

An investigation into the effectiveness of Performance Based Financing (PBF) in non-governmental organizations in Zimbabwe: A case of Results Based Financing program for health in Marondera district 2011 to 2013.

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DEDICATION

I would like to dedicate this research with love and gratitude to my wife Mary, my son Munashe, my father and my late mother for the support they rendered to me right through my studies.

DECLARATION

I Eubert R Vushoma do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the acknowledgments, references and comments included in the body of the report, and that it has not been submitted in part or in full for any other degree to any other university.

Student signature Date

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Supervisor name Signature Date

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ABSTRACT

Performance-Based Funding (PBF) has become increasingly popular in global health financing. PBF is defined as the transfer of resources for health on condition that measurable action will be taken to achieve predefined health system performance targets. Due to the apparent incentives that tailored resource transfers offer, PBF is increasingly promoted by leading global actors as a way to efficiently and effectively reform the way health systems are planned, financed, co-ordinated and steered, particularly in low- and middle-income countries. The concept of PBF started from the notion that even though resources are limited in low income countries, it must be possible to improve the effectiveness of the health sector by increasing the performance in terms of service quality, service utilization as well as improving staff motivation. World Bank is currently funding the implementation of a program called Results Based Financing (RBF) in Zimbabwe, through a NGO called CORDAID. There is limited systematic research evidence to confirm that PBF is (or is not) an effective strategy for reforming health system governance in a participatory, universally equitable and sustainable way as such, the researcher was prompted to study the concept. The main purpose of this study was to assess the effectiveness of PBF in non-governmental organizations in Zimbabwe using a case of Results Based Financing program for health implemented in Marondera district between the periods July 2011 to March 2013. The analysis from the empirical findings showed that PBF has improved health worker motivation, improved service quality and increased service utilization. The findings from this study were confirmed by findings from various studies done in other countries. The research was quantitative in nature and used self-administered questionnaires to collect primary data. Secondary data were also used to triangulate the findings from the primary sources. The main recommendation from the researcher is that donors in all the sectors of development should move away from the current “merit pay reward” system to a method that promotes challenges and accomplishments, by ensuring that recipients are paid for services after they have accomplished pre agreed targets. The researcher believed effective implementation of PBF will contribute to the reduction in donor dependency within the country and a quick recovery towards achievement of the Millennium Development Goals.

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LIST OF ACRONYMS

CI	Confidence Interval
CORDAID	Catholic Organization for Relief and Development Aid
MDG	Millennium Development Goals
MoHCW	Ministry of Health and Child Welfare
NGO	Non-Governmental Organization
OECD	Organisation for Economic Cooperation for Development
PBF	Performance Based Financing
PPS	Probability Proportionate to Size
RBF	Results Based Financing
UN	United Nations
WHO	World Health Organization
CBOs	Community Based Organizations

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CHAPTER 1

INTRODUCTION AND BACKGROUND

1.0. INTRODUCTION

Performance enhancement activities have a long history as key to public sector reform in developed countries and many researchers have devoted their attention on examining performance-based reforms, measurement, and management (Bouckaert 1992 and Kettl; Fanaras, Lieb, & Michael , 2006). Within the developing nations, performance based reforms have been promoted by international donor agencies as a way to strengthen the weak public sector performance according to the Organisation for Economic Co-operation and Development [OECD], (2005), and more recently as a way to assure tangible results from development assistance that is awarded by the donor community (Savedoff, 2011). Performance based reforms are being promoted as an alternative to the traditional financing methodologies which have been deemed outdated and unsustainable in the long run.

According to the World Health Organisation [WHO] (2006), the sub Saharan Africa carries 24% of the world disease load due to the fact that it has an inefficient, inequitable, and unresponsive health delivery system. Buchan, (2005) affirmed that the main reasons for underperforming of the health sectors are motivation and performance of health workers. Poor institutional arrangements, inefficient management practices, and unfriendly working environments have been deemed as the major contributors to low motivation causing low performance in the health delivery system (Mathaurer & Imhoff, 2006). According to UN (2007), underperformance within the health delivery

system has not only affected the capacity of health institutions but also the achievements of the Millennium Development Goals (MDGs). There is therefore need to improve sanity within health financing and Performance Based Financing for health is one of the promising methods towards efficiency improvements. Furthermore, the economic crisis being faced in the world today calls for the improvement of public performance management Brinkerhoff & Wetterberg (2012) and such financing methodologies in the distribution of financing to the poor might just be the solution.

Performance Based Financing methodology is still new in Zimbabwe and conclusive analyses on its effectiveness have not yet been done. Several studies from the Asian and other African countries have explored the advantages of Performance Based Financing as compared to the traditional “input” based” strategies which are characterized by bureaucratic planning, involves distribution of inputs and may cause “donor syndrome” within the targeted communities. However, the evidence available to support or de-campaign the methodology does not stand the test of closer inspection, as it can be questioned on several aspects mostly methodological key among them including lack of randomised controlled trials, and in most cases of a control group; differences in intervention and study design; confounding; not controlling for possible effects of known threats associated to PBF schemes; possible publication bias among other factors (Giorgio, 2008).

The study intended to evaluate the effectiveness of performance based management system in the public management sphere with an overall aim of recommending the method to other sectors of public service delivery within the NGO sector outside the health sector. The researcher evaluated how effective this method is in financing towards aid delivery specifically towards improving service utilization, service quality and improving the motivation of the health workers.

1.1. BACKGROUND TO THE STUDY

Traditionally, there was a “business as usual” approach within the public management sphere. Today, there is the new public management paradigm which according to Brinkerhoff & Wetterberg (2012), emerged in the 1980s and its ideology values a practical reform agenda that is intended to transform public sector performance through the application of market or business like mechanisms Ferlie , Ashburner, Fitzgerald, & Pettigrew (1996). According to the Organisation for Economic Co-operation and Development [OECD] (2005), such market based mechanisms have been extensively prescribed and implemented as remedies for public sector performance weaknesses in developing countries, by international donor agencies such as the IMF and World Bank structural adjustment and as other donor-supported public sector reforms. Performance Based financing is one such reform that is being financed by the World Bank in Zimbabwe towards health through the Results Based Financing program being implemented in eighteen (18) districts of Zimbabwe by Catholic Organization for Relief and Development AID (CORDAID). But questions remain unanswered of whether the financing methodology is not one of the many donor prescribed strategies to push the African continent towards “deeper poverty”.

The Millennium Development Goals (MDGs) deadline of 2015 is imminent and a lot is yet to be done by various sectors in Zimbabwe so as to achieve the targets or reach a reasonable stage towards achievement (World Health Organisation [WHO], 2006). A number of donors have been assisting the country since time immemorial and this has gone a long way towards full achievement. The type of financing within the donor community has been input based that is drugs, food aid, salaries, trainings, among other support. Input based type of financing according to Morgan (2012) has not done much in terms of achieving the donor intended goals especially within the Sub-Saharan Africa as demonstrated by the fact that the region has the highest rate of maternal deaths in the world with an average of about 900 deaths per 100,000 live births (World

Health Organisation [WHO], 2006). The sub Saharan region has the greatest number of diseases and new infections despite the fact that there is an increase in foreign donors who are “pouring” funds into the region. Input financing is now recognized to be centralized and criticized on the basis that it produced variable results dependent on willingness, capacity and motivation of the recipient providers of the service (Chowdhury, 2001). Thus there is no driver to perform since there are no incentives for such actions.

Because of dissatisfaction between investments and outputs, donors have recently developed an interest in piloting alternative funding models that have the potential to elicit more autonomy and independent management of health providers with the overall aim being to improve service to the users (Toonen, Canaven, & Riku, 2008). The World Bank through the government of Zimbabwe and CORDAID is financing a program called Results Based Financing for health program (RBF) in Zimbabwe which is different from the conventional input based type of financing. The program has been brought about by the need for more impact to be realized at project implementation level towards achievement of the internationally agreed standards.

According to Morgan (2012), Results-Based Financing for health is the name given to any program that pays money or gives goods to either patients when they take health-related actions (such as bringing their children for immunization) or to health facilities, after they have achieved pre agreed performance targets (for example paid for every child immunized at the health facility). Morgan (2012) further pointed out that there is an interchange of use of the phrases “results-based financing” and “Performance Based Financing” but the two basically describe the same concept of linking incentives with results. Performance Based type of financing takes somewhat different approach from the conventional financing models used by donor across the world and has since gained a lot of support in a number of countries especially in Africa as shall be seen in the empirical literature reviewed in chapter 2. In Zimbabwe, the Results Based Financing

(RBF) has the key objective of improving Maternal and Child health care services. It is a strategy of financing health care delivery based on results (outputs and performance), which are measured through predefined indicators. Results to be achieved and payments to be received are well laid down in contractual relationships between the different actors in the health system.

The program started in Zimbabwe in July 2011 in Marondera and Zvishavane and has since been expanded to sixteen (16) other districts across the country bringing the total number of districts to eighteen (18). The Performance Based financing model ensures that results are paid for after they have been accounted for and verified. Based on the success of the financing model in a number of countries, it has prompted the researcher to study the effectiveness of the model in the Zimbabwean setup and find out if it can be adapted to other sectors so as to recommend to policy makers. It is the understanding of the researcher that the methodology is country and context specific. Appendix 5 is a newspaper article showing some of the success of performance based financing to date and the plans for the future.

PBF is a concept derived from Performance-based Management which is a systematic approach to performance improvement through an ongoing process of establishing strategic performance objectives; measuring performance; collecting, analyzing, reviewing, and reporting performance data; and using that data to drive performance improvement (Long, 2000).

1.2. COMPANY BACKGROUND

The Catholic Organisation for Relief and Development Aid (CORDAID) is a Dutch Non-Governmental development organisation based in the Netherlands operating worldwide. The organisation fights poverty and exclusion in fragile states and areas with conflict and extreme inequality. To effectively carry out its mandate, the organisation raises funds in the Netherlands as well as from other international donors.

The overall goal of the organisation is to achieve sustainable improvement in the living conditions of the world's most poorest and marginalised communities. The organisation strives for a global village with equal opportunities; an inclusive and flourishing world community with equal access to basic services such as healthcare, food and natural resources; a world of solidarity in which the outcast and oppressed can claim equal social, economic and political rights and freedoms.

The organisation has received funding from the World Bank to implement the Result Based financing program in 18 district of Zimbabwe. This funding has enabled the organisation to reach its goal of achieving the sustainable improvement in the living conditions of the vulnerable populations in Zimbabwe. The organisation is the first to implement such a program in Zimbabwe. The results of the study will inform the management and donors if the organisation has been able to achieve its overall goal and identify areas of improvement.

1.2.1. Organization Vision and Mission

CORDAID believes in a just and inclusive world; a global society in which every person counts and in which vulnerable people and communities can actively and fully participate. The organisation believes in globalisation that offers equal opportunities;

and it is convinced that the power of solidarity between people can make this world a reality. The organisation is guided and inspired by the principles from the Catholic social teachings: human dignity, solidarity, subsidiarity (changing society from the bottom up) and the shared responsibility for common goods.

CORDAID works towards a sustainable better future for the world's poorest people and most excluded groups. This is why the organisation continues to fight poverty and exclusion in places where it is most needed and areas that are most difficult to reach: places where armed conflict, underdevelopment and natural disasters hit hardest.

The Results Based Financing program is contributing to the achievement of the organisation mission and vision. The organisation believes in a shared responsibility for common good and the analysis of the effectiveness will assist management in determining whether the organisation has been able to achieve its vision and mission.

1.3. BACKGROUND OF THE PERFORMANCE/RESULTS BASED FINANCING PROGRAM IN ZIMBABWE

Years of economic crisis in Zimbabwe has resulted in health indicators which have either stagnated or declined and is significantly off-track in relation to set MDG-targets. During the years of economic decline, investment in public health sector declined thereby affecting the quality and availability of health services especially in rural areas where a majority of the Zimbabwean population resides.

In September 2010 the World Bank (WB) issued a tender for a Performance (Results) Based Financing (PBF) program in Zimbabwe and CORDAID won the tender to implement the program. The program was meant to support the Ministry of Health and Child Welfare (MoHCW) of Zimbabwe in its effort to increase the availability, accessibility and utilization of quality health care to improve maternal and child health. The program was and still is in support of the Investment Case for Health 2010-2012 and will support high impact interventions to improve maternal and child health based on selected maternal and child health indicators. The PBF program is overseen by a National Steering Committee which is chaired by the MoHCW Permanent Secretary and includes other key staff within the ministry as well as civil society players. The PBF program directly contributes to the implementation of the Government of Zimbabwe's Results Based Management approach. In addition, the PBF provides support for implementation of MoHCW's National Health Strategy 2009 -2013.

The Performance Based Financing program supports improvements of quality of care of maternal and child health services in Hospitals and rural clinics (referred to as Rural Health Centers in this dissertation) in Zimbabwe. The institutional arrangement within the Performance Based Financing program in Zimbabwe is designed in such a way that ensures separation of functions. This is done so as to split responsibilities as a way of creating transparency and building in sufficient checks and balances to guarantee high quality service delivery (CORDAID, 2012).

