for continuous professional development

Going by this, most of the problems that were identified by the health workers in the two Districts have been adequately addressed through the innovative programmes that have been put in place to some extent, since the data was collected in 2010; the Ministry of Health has come up with a number of documents that address them among them are the Zambia Health Workers Retention Scheme Scale up Plan; guideline for 2012 and the National Human Resource for Health Strategic Plan, 2011-2015. These two documents were a build up on earlier documents and considering that these earlier documents were not evaluated extensively, one cannot ascertain their effectiveness. These strategies though seem to have coherence in most cases with the problems that were identified by the respondents, One key issue identified in the 2 Districts by the health workers that is not addressed and not reported is the child education allowance. Education of the children was considered as one of the reasons for the health workers wanting to leave their current work station in the two districts.

Aligning choices of interventions with location

Findings from the two districts indicated that most of the respondents emphasized that the living and working conditions influenced their decision to stay or leave rather than the allowances and these are not addressed in the recruitment and retention schemes. This is consistent with Intrahealth Inc, who stated that health workers are more likely to remain in an organization that offers a combination of benefits to boost job satisfaction (Capacity Project 2005). These may include: i. Non-monetary incentives (e.g., housing, opportunities for training), ii. Opportunities for career advancement, iii) A supportive environment, including supportive supervision and iv) Strategies to address gender-related issues and safety concerns related to HIV/AIDS infection.

The problems mentioned are based on the socio-economic environment and this is beyond the Ministry of Health and would require broader concerted efforts with other sectors. These may include working and living conditions, access to education for children, availability of employment for spouses and insecurity.

Rural hardship and housing allowances, which are incentives that are not only applicable to health workers in rural areas but the entire public service employees were the most successful incentives in encouraging the health workers to remain in their stations implying that the retention and recruitment in the rural districts can not only be tied to Ministry of Health initiatives. The success could be also attributed to the fact that these incentives have been in place longer the Ministry of Health incentives hence well established.

Bundled Interventions

An important finding from the health workers is that no single intervention is effective, as the recruitment and retention factors are complex and intricate, the health workers mentioned increase in allowances, education opportunities and improvement in management, environment and social support such as roads, communication and education for children.

The strategies that have been developed by the Ministry of Health address both financial and non-financial incentives which are more of a sustainable plan, considering that one type of incentive especially financial can be very costly, and may not be sustainable in the long run, and there is a risk of spillover effects towards other service sectors. Bundled interventions are also in line with the WHO (2009) Global policy recommendations to increasing access to health workers in remote and rural areas through improved retention. The specific recommendations are grouped under the following: Education, regulatory, financial incentives and personal and professional support.

The turnover in the two districts is as a result of death and retirement rather than resignation and request for transfers. Van Dormel (2008) highlights turnover as partially a result of job dissatisfaction, which induces not only demotivation and absenteeism, but also intentions to quit. This therefore could to some extent say that the schemes have had some success considering the reasons for the turnover in the two districts.

With regards to sustainability, another finding is that no evaluation has been conducted by the Ministry of Health to assess the effectiveness of these strategies and to understand the factors that influence health workers' decisions at a large scale. In this regard, sustainability becomes an issue for example the ZHWRS started as pilot on medical doctors and was later extended to other cadres in 2007 and as of the 2012 guidelines, the scheme has no capacity to sustain the proposed intervention to add more cadres mainly due to financial constraints.

Lack of evaluation also entails there is no evidence to show the impact and effectiveness of interventions. There is very little rigorous evidence to support any financial, regulatory, education or management interventions to improve access to health workers in remote and rural areas. Financial incentives such as housing allowance are not reviewed overtime hence they tend to be taken over by events making them less attractive as evidenced by the responses from the health workers who reported that the housing allowance was lower compared to the rentals they pay for their accommodation. This therefore, entails that there is no documented evidence that these interventions are working or not and their scaling up is not supported by evidence and lessons learned.

CHAPTER EIGHT

8. CONCLUSION AND RECOMMENDATIONS

8.1. Conclusion

To retain staff in the rural area remain a challenges because the desire to leave was very high. The obvious question is what works and why? The answer is neither simple nor evident. In general, the effectiveness and sustainability in the long term of all these various interventions need to be better understood and demonstrated. There is very little evidence and the quality of much of what exists is weak hence its difficult to ascertain. Interventions to improve retention need to consider the local situation and context. A baseline analysis of factors influencing workers choices and preferences for location should inform the development of retention strategies for rural and remote areas what works. Monitoring and evaluation measures should be built in the strategy from the very start of the programme to evaluate effectiveness, revise polices as necessary once implementation is underway, capture valuable lessons learnt, build the evidence base, and improve understanding about how interventions work and why they work in some contexts but fail in others. Cost analysis should also be part of these regular evaluations.

Inter-sectoral collaboration is key in this area, where changes in practice and regulation

would require interventions from other sectors, such as labour, finance, local development, education etc.

8.2. Recommendations

A number of interconnected principles should underpin all efforts to improve the recruitment and retention of health workers in remote and rural areas. The choice of interventions should be informed by an in-depth understanding of the health workforce**.** This requires, at a minimum, a comprehensive situation analysis, a labour market analysis, and an analysis of the factors that influence the decisions of health workers to relocate to, stay in or leave rural and remote areas. This will help to ensure the choice of policy interventions are anchored in and tailored to the specific context of the country. Assessing options and championing interventions to improve rural retention of health workers will require HR management expertise at the central and local levels, while implementation of the chosen policies will require individuals with strong management and leadership skills, especially at the facility level. Engagement of stakeholders across several sectors is a critical element for the success of rural retention policies, as it is for any type of health system or health workforce policy.

Specifically the following recommendations are being made:

- Strengthened communication among the different structures of the Ministry to ensure that challenges such as lack of awareness on the incentives and inconsistency in the qualification and receipt of the incentives are addressed.

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- The process for the recruitment and retention should be improved. The current system for applying is too long and could be streamlined; the bureaucracies within the system currently make for slow progress.
- Increased professional and community support to rural workers encourages rural practice; it can be achieved by supportive supervision and community involvement projects, as well as by professional networks.
- The management, environment and social support should be invested in at par with other incentives to ensure a bundle of interventions. For example, mentorship programmes should be developed through telemedicine and tele-health, these could reduce the feeling of isolation of health workers.
- Periodic evaluation of the incentives in place should be conducted to ensure that they are reviewed overtime and updated accordingly.

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APPENDICES

I. Coding Structure

1. The extent to which the problems faced by the health workers in the two districts are addressed in the recruitment and retention strategies.

2. Involvement in the recruitment and retention strategies:
   i. Those that they are involved in
   ii. Those that they are eligible for but not participating

3. Which initiatives do the most to recruit and retain the health workers?
   i. What makes them so effective

ii. How could they be improved

4. Which initiative do the least to recruit and retain the health workers
i. What makes them less effective
ii. how they can be improve

5. Professional Development activities
i. How satisfied they are with the activities
ii. How they can be improved

6. Thoughts of leaving the district
   i. Reasons for wanting to leave
   ii. What could change their minds

II. Document Review Check List

Category of Intervention	**Criterion**
Education and regulatory Intervention	Well covered Adequately addressed Poorly addressed Not addressed Not reported Not applicable
Monetary compensation (direct And indirect financial compensation)	Well covered Adequately addressed Poorly addressed Not addressed Not reported Not applicable

Management, environment and social support	Well covered Adequately addressed Poorly addressed Not addressed Not reported Not applicable