1.3.1. How the program operates

The program is meant to pay for health services for poor child bearing women and children below the age of 5 years in 18 rural districts of Zimbabwe. The purchaser (CORDAID) enters into contracts with selected clinics and hospitals so that the health facilities provides services to the mothers and children on credit terms and their services will be paid for at the end of each quarter after some verifications and audits done.

Health staff at each of the contracted health facilities will share 25% of the total amount they would have earned as incentives amongst themselves as a way to motivate them. The amount shared depends on some predesigned methodology that considers responsibilities, years worked and time each worker has devoted to the supported performance measures.

To ensure quality is delivered to clients, the program also supports District managers known as District Health Executives (DHEs) with supervision allowances. The DHEs receive a performance-based subsidy that is conditional on delivering certain pre-agreed supervisory services on a quarterly basis. The role of PBF is thus on strengthening the health managers (DHEs)'s ability to supervise their subordinates through checking the quality of the services delivered and support improvements in the implementation of the agreed package of maternal and child services.

To ensure accurate reporting and payments, internal verification are done by CORDAID Health Field Officers to check whether the reported quantity of the services delivered matches with the numbers in the health management information system data reports. Selected Community Based Organizations (CBOs) conduct patient interviews to assess client satisfaction with service delivery at respective health facilities. The CBOs are groups of people identified in the community surrounding each health facility. Through these surveys, complaints and recommendations from patients are known by the program implementers and appropriate action will be taken in conjunction with the regulators.

1.3.2. Performance Measures

The program has performance measures grouped as quality and quantity. The quantity component is that which is measured by the amount of services rendered to clients in a

particular quarter. The major areas of attention for the PBF program in Zimbabwe are: Child mortality, with a focus on immunization, growth monitoring and Post Natal Care (PNC), vitamin A supplementation and under-five malnutrition. Furthermore, indicators targeted on reducing maternal mortality are also supported under the program and includes normal deliveries in institutions. Thus the quantity measures might be number of children immunized in the quarter.

The quality component would be the scores as awarded by the DHE and the CBOs and these will also determine the overall amount each facility would earn in a quarter. Thus if the program is implemented well, we should expect a situation whereby there is an increase in the motivation of staff through the 25% incentives and an improvement in both quantity and quality of care at the targeted health facilities.

1.4. RESEARCH PROBLEM

Introduction and background sections highlighted that there has been a shift in donor financing from the traditional input based to Performance Based Financing. The shift has been necessitated by the need to ensure value for money for donor funds whilst ensuring sustainability and autonomy within projects. Traditional financing models have failed in Zimbabwe as demonstrated by the fact that the country has one of the highest maternal mortalities in the world among other health problems. Furthermore, the country is in constant need for donor financing in almost every sector of the economy. Specifically within the health sector, maternal mortality increased from 555 to 960 deaths per every 100, 000 live births whilst child mortality increased from 24 to 29 per every 1000 live birth from the period 2005/6 to 2010/2011 in Zimbabwe (Zimstats, 2010/2011). Such poor performances are due to problems that are currently faced by the health delivery system in Zimbabwe key among them the lack of staff due to the freeze currently imposed on staff recruitment within the whole public service. The freeze

has led to high burn outs on existing human resources as seen for example by the deliveries attended by skilled personal which has been declining over the years as compared to neighboring country (see **Appendix 3:**).

Implementation of Performance Based Financing is expected to improve the motivation of existing health workers thereby improving service quality rendered to clients and eventually increase the number of clients (quantity) seeking services at health centers in the country. The overall aim would be to improve efficiency of the health delivery sector in Zimbabwe thereby reducing mortality to internationally acceptable levels. Therefore this dissertation addressed the management concerns by evaluating if the Performance Based Financing has been effective with regards to these three areas of focus namely Health worker motivation, service quality as well as productivity since it is assumed addressing the three areas will eventually contribute to the reduction of mortality.

Literature on the subject has been developed and some of it has been used in the Results Based Financing program proposal to justify the need for the program in Zimbabwe. However, the literature falls short due to the fact that it is from other developing countries where the financing methodology has been piloted. Review of literature in chapter 2 shows that the financing methodology is country and context specific hence the need for a Zimbabwean case study. Furthermore, methodologies used to evaluate the financing method have been criticized by various scholars as biased and not so appropriate. Therefore this dissertation addressed the literature gaps by addressing the questions whether the approach is a solution to the health sector problems affecting Zimbabwe or it might just be another donor imposed strategy in the country.

1.5. OVERALL OBJECTIVE

The overall objective of the research was to evaluate the effectiveness of Performance Based Financing in Non-Governmental organizations in Zimbabwe.

1.5.1. Specific Objectives

Specific objectives of the study were;

1. To assess the effectiveness of PBF on motivation of health workers.
2. To assess the effectiveness of PBF methodology on service quality.
3. To assess the impact of PBF methodology on service utilization.
4. To make any significant managerial recommendations based on the findings from the study.

1.6. MAIN RESEARCH QUESTION

In order to achieve the above research objectives, this study addressed the main research question: How effective is Performance Based Financing (PBF) in Non-Governmental Organisations in Zimbabwe?

1.6.1. Sub Research Questions

In order to address the main research questions, the research addressed the following four sub questions;

1. What is the effect of Performance Based Financing (PBF) on health worker motivation?
2. Does Performance Based financing result in an improvement or decrease in service quality?
3. Does Performance Based Financing contribute to an increase or decrease in service utilization?
4. What managerial recommendations can be made following the findings from the study?

1.7. RESEARCH HYPOTHESIS

From the discussion of literature review and theoretical development in Chapter 2, three hypotheses were developed to answer the identified research questions above.

1. Performance Based Financing contributes to improvement of intrinsic motivation of health workers.
2. Performance Based Financing improves service quality.
3. Performance Based Financing contributes to the increase in service utilization.

1.8. JUSTIFICATION

The findings of the research will inform senior management at CORDAID and the Zimbabwe Ministry of Health on the effectiveness of the Performance Based Financing methodology in Zimbabwe. This would contribute to the redesigning (if need be) of the Results Based Financing project currently being implemented in Zimbabwe in line with the findings of the study and the adoption of the financing option to other districts in Zimbabwe. The findings will also be used to justify for future funding from the donor community towards addressing challenges being experienced in the health sector.

This dissertation will contribute to the body of knowledge of Performance Based Financing in Zimbabwe since it is a relatively new area of study in the country. It is the hope of the researcher that the findings of this research will stimulate interest in policy makers within the Ministry of Health and Child welfare and other Ministries, the donor community, and other Non-Governmental organizations on the financing method to NGO as an area of focus that can contribute to the achievement of the internationally agreed standards within the health sector as well as other sectors. Thus the researcher hopes that the findings of this research will contribute towards refinement of the health financing policy in Zimbabwe and the possibility of adapting the financing methodologies

to other sectors. The research will also open up new areas of further research towards the adoption of the financing methodology in other sectors of public management in Zimbabwe.

Lastly the study will benefit the researcher since he has acquired an in-depth understanding of the subject of Performance Based Financing and other performance based initiatives. The researcher will put the findings from this research into practice thereby contributing to better performance of the organization and hopefully the country as a whole.

1.9. SCOPE OF RESEARCH

This study sought to evaluate the effectiveness of Performance Based Financing methodology within the Zimbabwean situation and using the Results Based Financing program implemented during the period July 2011 to March 2013 by CORDAID. The research was done using the case of Marondera District in Masholanad East Province in Zimbabwe. The selection of the districts was mainly influenced by financial constraints as it was not possible to conduct the research in the full program areas of 18 districts. Marondera district was chosen as a case due to the fact that the district is one of the pilot districts of the program in the country and has been implementing the program since July 2011 before rolling out to other districts in March 2012. Therefore some notable impact has been realized as at the time of the study to make statistically useful analysis that can conclusively be accepted. Furthermore, in terms of output of work, the district has been ranked as being on average as compared to other districts in the program hence the results will be quite representative of the total population.

The research will evaluate the effectiveness in terms of quality of outputs generated, quality of services offered to clients as well as the effectiveness of the financing methodology on health worker motivation. The above was achieved through the use of both a questionnaire-based quantitative method and a critical analysis of secondary data. The respondents of the study were senior and middle managers at each of the health facilities and the survey was triangulated using secondary data.

1.10. DISSERTATION STRUCTURE

This dissertation is organized into five chapters with **Chapter one** being the introductory chapter to the paper providing the rationale and background of the study. **Chapter two** gives an overview of the literature review where academic refereed sources in Performance-Based Management and Performance Based Financing will be reviewed. Theoretical concepts will be studied so as to come up with a conceptual framework for the study. **Chapter three** focuses on the research methodologies covering sections from the research design, sampling plan, questionnaire administration and data analysis. **Chapter Four** discusses the research findings and analysis based on the data collected. **Chapter five** concludes the discussion, with recommendations, areas for further research and research conclusion.

1.11. CHAPTER SUMMARY

This chapter gives an introduction of the topic of Performance Based Financing highlighting the justification for this research as being driven from the popularity of the financing methodology in the developing nations due the change in donors financing needs. The chapter shows the research objectives and the research questions which have led the researcher to develop three research hypotheses. The chapter closes with

a layout that is followed by this desertion from Chapter one to Chapter five giving a summary of the contents of each Chapter. Chapter two that follows is a critical review of the literature on Performance Based Financing methodology. The synthesis of the literature is the one that has led to the development of the research objectives, questions and hypothesis in this chapter.

CHAPTER 2

LITERATURE REVIEW

2.0. INTRODUCTION

This chapter is a review of the concepts, models and theories that are relevant in the field of Performance Based Financing and necessary to facilitate a comprehensive analysis and understanding of the research questions. Performance Based Financing was reviewed in terms of its purpose, history and criticisms. This was then followed by a discussion on the subject in a number of studies done in some countries where the financing option was done specifically on the health sector. Because this research is centered on non-governmental organization, this section will also look at the applicability and effectiveness of performance management and specifically Performance Based Financing to the non-corporate environment. Relevant models on the subject will be reviewed so as to build the conceptual framework towards crystallization of the research questions. Literature to do with performance based financing was analyzed with regards to motivation, service quality and service utilization within the in general and within the health delivery system. Furthermore, a methodological review will be done by looking at methodologies that have been used to review the concept in earlier studies done in other countries.

2.1. PERFORMANCE MANAGEMENT SYSTEM

The performance management system is a way of providing a measurement of the performance of the organization, the team and the individual through a variety of performance measurement techniques (Price , 2000). A performance management system typically involves “the setting of performance objectives, the measurement of performance against these objectives, the identification of developmental support and a review process to develop performance and subsequent objectives” (Brewster, Carey , Dowling, Gobler , Holland, & Warnich , 2003). The concept of performance management as concluded by Furnham (2004) is a holistic and complex measurement and management system that arose out of a combination of performance appraisals and performance measurement systems.

The world that we are in today is a knowledge economy with knowledge workers according to (Tobin, 1998). This world has been brought about by the shift in the mindset from “organization man to individualized corporation” (Bartlett & Ghoshal , 1995). The “old” way of operating and the using the “Organization Man” model will not achieve the results required for success in our constantly changing world (Bartlett & Ghoshal , 1995). According to Bartlett & Ghoshal (1995), in the “old” way tasks were well defined, controlled and measured with the overall objective being to be as consistent and reliable as machines.

Performance management systems of today are more refined and are based on the understanding that creative, and dynamic employees cannot be fitted in to a one-size-fits-all model. According to Daft (1999), the new paradigm recognizes that, as proposed by the science of chaos theory, the world is complex and it is characterized by chance and uncertainty and that a small event usually have massive and far-reaching consequences.

The main reason for having a performance management system in an organization as proposed by Brown & Armstrong (1999) is to do with the fact that people perform best when they know what is expected of them and have helped in setting the expectations. On the other hand, performance management can be regarded as anything that an organization does to improve its total performance (Brown & Armstrong , 1999). According to Brown & Armstrong (1999), performance management has four primary purposes. Firstly, performance management assists organizations in providing a basis for managing both organization and employee expectations. Secondly, a framework which facilitates the integration of corporate and individual objectives, beginning with the communication and integration of the organizations core values is established. Third, performance management systems aim to motivate towards established and clearly communicated expectations, and lastly to provide a developmental process for the organization by setting guidelines that assist in establishing future needs and outcomes.

2.1.1. The evolution of Performance Management

According to Martinez, (2000) performance management is concerned with measuring, monitoring and enhancing the performance of employees as contributors to overall organizational performance. Earlier forms of performance management were focused on performance management tools whilst modern approaches are combining various tools in order to achieve an integrated performance management system. Walters (1995) concluded that performance management was initially equated to tools such as work study, critical path analysis and staff appraisal.

The general principle of performance management is that good performance must be rewarded and bad performance must be penalized for and not tolerated but management should rather find ways of addressing it. This principle was arrived at

having considered that efficiency drivers in the public sector during the 80s and 90s contributed to emphasize the notion that performance of individuals within an organization should not be taken for granted Flynn (1993), in addition to the fact that higher productivity could only be attained through people Peters & Waterman (1982) and Handy (1976). In order to assess performance, there was need for setting up means for measuring performance in the form of performance indicators. Indicators ensure that linear comparability can be done and changes over time and between different organizations or departments can be done (Martinez, 2000).

The concepts of performance management according to Martinez (2000) emerged from commerce and industry and they slowly permeated into the public sector. Initially, attempt to evaluate performance in the public sector were done by external auditors and based on the assessment of value for money (Martinez, 2000). Eventually, achievement against set criterion was used as a basis for external accountability and this becomes a common framework for resource allocation so that organizations doing well would be rewarded with more public money Martinez (2000).

Traditionally, the emphasis of performance management was on objective setting and on appraisal of results against goals. However, there is now an understanding that performance must embrace how people get things done as well as what gets done that is inputs, process as well as outputs (Armstrong & Baron, 1998).

2.2. PERFORMANCE MANAGEMENT IN THE PUBLIC SECTOR – HEALTH SYSTEMS

Boland & Fowler (as cited by Martinez, 2000), mentioned that measurement of performance within the public sector was traditionally considered to be impossible due

to the nature of the operations within the public sector. The measurement of performance in the public sector is relatively new even though a lot of literature on performance management has been developed since the late 70s encompassing terms such as value for money, performance measures, performance indicators, performance appraisal and review and quality assurance (Martinez, 2000). The difference between public sector organizations and private (for profit) organizations is on profit maximization focus and the lack of a bottom line for public sector against which organizational performance can be measured.

Public sector performance measurements become fully established in the 80s and 90s with the appearance of the organizational and management reforms (Martinez, 2000). As such, performance management within the public sector is still in its infancy phase and according to Boland & Fowler (2000), the approaches used still need further investigation and development especially in understanding the actions arising from the measurement and evaluation process. The use of performance management in the public sector in developing nations is still limited as demonstrated by the fact that very few published sources on the subject exist. However, according to Martinez & Martineau (1996), the situation is changing as demonstrated by the fact that several studies are being done to highlight the importance of further understanding of how staff performance can become a central aspect in the management and organization of health services in the developing world.

Performance management models introduced in a number of developing countries particularly in health systems are still at the pilot phase, thus it is not clear whether the use of such models will deliver the expected outcomes in terms of overall organization performance, improved service quality and health outcomes of the targeted populations (Martinez, 2000). Martinez (2000) warns that the introduction of performance management models in underfunded health systems which have weakness in managerial capacity poses a number of ethical and practical implications.

2.3. DONOR FINANCING OPTIONS FOR NON-GOVERNMENTAL ORGANIZATIONS

The majority of NGOs are externally-funded, while others depend on locally mobilized resources. While there are many NGOs which receive funds from the development industry which consists of the world of bilateral and multilateral aid donors such as the United Nations and the World Bank, there are also NGOs which choose not to look for funds in the donor community coffers (Lewis, 2009, p. 4). According to Riddell (2007), the accurate figures for the amount of resources that NGOs receive from aid, contracts and private donations is unknown and in 2004, the figure was estimated to about \$US23 billion of total aid money, or approximately one third of total meant for aid (p.5).

According to Lewis (2009), NGOs come into existence by international donor communities to address inefficient government to government aid and ineffective development projects. NGOs were also seen as a cost-effective alternative to public sector service delivery in their efforts to liberalize economies. In the post-Cold War era the international donor community began to advocate a new policy agenda of good governance which saw development outcomes as emerging from a fair relationship between government, market, and third sector which saw NGO to be viewed as part of an emerging civil society (Lewis, 2009).

The new attention given to NGOs in the post-Cold War era brought large quantities of aid resources to NGOs, efforts at building the capacity of NGOs to improve their work, and led ultimately to important changes in mainstream development thinking and practice, including new ideas about participation, empowerment, gender, and a range of people centered approaches to poverty reduction work (Lewis, 2009). According to Cornea (1988), NGOs gained a comparative advantage over governments due to the fact that NGOs embodied a philosophy that distinguishes the centrality of people in

development policies. However, too much was expected of NGOs as they were viewed as a quick fix for development problems and this led to a criticism against NGOs by the end of the 1990s, when the evidence began to suggest that NGOs had only partially lived up to these idealistically high expectations (Lewis, 2009). At the same time, a global shift also took place among development donors towards new ways of working with developing countries governments, using mechanisms such as budget support and sector-wide approaches (Lewis, 2007). The major reason to the failure of NGOs to reach to their expected level of performance was due to the input based model of financing that was being adopted by the donor community towards NGO financing (World-Bank, 1993). Even though inputs are necessary to finance health services for example, a focus on inputs alone has failed to provide the necessary results for the achievement of the Millennium Development Goals (Rusa & Fritsche, 2006).

Traditionally, public managers and service providers were seen as faithful translators of policies crafted by politicians and funders into programs and outputs to achieve policy objectives desired by voters and beneficiaries (Brinkerhoff & Wetterberg , 2012). Thus there was a lot of trust between the funders (Donors) and implementers (NGOs) to achieve the desired policy objectives. Brinkerhoff & Wetterberg (2012) argued that because of the inherent principal-agent model of mutual high trust, there resulted in to the rise of the administrative state, bloated government, and unaccountable public sector employees. The principal agent model still exist today but the trust can be regarded as low trust and service delivery within the public sector can be regarded as a “chain of low trust principal agent relationship” which is “a network of contracts linking incentives to performance (Dunleavy & Hood, 1994). But the question remains on this new paradigm, how effective is it as a way of delivering aid, will it not compromise on the quality of service delivery, among other burning questions?

Today, NGO financing is slowly shifting from input based financing to output based financing with promising results (World Bank, 2012). Performance based financing also

referred to “output based aid” consists of a group of approaches that aim at linking incentives to performance (Eichler , 2006). For example in Haiti, a donor converted 10% of the historical budget of NGO grantees into a performance bonus provided the NGOs attain a certain predetermined performance targets (Eichler , 2006). In Afghanistan, Performance Based Partnerships agreements entered into by the Ministry of health and NGOs were NGOs could receive as much as 11% of the contract amount if they perform very well (Rusa & Fritsche, 2006). Comparison of the output based schemes to the traditional input based financing scheme found that output/performance based scheme is superior (Roberts, Hsiao, & Reich M, 2009).

Figure 2.1 shows the distinction between input and output based aid for public financing of service development with the major difference being the level of which the finances are given to the NGOs that is output based aid reimburses NGOs only after services are verified.

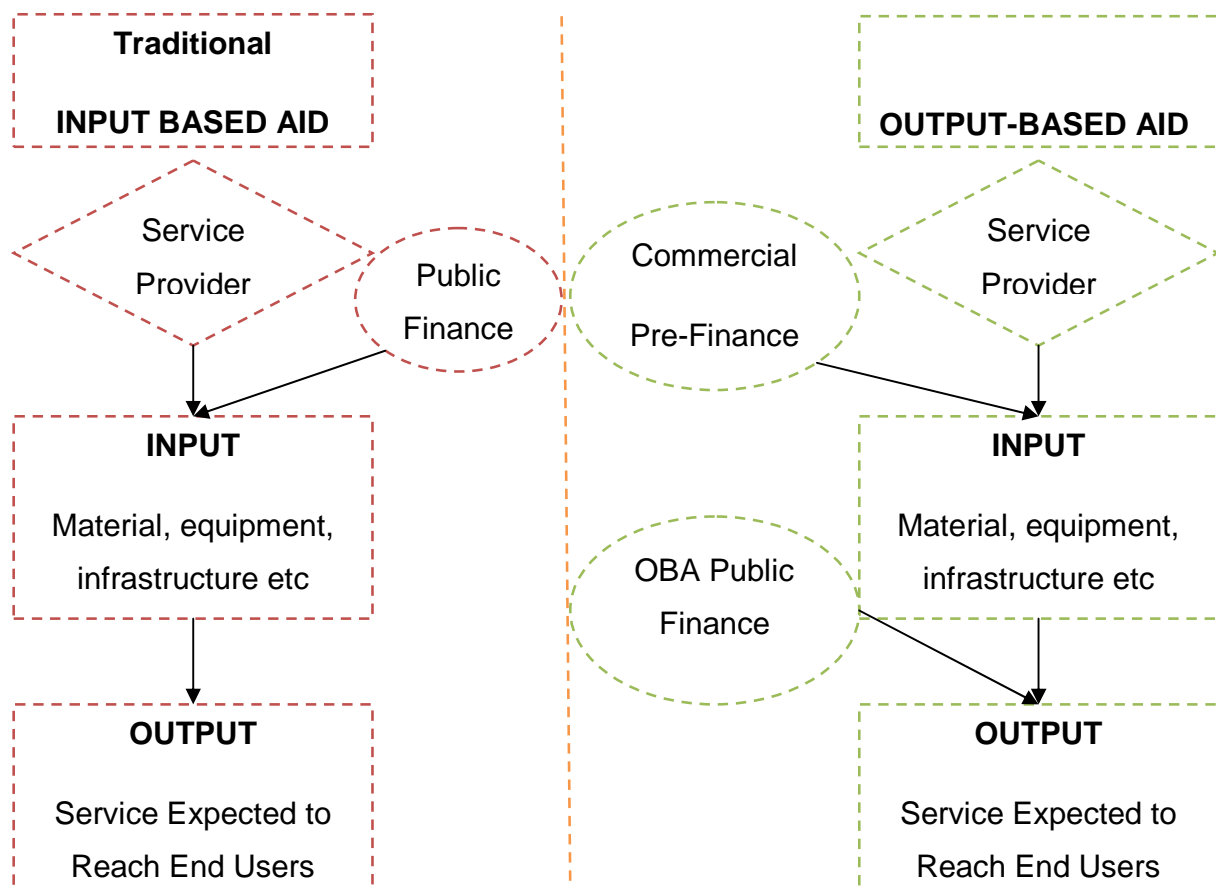


Figure 2.1: Public Financing of Service Development Input versus Output based Aid
Source (World Bank, 2013)

2.4. PERFORMANCE BASED FINANCING (PBF)

Characteristics of poor health systems in poor countries: are uneconomic use of resources; poor quality of services; and unmotivated workforce (Rusa & Fritsche, 2006).

Current financing instruments available to donors and most governments are not addressing the core causes in a very efficient manner (Rusa & Fritsche, 2006). Therefore there is need for financing methods that address the core causes in an efficient manner.

According to Rusa & Fritsche (2006), contracting and performance based financing are linked thus the literature on performance based financing is closely associated with literature on contracting, “contract theory” or “incentive theory”.

Sub-Saharan Africa has the highest rate of maternal deaths in the world with an average of about 900 deaths per 100,000 live births, according to the (World Bank, 2012). Further to the above, deaths of new born babies and children below the age of five in addition to malnutrition are also serious problems.

The major reasons to these deaths, from the perspectives of World Bank (2012: 12) are; “the poor performance of the public health care system, including low levels of physical access in some places; poor quality of care; a lack of adequate incentive structures for health workers; weak management; and inadequate data of sufficient quality to monitor and evaluate progress”. Therefore, there are a number of factors besides finance that affects the service delivery package within the health sector in sub-Saharan Africa and Zimbabwe is no exception. To ensure efficiency in the public health delivery, there is need for individuals to demand services; health workers to be motivated to deliver adequate care; and the institutions must be encouraged to make the systemic changes required to achieve health goals (World Bank, 2012). International development agencies have for decades been focusing on investing resources to strengthen poorly functioning health systems in developing countries (Toonen , Canavan, Vergeer , & Elovainio, 2009). Donor organizations have been for decades receiving large sums of grants from the international community and justify the

programs they implement by their expenditure. Such a system encourages service providers to devote all or most of their attention to securing funds and justifying inputs rather than to improving efficiency or the quality of care. Based on the above background therefore, there was a need for a financing option that ensures efficiency in funds utilization at the same time ensuring quality of care for clients is guaranteed whilst contributing to the overall Millennium Development Goals (MDGs).

The World Bank piloted a system that ensures efficiency in funds utilization and at the same time ensuring quality of care for clients is guaranteed in the form of Performance Based Financing in 1993 in low- and middle-income contexts (World-Bank, 1993). Before this, “PBF programmes have been tested at several levels: governments or donors contracting with NGOs and private sector providers to deliver specific services, central governments determining resource allocation to local governments on the basis of performance achieved, development partners releasing funding to beneficiary governments according to the targets met” (Giorgio, 2008).

The World Bank support to PBF is rooted in the New Public Management paradigms related to the need of making government bureaucracies more efficient and accountable to the populations they are serving (Kaul, 1997). Thus this system is meant to curb issues related to inefficient utilisation of donor resources whilst making sure that the resources will not be diverted to other unintended activities.

The concept works in the form of a principal-agent framework to the service delivery sector specifically targeting to the pro-poor service delivery that elaborates an accountability triangle connecting citizens/clients to politicians and policymakers, politicians/policymakers to service providers, and service providers to citizens/clients (World Bank 2004). As compared to the traditional model of financing, the concept of performance based financing ensures that all stakeholders in the project life cycle are at

least involved in one stage or the other of the project and make some decisions so as to ensure accountability and transparency in resource utilization. Performance based financing is a financing model that flips the traditional approach of financing upside down as it pays for results for example increase in number of children immunized whilst letting autonomy play in letting health workers, the community and managers on the ground decide how to achieve such intended results (World Bank, 2012). The achievement of results in this case will contribute to the providers earning more as a health facility, community or as individuals in the form of incentives. The community is thus driven to work hard to achieve better results and sustainability may be guaranteed as compared to the traditional financing models which have been criticized as the cause of “donor syndrome”.

The accountability triangle “represent interlocking and complementary principal-agent relations that constitute a service delivery accountability chain” (Brinkerhoff & Wetterberg , 2012). This direct service delivery chain created between clients and service providers (Health facilities), where the former exercise power through transactions and monitoring over the latter, constitutes the short accountability route. If such chains function effectively, clients receive the services they want and need (Brinkerhoff & Wetterberg , 2012) and hopefully the nation can achieve the intended targets.

Generally, there has been a shift in donor financing option from input financing to output financing with a need for increasing accountability, improved sustainability, and improved quality of health delivery to the poor. According to Toonen, Canavan, Vergeer, & Elovainio (2009), improvements in the health service performance can be guaranteed by a shift from traditional financing to alternative approaches such as performance based financing.

According to Eichler (2006; 22) performance-based financing is “the transfer of money or material goods conditional on taking a measurable action or achieving a predetermined performance target”. Performance Based Financing (PBF) is an approach that is designed on the concepts of performance based management with the aim to increase the quantity and quality of health care based on the theory that providing financial incentives to health workers for meeting output targets will motivate them to produce more or better outcomes and hence improve their performance (Ireland, Paul, & Dujardin, 2011). Thus Performance based financing is meant to increase quantity, quality by improving motivation for health workers.

Performance-Based Financing is a donor financing methodology that is gaining significant support as a solution to poor performance and the health worker crisis in low-income countries, particularly in Africa (Meessen, Soucat , & Sekabaranga , 2011). However, the approach also has faced a number of criticisms from a number of development practitioners as according to Toonen , Canavan, Vergeer , & Elovainio (2009), there are suggestions that the approach is not sustainable, it will not have a pro poor effect, or it may create perverse incentives. The above is based on the understanding that since donor support is not guaranteed in the long run, governments of poor countries may not be able to sustain such a financing methodology once donor support pools out. On the other hand, since PBF is a strategy that link allocation of financial resources to achievement of pre-defined performance targets, it is seen as a strategy to align the incentives of providers and purchasers of healthcare services, thereby improving health system efficiency (Giorgio, 2008). This school of thought contradicts with the one above but the sustainability of such an improvement in the health system is not mentioned; that is the improvement might be during the term of the project only.

According to Toonen, Canavan, Vergeer, & Elovainio (2009), writers in favor of performance based financing support the assertion that enhanced productivity and

quality of care are dependent on linking outputs to financial incentives. Toonen , Canavan, Vergeer , & Elovainio (2009) further asserted that *“most of the literature on performance based financing converges on two major objectives;*

1. *To increase equality, accessibility, quantity and quality of health care provided to the population.*
2. *Effective organization of health services.”* (p. 2)

However, according to Toonen , Canavan, Vergeer , & Elovainio (2009), there are potential risks identified from international literature associated with the approach and these include the possibility of health workers to inflate records so as to earn more, the temptation of health workers to offer services in their contract even though they lack the capacity among others. All these have an effect of affecting the quality of service delivery within the health delivery sector.

According to Brinkerhoff & Wetterberg (2012), the dimensions of performance within the service delivery sector can be roughly divided into two categories namely; 1) features of the outputs of the service-delivery activity, and 2) features related to the use of those outputs and to the outcomes achieved. The first dimension includes quantity, quality, cost, efficiency, and effectiveness. The latter include: utilization rates, availability, access, responsiveness, accountability, and distribution.

2.4.1. The origins of performance based financing

Performance based financing started in Rwanda in 2001. At the time of the pilot, there were several non-governmental organizations that were operating in the country paying health workers a “bonus” salary supplement (Rusa & Fritsche, 2006). Despite the bonus salary, the outputs of the health services were stagnant and in some cases even decreasing thus performance based financing was an innovative way to increase

performance of health services. The Rwandan Ministry of health rolled out the Performance Based Financing Methodology in all the district of the country. The ministry viewed performance based financing as a way to enhance quality, as a method to avoid some of the negative effects of the obligatory prepayment (input based) on the provider behavior, and also as a way of motivating the underpaid health workforce.

2.4.2. Advantages of Performance based financing

The table below summaries the advantages of performance based financing (CORDAID, 2012). The table summarizes the advantages from the perspective of four different stakeholders namely the population and local communities, Ministry of Health and Child Welfare (MoHCW) Ministry of Finance (MoF) and other government bodies, Health facilities, and aid agencies and the donors.

Table 2-1: Advantages of Performance Based Financing

PBF Stakeholder	Project	Advantages
Population and Local Communities		<ul style="list-style-type: none"> ▪ Higher Quality of Care because health care providers are motivated by PBF to improve the service quality. ▪ Better access to health care because PBF payments to facilities will lower the service fees ▪ Involvement in quality and quantity verification and able to report to independent body (purchaser)
For the MoHCW, MoF, and other government bodies		<ul style="list-style-type: none"> ▪ Increased control (power) and better outcomes of the health system. ▪ Increased legitimacy and acceptance as a result of better quality and accessibility of health care. ▪ More transparency (through checks and balances) and efficiency and thus better opportunities to attract donor funding.
For health facilities (hospitals, health centers and their staff)		<ul style="list-style-type: none"> ▪ Better working conditions (more feedback, professional supervision) ▪ Increased acceptance by the population / communities ▪ Initiatives and creative solutions are rewarded
For aid agencies and donors		<ul style="list-style-type: none"> ▪ Better health system outcomes ▪ Efficient spending of funds ▪ More transparencies through checks and balances in the system

Source (CORDAID, 2012)

2.5. EFFECTIVENESS OF PERFORMANCE BASED FINANCING

According to (Friederike, 2009), the health system of the Sub Saharan Africa are faced with severe staff shortages, low work motivation, high rates of absenteeism and an underperformance thereby threatening the achievement of the Millennium Development Goals. The reasons for the underperformance of the health sector as a whole are many however; motivation and performance of health workers are the main contributors to health care service quality, efficiency and equality (Buchan, 2005). In addition to the above, unsupportive institutional frameworks and distortive incentive structure coupled with harsh work environments and ineffective management practices also contribute to the overburden of health workers leading to low motivation (Mattaueer & Imhoff, 2006). There has been a call from a number of donors on the need for value-for-money of public funds and also the need to improve accountability as such; international donors have shifted their attention from strategies that expand health structure to strategies that strengthen the existing structures. This is a more focused approach towards the achievement of the intended impacts. This according to Custers, Hurley, Klazinga, & Brown (2008) has been done through introduction of Human Resource Management (HRM) strategies such as performance based incentives systems whose main aim is to motivate individuals, teams and organizations so as to achieve higher outputs, be efficient and also improve service quality. This form of motivation is heavily inclined to the financial motivation than the intrinsic drive by health workers to do their work as expected.

Motivational theories as well as empirical theories from literature criticize material incentives in line with sustainability of the motivation method due to the fact that health workers are not only motivated by material incentives in addition to the fact that these material incentives are not sufficient and may compromise service quality (Mattaueer & Imhoff, 2006).

Trivial but important questions that are usually asked about performance based incentives are; “*should a child be rewarded for passing an exam, or paid to read a book? .. Why do incentives work well in some contexts, but appear counterproductive in others?*” (Benabon & Tirole, 2003). These questions, if addressed well in particular contexts may address the issues on effectiveness different performance incentives in different contexts.

2.5.1. Effects of PBF on health worker motivation

There is a general belief that man has the natural tendency to be lazy with respect to work and that he is being forced by circumstances to work (Srivastava & Barmola 2011). This idea according to Srivastava & Barmola (2011) continues to create problems for the development process of the communities resulting to low productivity even though there are a lot of human and material resources. Motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior, and to determine its form, direction, intensity and duration (Pinder, 1998). According to Srivastava & Barmola (2011) job satisfaction is closely associated with motivation.

According to Toonen , Canavan, Vergeer , & Elovainio (2009), a number of studies done in PBF revealed that health worker performance does improve with the introduction of PBF. Innovations and increased levels of staff motivations have been realized from the direct observations done on health workers in a number of studies (Toonen , Canavan, Vergeer , & Elovainio, 2009). This according to Toonen , Canavan, Vergeer , & Elovainio (2009), is explained in the literature by intrinsic rewards such as the opportunity for flexibility and more autonomy in management at service level, enhanced opportunities for professional development and capacity building; and opportunities for staff empowerment through self and team directed problem solving leading to higher motivation in their work. However, Toonen , Canavan, Vergeer , &

Elovainio (2009), questions whether “such positive results are due to intrinsic motivators or stimulated by additional financing (extrinsic) investments for the health facilities”.

According to (Lazear, 2000), it is a generally agreed theme of economics that incentives promote effort and performance. In other words, rewards works as a driver towards the desired productivity or behavior. However, in psychology, the effect of rewards on behavior is much more controversial as a long-standing paradigm clash has opposed proponents of the economic view to the "dissonance theorists", who argue that rewards may actually impair performance, making them "negative reinforces" especially in the long run (Deci , Koestner , & Ryan, 1999). According to Benabon & Tirole (2003), substantial body of experimental and field evidence indicates that extrinsic motivation in the form of contingent rewards can sometimes conflict with intrinsic motivation which is the individual's desire to perform the task for its own sake.

According to Deci & Ryan, (1985), one major distinction in the field of motivation is the difference between extrinsic and intrinsic motivation and is based on the assumption that “human beings act both on their internal and external environments to be effective and to satisfy the full range of their needs. Deci & Ryan (1985) further argued that when people are intrinsically motivated, they experience interest and enjoyment in carrying out their duties whilst if people are extrinsically motivated, the behavior is caused by rewards attached to the activities being executed. The effect of financial or material incentives on intrinsic motivation has been named the “crowding out effect” and is based on the understanding that “when subjects receive material rewards for working on a variety of activities under a variety of circumstances ... their intrinsic motivation for the reward activity decreased” (Deci & Ryan, 1985).

2.5.1.1. Motivational theories

A number of motivational theorists have tabled their theories key among them Roethlisberger and Dickson Classic Study on Worker Performance, Maslow Needs Hierarchy, Skinner Behavior Analysis, Adams Equity Theory, Locke and Latham Theory of Goal Setting and Task Performance, and Ford Motivational Systems Theory. Below is a summary of a selection of motivational theories.

Roethlisberger & Dickson (as cited by Srivastava & Barmola, 2011) in his Classic Study on Worker Performance concluded that performance feedback and pay-for-performance were the specific conditions that increased and maintained the high levels of performance and the fulfillment of social needs is not necessary to explain the performance changes.

Maslow (as cited by McLeod, 2007), suggested that people are motivated to achieve certain needs and as soon as one need is fulfilled a person seeks to fulfill the next need. On the other hand, Locke & Latham (as cited by Srivastava & Barmola, 2011) on the theory of Goal Setting and Task Performance explained that some people work harder than others or perform better than others independently of their ability and knowledge due to the fact that human actions are usually directed by conscious goals and intentions. These goals influence the choices made by people and are the basis for motivation and direct behavior. According to (Locke & Latham, 1990) people must be aware of such goals and know what must be accomplished and individuals must accept the goal as something they are willing to invest their effort on before goals can influence individual or team performance.

2.5.2. Effects of PBF on Service Quality

Service quality is meeting the requirements and the needs of the customer's according to Murdick, Render & Russel (1990) whilst according to bond (2000) it is the difference

between what the customers expects and what is provided. Most of the definitions of service quality identified in literature stand out to the fact that service quality is defined from the perspective of the customers and not the organization. However, quality perceptions are usually shaped by the empathy, courtesy, and responsiveness of service employees (Zeithaml, Parasuraman, & Berry, 1990). Thus the feelings of employees with regards to their jobs will spill over to affect how their customers feel about the quality of service they receive. According to Hays & Hill (1999), employees who are motivated and empowered and have a clear vision of the importance of service quality to the organization will provide improved service which is likely to ensure greater customer satisfaction.

Performance Based initiatives are commonly encouraged as a way to improve the service delivery failures including weaknesses in service quality (Brinkerhoff & Wetterberg , 2012). According to (Brinkerhoff , 2005), the purpose of performance improvements is to increase service quantity and quality, raise utilization and access, and improve provider responsiveness and accountability. However, definitions that clearly clarify the conceptual boundaries of the performance based initiatives are often vague, and the empirical evidence base for their effectiveness is mixed (Brinkerhoff & Wetterberg , 2012).

Performance Based Financing may result in an improvement quality of information recording at health facility level since penalties will be applied on poorly recorded data (Toonen, Canavan, Vergeer, & Elovainio, 2009). This therefore means the quality of information in the Health Management Information System (HMIS) (which is the main data repository of the program) as well as monitoring and evaluation at the lowest level of the project implementation pyramid in general should improve by the introduction of the program.

The flip side of staff performance based financing is the fact that it might “crowd out” intrinsic motivation within health workers. The impact of this is that health workers may be tempted to hide out or distort some information or come up with methods that maximize results without bringing up the desired impacts Custers, Hurley, Klazinga, & Brown (2008) thereby compromising on the quality of service delivery. Furthermore, linking payments to specific performance measures referred to as “indicators” in the PBF literature has the impact of health workers compromising other indicators that are not paid for (Roberts, Hsiao, & Reich M, 2009). Since financial rewards are based on correctly completing patient records on time, health workers may neglect patients so that they complete their records on time (Luoma, 2006). Thus the quality of service delivery will be compromised since patients have to wait for longer times to receive the services. According to Armstrong (2000), if incentives are based on qualitative indicators, health workers may compromise on the quantitative indicators at the expense of qualitative indicators and the reverse is true.

Service quality within the field of health has three dimensions namely patient quality that is what the patients say they want, professional quality that is what the professionals think patients need (outcomes and processes) and management quality that is the resources to give patients what they want and need without errors or delays and within regulations and policies (Ovretveit, 2000). There is therefore need to assess service quality from the three dimensions of service quality since focusing on one will not provide a systematic view.

2.5.3. Effect of PBF on Service Utilization

Key question usually asked is on what basic prerequisites of workers’ productivity are? According to (Srivastava & Barmola, 2011) , this question cannot be answered with a definite statement, however motivation is important for enhancing level of job commitment of workers, which leads to a higher productivity of the workers. Therefore it

is then necessary for motivation of the workers to be enhanced in order to increase productivity (Srivastava & Barmola, 2011). From a literal sense, productivity is the rate of power to produce, and from management or economic point of view it is the ratio of what is produced to what is required to produce.

A review of available literature by Witter, Fretheim, Kessy, & Lindhl (2012) on the effectiveness of PBF in low- and middle- income countries was done. The review sampled studies done using methodologies that include one randomized controlled trial, two interrupted time series conducted in Asia, and six controlled before–after studies conducted in Africa. According to Witter, Fretheim, Kessy, & Lindhl (2012), in all the studies, two outcomes related to health care utilization namely institutional deliveries and antenatal care were assessed in more than one trial and inconsistent results across studies made summarizing and interpreting the evidence difficult. Thus there is no conclusive evidence to support or reject the claim that PBF increases service utilization.

According to Witter et al (2012), *“the most rigorous African study reported a moderate increase in institutional deliveries, from around 35% to 42% (...; 95% confidence interval, CI: 1–14).⁴ Findings from studies in Burundi,⁵ the Democratic Republic of the Congo⁶ and Rwanda⁷ showed disparate findings: one reported a significant increase in institutional deliveries, another found little or no change and the third showed a significant decrease.”*

In their research on the relationship between motivation and productivity, (Mason & Jugathambal, 2008) concluded that there is a positive relationship between motivation and productivity indicating an increase or decrease in motivation is accompanied by a corresponding increase or decrease in productivity. Therefore the researcher concluded from the review of literature that performance based financing increases workforce productivity hence service utilization.

2.6. GAPS IN LITERATURE ON PERFORMANCE BASED FINANCING

Most of the studies done on Performance Based Financing to date are methodologically weak and have poor internal validity and thus cannot be entirely relied on Witter, Fretheim, Kessy, & Lindhl (2012). Witter, Fretheim, Kessy, & Lindhl (2012) concluded that other robust evaluation designs should be considered in a Performance based financing evaluation study and one such is an interrupted time series, in which outcome data are collected at regular intervals during baseline and post-intervention periods for example one year before and after. Witter , Fretheim , Kessy , & Lindhl (2012) further asserted that studies should not focus exclusively on targeted performance measures.

Table 2.2 give a summary of the frequently quoted examples of PBF experiences in low- and middle-income countries the world.

Table 2.2: Summary of PBF experiences in low and middle income countries

Country	Incentive scheme	Evaluation Methodology	Results
Haiti	Performance-based contracts to NGOs delivering PHC services	Before and after measurement of coverage of immunization and prenatal visits; no control group	Vast majority of NGOs reported significant increases in coverage of multiple indicators
Rwanda	Performance-based contracts to government health facilities, with performance incentives for individual health workers	Before and after measurement of selected indicators through household surveys; no control group	62% reduction in out-of-pocket expenditure, 144% increase in institutional deliveries, 115% increase in family planning coverage
Rwanda	Performance-based contracts to government health facilities, with performance incentives for individual health workers	Before and after evaluation with no control group	53% of average individual staff productivity, 43.5% increase in consultations, 107% increase in institutional deliveries
Bolivia	Management contract awarded to an NGO, performance incentives to health workers	Before and after evaluation, with control group	55% increase in consultations, 41% increase in institutional deliveries in the study group

Source (Giorgio, 2008)

The table above is a list of researches done on the subject of performance based financing in a number of countries. The table highlights the evaluation methodology used in each case and the results from each of the studies. Generally, the studies revealed an increase in the service utilization and there are few studies that looked at the holistic package of motivation of health workers, the quality, and quantity of service delivery as a result of the introduction of the intervention.

Evidence to that mentions the impact of performance-based financing is not sufficiently available (Eijkenaar, 2013). Ireland (2011) perceived a bias towards PBF within policy-makers and academics, which has led to the overlooking of negative consequences and the sweeping attribution of positive outcomes to PBF schemes without consideration for other factors. Thus the major studies done to date on Performance Based Financing are biased towards the positives and the real impact of the financing methodology to the holistic system is still lacking thus doubting the sustainability of the financing method in the long run.

2.7. CONCEPTUAL FRAMEWORK

After a review of literature on performance based financing from a number of authors and researchers, the researcher of this dissertation summarized the discussions in a conceptual framework that was used to guide the development of hypotheses that were tested in this study.

Figure 2.2 shows the conceptual framework which was applied by the researcher to guide this study. The conceptual framework was arrived at having considered the three components identified in literature namely staff motivation, service quality and productivity. Thus effectiveness of the financing methodology was evaluated based on the assumptions developed from the conceptual framework below.

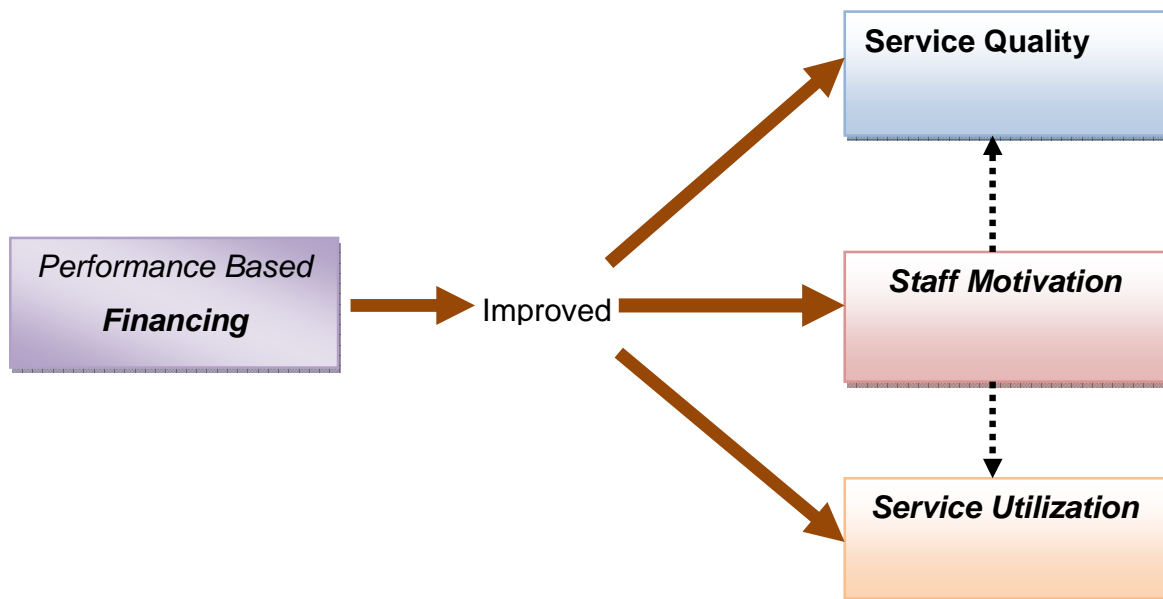


Figure 2.2: Conceptual Framework

The conceptual framework of this study laid out by the researcher therefore upholds that effective implementation of a Performance Based Financing initiative will certainly improve staff motivation which in turn improve service quality and service utilization. The researcher used the above conceptual framework to guide in the research and the variables that were assessed are levels of staff motivation, service quality, and service

utilization. The variables were assessed from the perception of respondents to the situations before and after the introduction of the program to evaluate if there is a relationship between the introduction of the program and the increase or decrease in each variable using the methodology outlined in the next chapter.

2.8. CHAPTER SUMMARY

From the review of literature, it can be concluded that Performance Based Financing is an approach to NGOs financing which is likely to increase productivity, health worker motivation thereby improving the service quality. However, gaps still exist on the effectiveness of the financing approach in the Zimbabwean context in terms of health worker motivation, productivity and service quality. Furthermore, little has been researched on the negative effects of the approach to the health delivery system. The methodologies that have been used in most of the researches for example direct observations are not very appropriate to this type of study as it is very difficult to understand issues to do with motivation of health workers or evaluate some of the unintended effects of the PBF approach hence this study has used a more rigorous approach to evaluate the effectiveness of the financing approach. A collection of international literature on the subject of performance based financing reveals that PBF may tempt health workers to inflate records or come up with non-existing patients in the records so as to earn more money. Thus they may neglect non-incentivized (un-targeted performance measures) activities thereby compromising the quality of the full package of service quality. Based on the literature review in this chapter, chapter three follows giving the methodology that will be followed in evaluating the effectiveness of the performance based financing approach. The methodology will be informed from the advantages and disadvantages of methodologies evaluated in the literature. Based on the reviewed literature from the motivational theories, there is a possibility of “crowding out” intrinsic motivation in favor of extrinsic motivation resulting in negative unintended result.

CHAPTER 3

RESEARCH METHODOLOGY

3.0. INTRODUCTION

Chapter 2 identified a gap in the current knowledge about the effectiveness of Performance Based Financing in Non-Governmental Organizations in Zimbabwe. Three hypotheses were proposed to answer research questions identified. This chapter therefore aims to outline and justify the research methodology applied for testing the theoretical model developed in Chapter 2. Collins & Hussey (2003) define methodology as the overall approaches and perspectives to the research process as a whole and as being concerned with; what data the researcher collected, why the data was collected, where the data was collected, how the data was collected, and how the data was analyzed. This chapter therefore highlights all the sections of the research methodology specifically looking at the research approaches, research design, research methods, target population, sample size and sampling procedure, data collection, data analysis techniques, limitations and ethical considerations. The chapter highlights methods of collecting and analyzing data from theoretical and practical point of views that have been used in this study. The methods were selected having considered the advantages and disadvantages of other alternatives appropriate to the context of this study.

3.1. RECAP OF PROBLEM STATEMENT

Within the donor community there is an increased interest in improving the financing models so as to ensure value for money. The donor financing options therefore are shifting from input based financing to output based financing. Literature on the effectiveness of output based financing methodology in particular Performance Based Financing in Zimbabwe is still not conclusive thus this research intends to evaluate the effectiveness of the financing option in the Zimbabwean context. Even though the approach has been endorsed by a lot of donors, questions still remain on whether the approach is the solution or it is just one of the “usual” donor imposed strategies. This research intends to evaluate the effectiveness of the financing model with regards to staff motivation, improvement in service quality as well as improvement in productivity or quantity as identified in literature.

3.2. RESEARCH PHILOSOPHY

Research philosophy relates to the development of knowledge and the nature of that knowledge Holdem (2004). The research process which begins from the methodology set employed to the type of questions asked depends on certain assumptions concerning knowledge and reality. In deciding on the exact method to approach, the researcher first clarified epistemological and ontological assumptions.

3.2.1. Epistemological Assumptions

Epistemology is the study of knowledge (Bryman & Bell, 2007). Epistemology is divided into interpretive and positivist with the former being concerned with the definite understanding of human action and not the forces that act on them whilst the latter lays

emphasis on the explanations on the understanding and explanations of human behavior (Bryman & Bell, 2007).

The researcher adopted the positivist view of epistemology in this study. Positivism advocates the application of the methods of natural science to the study of social reality and beyond and they can entail the following principles (Bryman & Bell, 2007):

- Deductive principle which states that the purpose of theory is to come up with hypotheses that can be tested and will thus allow of laws to be assessed.
- Inductive principle which states that knowledge is arrived at through gathering of facts that provide the basis for laws.
- Objective which states that science must be conducted in a way that is value free.

The researcher assessed the effectiveness of performance based financing in Non-Governmental organizations based on previous studies from where he got more knowledge on the subject. The topic is concerned with social phenomenons which are motivation, service quality and quantity from staff and client perspectives. The knowledge was developed through objective measurement of motivation, service quality and quantity. The variables studied in this research are realities that exist outside the researcher`s mind and were studied using methods of natural science. It is however important to note that there is a link between theory and research in this study hence observations were collected in a manner that is influenced by preexisting theories. Because some of the preexisting theories are not genuinely scientific, the researcher had to take an epistemology direction.

Furthermore, the researcher ensured independence between himself and the respondents as they were investigated without being influenced by the researcher. In order to make the findings of this dissertation fully dependent on the respondents, the researcher limited the interaction with the respondents to mere handing research tools

(self-administered questionnaires) to respondents. Secondary data was also used for triangulation purposes.

3.2.2. Ontological Assumptions

Social reality can be regarded as objective and foreign to the individual or may be subjective and cognitively constructed on an individual basis (Long, White, Friedman, & Brazeal, 2000). The two positions are commonly referred to as objectivism and constructivism respectively.

Objectivism is an ontological view which supports the position that social phenomenon face up to us as external facts that are beyond our reach of influence (Bryman & Bell, 2007). This therefore means that social phenomenon and the categories that we use in everyday conversations have an existence that is independent and separate from the actors (Bryman & Bell, 2007). On the other hand, constructivism is an ontology position which claims that realities are constructed by social actors (Bryman & Bell, 2007) thus social phenomenon and their meanings cannot be separated from social actors.

Effectiveness of Performance Based Financing is a social reality that the researcher believes exist in the society and external to the clients/patients and staff that perceive this reality. The researcher therefore decided to use the objectivist view of looking at the social phenomenon. The researcher is convinced that the effectiveness of PBF can be looked at with regards to staff motivation, service quality and output thus these realities can be assessed in the society by finding out how staff and clients perceive each of the factors with regards to effectiveness of PBF. The researcher used structured questionnaires in which respondents selected their responses from. Using this method, the researcher believed it is the best method which ensures objectivity in the study thereby answering research questions and attaining the research objectives. The

purpose of the research was not to understand each respondent's perception but to get a general view on whether PBF is an effective financing methodology in nongovernmental organizations. Clients and staff perceptions were classified into different levels where each respondent selected the range where they belong to by using the likert scale.

3.3. RESEARCH APPROACH

Two research approaches that involve the relationship between theory and data are inductive and deductive approaches (Bryman & Bell, 2007). Deductive approach is a dominant research approach in the natural sciences where laws present the basis of explanation, allow the anticipation of phenomenon, predict their occurrence and therefore permit them to be controlled (Collins & Hussey, 2003). Deductive approach possesses several important characteristics, the fact that there is a search to explain causal relationships between variables, concepts need to be put in a way that enables facts to be measured quantitatively, and that it is important to select samples of sufficient numerical size to enable generalization statistically about regularities in human behavior (Collins & Hussey, 2003). On the other hand, researchers of the inductive tradition are more likely to work with qualitative data and to use a variety of methods to collect these data in order to establish different views of phenomenon (Esterby-Smith, Lyles, & Lowe, 2003).

The researcher carried out a deductive study where a hypothesis was deduced on the basis of what is known about Performance Based Financing and the theoretical considerations that were subjected to pragmatic inquiry. According to Bryman & Bell (2007), hypotheses are deduced or problems are identified from theoretical concepts and then translated into operational terms implying researcher must specify how data can be collected in relation to the concepts that make up the hypothesis.

The choice of deductive approach is based on the understanding that the research problem of this study comes from existing theories. The theories used in this study have deduced a theoretical framework that shows the links PBF to staff motivation, service quality and productivity (quantity). The researcher was able to collect data on the perceptions of staff and clients with regards to the above variables that gave results to the research questions on how staff and clients perceive the effectiveness of PBF. Secondary data was also used for triangulation purposes to assess the effect of PBF on service quality and quantity. In summary therefore, the research was completed by collecting quantifiable data from respondents as well as from secondary sources so as to address the research questions.

3.4. RESEARCH STRATEGY

Quantitative and qualitative are two strategies used in research. The researcher used the quantitative strategy in this study because it is the appropriate strategy to answer the research questions and attain the research objectives. The use of quantitative strategy was also done to ensure that the research findings are assessed for validity and reliability before publication.

Quantitative strategy emphasizes quantification in the collection and analysis of data and it entails a deductive approach to the relationship between theory and research. Quantitative research assumes a natural science model of positivism and involves a view of social reality as an objective and social reality (Bryman & Bell, 2007).

3.5. RESEARCH DESIGN

A research design chosen in a research provides a framework for the collection and analysis of data. Research design chosen reflects decisions about the priority being given to; expression causal connections between variables, generalizing to larger groups of individuals than those actually forming part of the investigation, understanding behavior and meaning of that behavior in its specific social context and having a temporal appreciation of social phenomenon and their interconnections (Bryman & Bell, 2007, p. 40).

There are five types of research designs namely experimental, case study, cross sectional or social survey design, longitudinal, and comparative design (Bryman & Bell, 2007).

Case study survey design which was used in this study entails a collection of data on only one case at a single point in time on quantitative or qualitative data in connection with two or more variable which are then examined to detect the patterns of association (Bryman & Bell, 2007). To assess the effectiveness of performance base financing, the case study of Results based Financing Program implemented in Marondera District was used. Respondents were selected from health facilities in Marondera district to assess their perceptions on effectiveness of the financing methodology with regards to health staff motivation, service quality and quantity.

3.6. SAMPLING PROCESS

The sampling process that was used in this study followed the process that was suggested by Zikmund (2003) which states that the process starts by defining the target population, identifying the sampling frame within the target population, selecting the sampling method, calculating the sample size and lastly selecting the sample elements.

3.6.1. Target population

Target population is referred to as the complete group of the specific population elements relevant to the research project (Zikmund, 2003). The term population means the totality of all the objects under study whilst the units represent the specific objects within which information will be collected (Davis, 2000).

The main aim of this study was to investigate the effectiveness of Performance Based Financing in non-governmental organizations in Zimbabwe using a case of the Results Based Financing program for health in Marondera districts of Zimbabwe. The RBF Program was being implemented by 359 health facilities in 18 districts of Zimbabwe at the time of this study and 14 of the health facilities are in Marondera District. This study therefore targets the 14 health facilities in Marondera district and the totality of all the health workers at these health facilities in Marondera district as well as patients coming for treatment are the target population for this study. The district has a total of 450 health staff at all the health facilities in the district and a total of about 12731 patients (women) of child bearing age (Zimstats, 2012). Data on performance of targeted performance measures was also part of the population with regards to secondary data analysis. Health workers are disaggregated as senior management (Doctors, Hospital Administrators), middle management (Nurse in Charge, Nurse, Environmental health technicians) and other staff (General hand, Nurse Aides, Security guards). The target population for this study was staff in the middle management level who had worked in the Ministry of Health for at least two years prior to the date of conducting the study. The target population in the middle management level meeting the criterion was 276 staff. The selection of middle management was due to the fact that these are the people with information of the financing methodology both from the administration and operations point of view thus selecting senior management only would have biased the results towards administration whilst the opposite applies to selecting the low level staff. Selecting respondents who had worked in the Ministry for two or more years was meant to guarantee the selection of knowledgeable respondents before and after the

introduction of the program. Human resources records obtained at each facility were used to identify the health staff who participated in the study.

The target population for clients was women of child bearing age who would have accessed services at the facility any period before and after the introduction of the RBF program. The justification for the target population is based on the understanding that these clients were the most capable to comment on the service quality before and after the introduction of the program. The target population was women of child bearing age because the program is targeting mothers and children below the age of 5 years. Patient records at the health facilities were used to identify the clients to participate in the study.

3.6.2. Sampling Methods

Probability sampling and non-probability sampling are two major techniques of sampling (Zikmund, 2003). In probability sampling, the elements in the population have some known chance or probability of being selected as sample subjects, while in non-probability sampling the elements do not have a known or predetermined chance of being selected as subjects (Nguyen, 2010).

In this study, both probabilistic and the non-probabilistic methods were used using multi stage sampling technique. Firstly, Marondera district was purposively sampled due to the fact that the district has been implementing the program for a reasonably long time to make conclusive statistical analysis as compared to other districts in the program. Patients and staff were randomly selected from the patient and staff records respectively using simple random sampling technique.

3.6.3. Sample size and sampling elements

Selecting the actual sample units is the last stage according to (Zikmund, 2003). According to Hair, Anderson, Tatham, & Black (2006) the issue of how large a sample should be has not been entirely resolved and it depends on the statistical methods used.

In calculating the sample size, the researcher considered population parameters that the research intended to estimate, the cost associated with administering the questionnaires, knowledge that was already known on the subject, the spread or variability of the target population, and how precise the researcher wanted the final estimates to be. Population variability was regarded as low considering the fact that all the respondents are from the same district and the health staff are almost on the same level in terms of the organization structure.

Sampling elements in this study were middle management level health workers and women of child bearing age at the 14 health facilities in Marondera district. In calculating the sample size, the following formula was used.

$$n = z^2 \left(\frac{pq}{e^2} \right)$$

Source Itl (2013)

The following parameters were used to calculate the sample size and the corresponding assumptions that were put into consideration by the researcher.

- n is the sample size desired of the middle management level health staff that took part in the study.

- z is the standard normal deviate set at 1.645, corresponding to 90% Confidence Interval (CI). The researcher wanted to be 90% confident that he has estimated the margin of error to be within 0.10.
- p is the proportion of the population with desired characteristics. Since no similar study has been done using exactly the same sampling methods used by this researcher within the Zimbabwean context, the sample proportion was unknown. The researcher used a proportion of 0.5 since this is a conservative estimate that results in the largest possible sample size needed for a 90% confidence interval.
- q is $(1 - p)$ this is the proportion of the population without the desired characteristics. This is the proportion of the population not in favor of PBF or majority of whose scores on the licket scale is below the score of three.
- e is the desired margin of error set at 0.1 (10%). The researcher wanted the estimate to be within 10% margin of error.

The sample size was calculated to $n = 68$. Therefore 68 staff were sampled for the study. The sample size (n) was then distributed proportionately to the 14 health facilities in Marondera District using the following probability proportionate to size (PPS) formula:

$$n^f = \left(\frac{N^f}{N} \right) * n$$

Source (Davis, 2000)

Where; n^f is the sample size desired per each health facility N^f is the total number of health workers at each facility, N , is the total number of all the health staff in the district of Marondera within the middle level management (276), n is the sample size desired of the health workers to participate in the study (68). **Appendix 4** shows a summary of the health facilities, number of staff at each facility at the time of the study and the number of staff who took part in the study. Sixty eight (68) patients were randomly sampled from the patient registers distributed proportionately as the number of staff per each of the 14 facilities.

The researcher also analyzed secondary data on percent of pregnant women seeking services at Marondera Clinics. The data was randomly selected from the list of quantitative performance measures from the organization information repositories. The performance measure looks at the actual number of the mothers who come for service as a ratio to the actual number of mothers who are supposed to come for services when pregnant per unit time.

3.7. DATA COLLECTION METHOD

According to (Zikmund, 2003), business research techniques can be classified into four basic types namely experiments, surveys, observation, and secondary data studies. In the survey method, the researcher asks people the same questions and then records their answers (Manning, 2006). Secondary data study is one in which the researcher uses data previously collected and assembled for some project other than the one at hand (Zikmund, 2003).

Survey research were used in this study for the reasons that surveys provide a quick, efficient, and accurate means of assessing information about a population (Zikmund, 2003). Secondary data were also collected to triangulate the data collected from the survey.

According to Manning (2006), there are four basic types of surveys, namely face-to-face interviews, telephone interviews, mail and self-administered questionnaires, and web surveys. Each of these methods has its advantages and disadvantages. Self-administered questionnaires were used to collect data in the study. The researcher was prompted to use the method based the nature of the study further supported by the reasons given by (Bryman & Bell, 2007) below;

- Questionnaires are cheaper to administer especially when the sample is widely dispersed.
- Quicker to administer since a lot of people can fill the questionnaires at the same time.
- Respondents have some autonomy which limits biases as compared to interviewer administered surveys.

However, Bryman & Bell (2007), mentioned that the method has its own draw backs key among them low response rate from respondents and the fact that some questionnaires may not be completely answered. The researcher managed to overcome the drawbacks by making sure that all the respondents submitted completed questionnaires by verifying completeness of the questionnaires during submission. Instructions were clearly written so as to show clarity to respondents thereby ensuring a relatively high response rate in this study.

The study utilized both primary and secondary data to answer the research questions. Primary data was collected using self-administered questionnaires while secondary data was collected from secondary sources such as past studies on the subject and the CORDAID Health Management Information System (HMIS). The use of secondary data was done for triangulation purposes and also to have a better understanding of the effectiveness of Performance Based Financing with regards to service quality and quantity.

3.7.1. Research instruments

Two questionnaires were used in this survey for data collection namely “staff” and “clients/patients” questionnaire. The majority of questions used in the tool were adopted from the Malcolm Baldrige National Quality Award (MBNQA) criteria so as to measure

internal and external service quality in addition to staff perceptions on motivation and quantity improvements. The MBNQA criterion has been used widely as service excellence standard measured along the lines of strategic planning, leadership, information analysis, human resource, process management and customer and market focus (Chow-Chua & Goh, 2000). Additional questions were added to the questionnaires to further understand the effectiveness of the financing methodology on staff motivation and also to check on the consistency of the responses given. Not all questions on the tool were analyzed since some were meant to check on the consistency of responses.

In this study, the researcher was interested in an average score on the performance of the program at the health facilities and not a comparative study between the sampled health facilities thus the questionnaires were designed to cater for that. Basic principles and procedures of questionnaire design were followed so as to guide against biases and also improve the accuracy and validity of the collected data. Since the method used was self-administering method, the content and length of the questionnaire was of important consideration considering the ethical issues regarding medical related researches. In addition questions required for measuring relevant variables in the theoretical model identified in literature, a small section of demographic information was included so as to understand the composition of the respondents. Sensitive questions such as names of the respondents were removed and confidentiality clause was inserted to ensure quality information was collected.

The majority of questions on the questionnaire were multiple choice and close ended questions. Due to the fact that the questions were closed ended, the results of the questions were easy to analyze. A 5 point Lickert scale was used where respondents were asked to choose the most appropriate number that corresponds to their level of agreement or disagreement with a given statement. The scale of the questions with the

Lickert scale is 1 to 5 with “1” representing “Strongly Disagree” and “5” representing “Strongly agree”.

The questionnaire was designed in English since it was being administered to professionals within the Ministry of health with the minimum having a basic understanding of the English language. However, patient’s questionnaires were translated to Shona and back translated to English for clarity. The structure of the questionnaire was made as clear as possible so as to show clarity to the respondents. To ensure clarity, the questionnaire started with explanations of key terms and the purpose of the study. Furthermore, questions that address the same subject were grouped together for consistency purposes.

Out of the 11 dimensions on the MBNQA criteria list, seven dimensions namely leadership, strategic planning, customer focus, measurement, analysis and knowledge management, workforce focus, process management and performance outcomes (results) were used and a handful of questions extracted from each dimension for analysis.

3.8. DATA ANALYSIS TECHNIQUES

Data collected in this study is quantitative as can be seen from the nature of the study therefore; quantitative analyses techniques using descriptive and inferential statistics were used.

After data collection, questionnaires were checked for accuracy and for missing values. Every questionnaire was checked if respondents answered all the questions and if there

were any outliers in the data. Data from the survey was captured into the electronic format using SPSS v17.0 and analyzed using the same software whilst tabulations and graphical plots were done using MS Excel.

Data were tested for reliability using the Cronbach's alpha functionality in SPSS. According to IDRE (2013), "Cronbach's alpha is a measure of internal consistency, that is, how closely related a set of items are as a group".

All the quantitative data collected were subjected to rigorous statistical tests first to tests for normality before they were analyzed.

The analysis done on the data include simple descriptive summary statistics such as frequency distributions mostly on the demographics section of the dissertation to understand the response rate and designates of respondents among other variable. In order to ascertain whether the program has improved the quantity, time series plots were done on secondary data. Further statistical test were done to ascertain the significance of the differences between the values before and after the project. In-depth analysis was in the form of hypotheses testing using the Wilcoxon Signed rank test for the ordinal variables of Lickert Scale data and the paired Samples T test for secondary data which was in the form of ratio – that is continuous.

Wilcoxon Signed Rank test was used for the reason that the test does not assume normality in the data being tested thus it can be used when the normality assumption has been violated and when the use of the dependent t-test is inappropriate (Laerd-Statistics, 2013). The assumptions to be considered for the test therefore are fewer as compared to similar test and the risk of using a wrong method was taken care of. The

other advantage is that the Wilcoxon is used to compare two sets of scores that come from the same participants which fits the description of the data for this study.

The dependent t-test also known as the Paired-Samples T Test in SPSS is usually used to compare the means between two related groups on the same continuous, dependent variable (Laerd-Statistics, 2013). The researcher found this method very appropriate to the type of data that was under study. Furthermore, the researcher considered the assumptions that were necessary before doing the test and they all fit in the model well.

In all the analyses, the researcher decided to use the significant level (alpha) of 0.05 to guide on the decision of rejecting or accepting the null hypothesis. According to Zikmund (2003), the P value used in research also known as the calculated probability is the estimated probability of not accepting the null hypothesis of a study question whilst that hypothesis is true whilst the significant level refers to a pre-chosen probability. For all the P values less than the chosen 0.05 significance level, the researcher rejected the null hypothesis and the reverse is true.

3.9. RESEARCH ETHICS

According to Zikmund (2003), ethical considerations play a critical role in the business research process. In any research, possible forms of harm may include: physical harm, psychological abuse, stress, loss of self-esteem, legal jeopardy (Neuman, 2006). According to Manning (2006), other ethical issues that need to be considered include ensuring that participation is voluntary, no deception is involved in the research, confidentiality and anonymity are preserved, participants give informed consent, and privacy is protected.

In this study, all ethical considerations identified in literature were taken into consideration. The respondents were informed of their rights before they took part in the research; these include the fact that participation was on voluntary basis and respondents were free to withdraw their consent or discontinue participation at any time during the process without any consequence. Respondents were informed on the purpose of the study on the summary sheet including information that the results were to be used solely for the MBA dissertation and advising CORDAID management on findings from the study and they were free to ask any question at prior to accepting or submitting the completed questionnaires. Respondents were informed that the information collected was to be treated with the utmost confidentiality, anonymity and privacy. Names were not collected on the questionnaires but if respondents were interested in the summary report, then contact details were collected solely for that purpose. The responses collected were analyzed and presented as overall data and therefore no individual responses would in any way be linked to the respondent.

3.10. LIMITATIONS

Although the study was carefully planned, limitations still existed in this study and the researcher tried to eliminate the impact of the limitations on the results.

The samples selected for the research was relatively small compared to the magnitude of the program however; this is due to budgetary constraints. Care was however taken to select the most representative district in terms of the important variables of study. Within the conveniently sampled district, all the health facilities were part of the study thus eliminating possible bias associated with sampling fewer health facilities.

The Zimbabwean economy and the health sector in particular have been experiencing positive changes from a number of partners thus performance improvement and measurement was difficult to assess due to other external factors beyond the control of performance based financing. The researcher took care at the design phase of the questionnaire to ensure and interviewing stages to filter out the impact of other similar

projects that may have been implemented at the sampled health facilities during the evaluation period.

Lastly, the researcher is associated with the organization implementing the program hence may be considered to be a bias and respondents might be limited to express their feelings clearly. However, interview bias was eliminated through the use of self-administered questionnaires and also through the use of secondary data that was verified by external auditors for authenticity and validity.

3.11. CHAPTER SUMMARY

The chapter focused on the strategies the researcher used to in carrying out the study. The methodology employed in this dissertation ensures that it evaluates the financing option from all the angles identified in literature. The methodology was predominantly quantitative and for triangulation purposes, qualitative methods were used to a lesser extent. The Chapter outlined how the data was collected, the sampling procedures, the research instrument used and where and how the data was collected. The researcher highlighted that data will be predominantly analyses using non parametric statistics to test specific hypotheses and the Cronbach`s alpha for testing the internal consistency in the responses from the respondents. The next chapter will look at the presentation and analysis of the findings.

CHAPTER 4

RESULTS AND DISCUSSION

4.0. INTRODUCTION

This chapter presents the research findings of the study in response to the research questions mentioned in chapter 1. The overall objective of the research was to evaluate the effectiveness of Performance Based Financing in Non-Governmental organizations in Zimbabwe. Specific objectives being to assess the effectiveness of PBF on motivation of health workers, to assess the impact of PBF methodology on service quality and to assess the impact of PBF methodology on the number of clients seeking health services (quantity). The first part of the data analysis was to check on internal reliability of results so as to determine the credibility of the findings. To check reliability and validity of the findings, cronbach`s alpha was computed for each of the seven dimensions of the adjusted MBNQA model. In order to achieve the objectives of the study, data analysis of the study was done in two steps namely the preliminary analysis and the main analysis. The preliminary analysis consisted mainly of descriptive statistics to present data in summaries. Descriptive analysis was done mainly for demographics characteristics of the respondents and response rate. The main analyses involved hypothesis testing using the Paired Sampled T Test and the Wilcoxon Signed Rank test as advised by (Davis, 2004). Within each of the three domains of analysis (Staff motivation, service quality and quantity), the researcher selected a few questions/statements for further analysis so as to do hypothesis testing. Analysis of secondary data was also done on data obtained from secondary sources so as to support the research findings. General discussion of results then follows with a

discussion of the results linking the finding to the literature. The chapter concludes with the chapter summary of the research findings.

4.1. RESPONSE RATE

Table 4.1: Response rate

Population category	Sample size	Number of respondents	Response rate
Middle management health staff	68	57	83.8%
Patients/Clients	68	54	79.4%
Total	136	111	81.6%

Table 4.1 shows the response rate for the two types of respondents in the study namely staff and patients. Out of the 136 questionnaires that were sent out to respondents, 111 questionnaires were accurately filed and returned on time. Twenty five of the questionnaires were either incompletely filled or did not return at all from the respondents. Staff had the largest response rate as compared to clients/patients with 83.8% whilst patients recorded 79.4%. The highest response rate was on staff due to the fact that the majority of them especially in the rural wards were stationed at their work place whilst some patients who took the forms home were the ones who contributed to the highest default.

According to Fowler (2002), there is no standard minimum or maximum response. However, the more responses a researcher gets , the more likely it is that they will be able to draw statistically significant conclusions about the target population. The high response rate also ensured reliability of the findings. The researcher was able to obtain high response rate due to the fact that all the ethical considerations regarding the research were considered and authority was sought from the relevant authorities before commencing the study. Further to the above, high response rate was also attained due to the fact that all the potential respondents were informed of the deadline for completing the questionnaires.

4.2. DESCRIPTION OF RESPONDENTS

4.2.1. Classification of respondents by gender

An analysis of the respondents demographic characteristics based in gender was done and figure 4.1 shows the results. This was important for the researcher since it enabled him to verify if the results of the findings can be validated based on gender characteristics of the respondents.

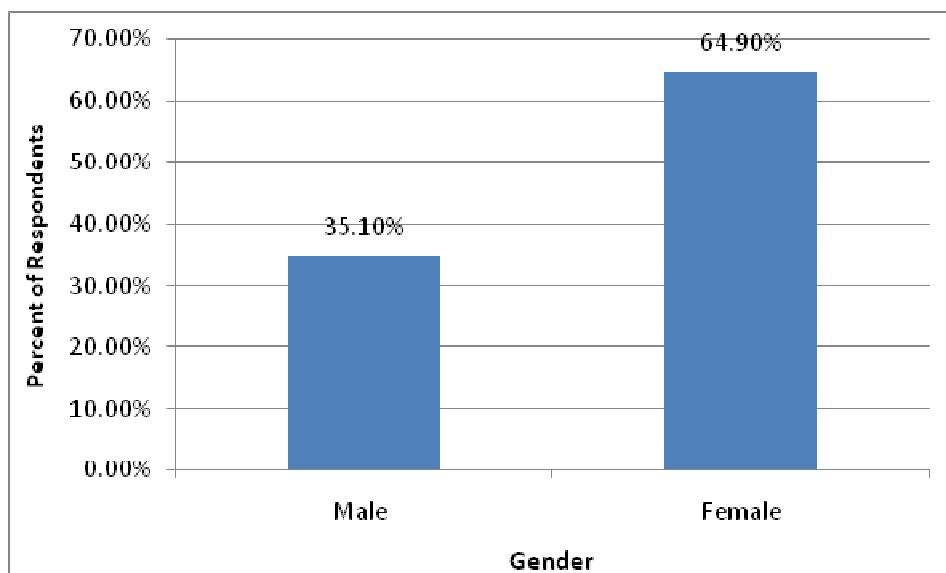


Figure 4.1: Classification of Respondents by Gender

Figure 4.1 shows that 64.90% of the respondents were male whilst 35.10% were female. More females as compared to males participated in the study due to the fact that the population was dominated by female respondents. With regards to clients, 100% of the respondents were female since the researcher deliberately targeted female for the study due to the fact that the RBF program was mostly targeted at maternal and child health.

From figure 4.1, the researcher safely concluded that the findings are valid from a gender perspective. This is so since there are generally more female professionals than males within the Zimbabwe health system thus the findings will be coming from a balanced perception

4.2.2. Classification of Respondents by Job Function

An analysis of staff by job function was done and Figure 4.2 is a summary of the findings. This analysis was done by the researcher so as to determine the extent to which the valid responses managed to cover all the targeted job functions.

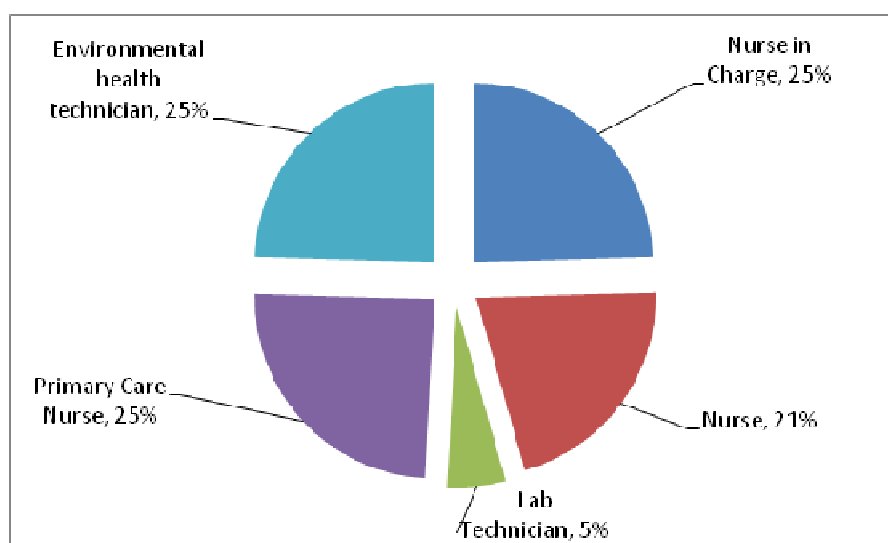


Figure 4.2: Classification of Respondents by Job Function

Figure 4.2 shows the classification of staff by job function. Generally there is a balance of respondents from the major 4 functions namely Environmental health technician,

Nurse in charge, Primary care nurse and the Nurse. The job function with the least percent was on the laboratory technicians who constituted five percent of the respondents and this was due to the fact that there are generally fewer laboratory technicians per each nurse for example. Therefore, even though there was a reduction in the sample size due to a drop in response rate, the sample remained representative in terms of number of respondents from each job function. The absolute numbers for each job function were 14 for Nurse in Charge, 12 for Nurse, 3 Laboratory Technician, 14 Primary care Nurse and 14 for the Environmental health technicians.

4.2.3. Classification of Respondents by Length of Service

The researcher wanted to understand the perception of staff with regards to service quality, service utilization and motivation after the introduction of the RBF program. Therefore, it was important to understand the length of service which the respondents have been working at their respective health facilities in order to determine if the findings were perception from experience or based on respondents thoughts. Figure 4:3 below shows the percent of respondents in corresponding length of service.

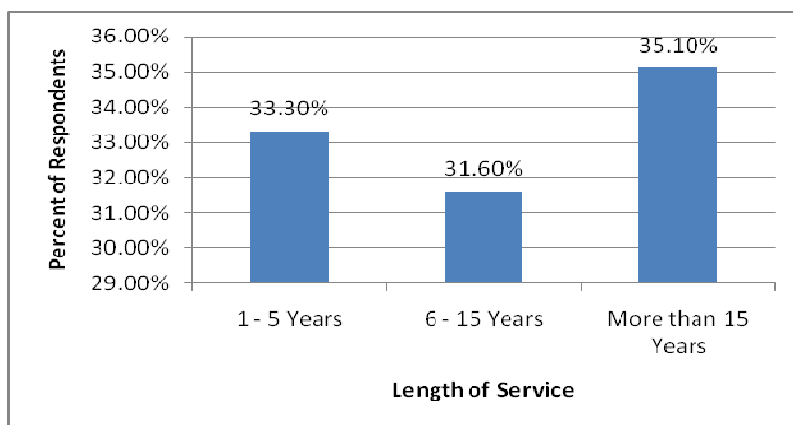


Figure 4:3: Classification of respondents by length of service

The graph shows that 35.10% of the respondents have worked in the ministry of health for more than 15 years whilst 31.60% have worked for years between 6 to 15 years and

33.30% have worked for years between 1 to 5 years. There was a freeze on recruitment of staff imposed by the government that was in place at the time of the study and has been in operation for close to one year. The freeze was deemed as the major contributory factor to more respondents in the senior category. The fact that more respondents were senior to the system gives more credibility to their responses since they have worked in situations before and after the introduction of the program.

4.3. RELIABILITY COEFFICIENT DISCUSSION

Cronbach`s Alpha was obtained so as to measure internal consistency and do reliability analysis. According to Mohsen & Reg (2011), Lee Cronbach developed the Alpha in 1951 to provide a measure of the internal consistency of a test or scale. The alpha is expressed as a number between 0 and 1. Internal consistency describes the degree to which all the items in a test measure the same concept. The number of test items, item interrelatedness and dimensionality affect the value of alpha and there are different reports about the tolerable values of alpha, ranging from 0.70 to 0.95 (Nunnall & Bernstein, 1994). Streiner (2003) recommended a maximum value of 0.9 for Cronbach`s Alpha. Factors that can cause low values of alpha include low number of questions, heterogeneous constructs or poor interrelatedness between items.

In the client`s questionnaire, the scale items were split into three dimensions namely quality of care, overall service quality and operative quality of care as listed in table 4.2 below. The Cronbach` Alpha was calculated for the perceptions of respondents for the situations before and after the introduction of the program. Firstly the alphas were calculated for each dimension with all the questions then with one question removed at a time to assess the impact of such a removal.

Table 4.2: Client Questionnaire Reliability Coefficients (Cronbach`s alphas)

Dimension	Number of items	Before RBF		After RBF		Item
		Cronbach alpha for dimension	Cronbach Alpha if item deleted	Cronbach alpha for dimension	Cronbach Alpha if item deleted	
Quality of care	10	0.663	0.544	0.76	0.716	1
			0.783		0.756	2
			0.513		0.817	3
			0.544		0.672	4
			0.603		0.657	5
			0.592		0.782	6
			0.513		0.678	7
			0.544		0.891	8
			0.603		0.728	9
			0.544		0.672	10
Overall service quality	5	0.694	0.678	0.786	0.678	1
			0.573		0.608	2
			0.587		0.782	3
			0.638		0.672	4
			0.678		0.765	5
Operative quality of care	4	0.756	0.88	0.754	0.755	1
			0.608		0.742	2
			0.617		0.754	3
			0.715		0.732	4

Table 4.3 shows the reliability analysis for the staff questionnaire. The reliability scales of the identified dimensions and the scale for each dimension that has been computed using SPSS when each item has been deleted from the dimension so as to see if the deleted is important in the model or not. Appendix 6 shows a sample SPSS output for

the leadership domain on the staff questionnaire. If an item is deleted and the alpha increases then that item is not important in the dimension the reverse is true. The alphas were computed separately before and after introduction of RBF as in the questionnaires. Total reliability scale for the study was 0.753 indicating a substantially good score considering the recommendations made by Nunnall & Bernstein (1994) above.

Table 4.3: Staff Questionnaires Reliability Coefficients (Cronbach`s alphas)

Dimension	Number of items	Before RBF		After RBF		Item
		Cronbach alpha for dimension	Cronbach Alpha if item deleted	Cronbach alpha for dimension	Cronbach Alpha if item deleted	
Leadership	6	0.802	0.742	0.783	0.831	1
			0.701		0.815	2
			0.735		0.814	3
			0.974		0.601	4
			0.968		0.599	5
			0.930		0.599	6
Strategic Planning	3	0.803	0.856	0.882	0.864	1
			0.518		0.767	2
			0.817		0.864	3
Customer Focus	10	0.811	0.798	0.815	0.815	1
			0.759		0.817	2
			0.756-		0.814	3
			0.800		0.816	4
			0.812		0.815	5
			0.780		0.813	6
			0.765		0.811	7
			0.810		0.903	8
			0.799		0.931	9
			0.839		0.815	10
Measurement,	5	0.837	0.860	0.959	0.935	1

		Before RBF		After RBF		
analysis and Knowledge management			0.775		0.950	2
			0.775		0.964	3
			0.878		0.948	4
			0.746		0.950	5
Workforce focus	5	0.950	0.968	0.540	0.365	1
			0.929		0.793	2
			0.924		0.389	3
			0.931		0.350	4
			0.935		0.164	5
Process Management	4	0.931	0.907	0.954	0.940	1
			0.935		0.945	2
			0.866		0.935	3
			0.925		0.936	4
Performance Outcomes (Results)	11	0.929	0.936	0.873	0.847	1
			0.925		0.851	2
			0.917		0.858	3
			0.915		0.848	4
			0.931		0.851	5
			0.924		0.840	6
			0.921		0.843	7
			0.927		0.865	8
			0.919		0.875	9
			0.914		0.908	10
			0.917		0.879	11

Generally, all the dimensions have a reliability score above 0.7 as shown in tables 4.2 and 4.3 above except for workforce which had an alpha of 0.540. The dimension is highly inconsistent considering the scale of the alpha and this is likely due to the small number of items used in the dimension.

The majority of the Cronbach`s Alpha reliability coefficients are above 0.7 and according to Nunnall & Bernstein (1994), a tolerable range for alpha should be in the range of 0.70

to 0.95. As suggested by Streiner (2003), dimensions with low number of questions had a lower alpha as compared to those with more questions.

4.4. SUMMARY OF RESEARCH FINDINGS

This section gives an analysis of the research findings based on the following research questions as specified in chapter 1;

1. What is the effect of Performance Based Financing (PBF) on health worker motivation?
2. Does Performance Based financing result in an improvement or decrease in service quality?
3. Does Performance Based Financing contribute to an increase or decrease in service utilization?

Descriptive statistics, time series analysis as well as hypothesis techniques were used by the researcher so as to make statistically sound conclusions on the findings of this study.

4.4.1. Performance Based Financing and Staff Motivation

The researcher intended to assess the effectiveness of PBF on motivation of health workers. This was done through asking staff a total of seven (7) statements on the questionnaire to assess the level of staff motivation either directly or indirectly. Frequency counts were done on motivational questions before and after the introduction of the RBF program whilst further analysis was done through hypothesis testing. Four questions which directly asked motivational issues were filtered for further analysis. The statements are “staff Motivation has improved”, “we have a well-developed staff performance management system to reward high performers”, “employee satisfaction

has increased” and “level of motivation to assist the Health Facility/department in meeting its objectives”

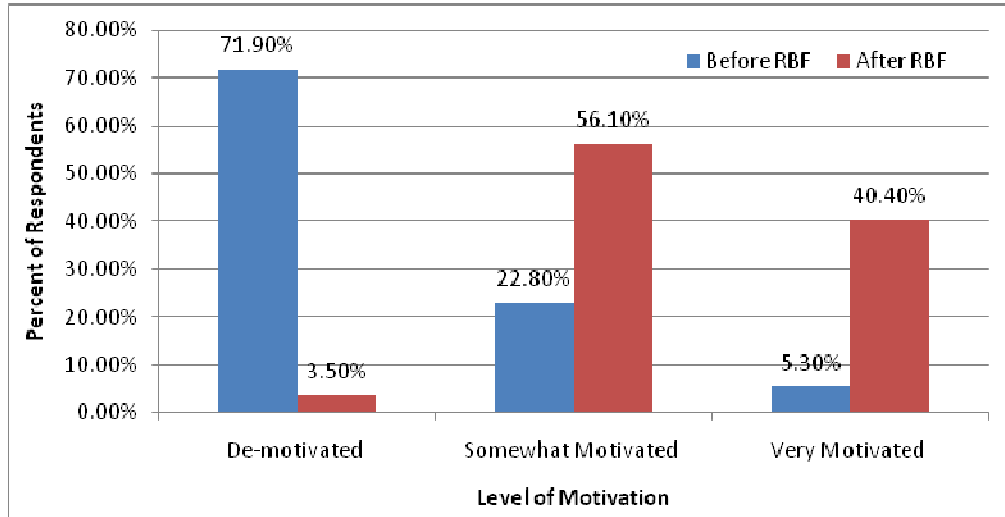


Figure 4:4: Level of Staff Motivation before and after the introduction of the RBF program

Figure 4:4 shows the level of staff motivation from the middle level management perspectives before and after the introduction of the RBF program. From the figure above, 71.90% of the respondents were de-motivated with work and the work environment before the introduction of the program. Drivers of the poor motivation amongst health workers were poor remunerations and lack of performance incentives. After the introduction of the RBF program, staff perceived that their motivation has improved as seen by the increase in bars for somewhat motivated and very motivated even though the bar for somewhat motivated is bigger as compared to that for very motivated after the RBF program. It is important to know that there are some staff members (5.30%) who were motivated to work before the introduction of the RBF program due to intrinsic motivation as mentioned by Deci & Ryan, (1985). Such intrinsic motivation is inherent within staff and these are the people who are satisfied with their job despite the fact that they receive or do not receive incentives.

4.4.1.1. Staff Motivation has improved

To authenticate the findings statistically, the research researcher tested hypothesis using the Wilcoxon Signed Rank test. The researcher verified the assumptions necessary to perform the test which according to Laerd-Statistics (2013), the Wilcoxon Signed Rank test is only appropriate if the following assumptions are met.

1. The dependent variable should be measured at the ordinal or interval/ratio level.
2. The independent variable must consist of two categorical, "matched pairs" or "related groups".

The researcher tested the hypothesis whether “the RBF program cause a statistically significant change in health worker motivation”.

Table 4.4 below is the SPSS outputs which show the analysis of the test statistic for testing the hypotheses listed above.

Table 4.4: SPSS output for Wilcoxon signed Rank test – Staff Motivation

Descriptive Statistics									
	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles			
						25th	50th (Median)	75th	
staff Motivation has improved Before	57	2.79	1.436	1	5	1.00	3.00	4.00	
staff Motivation has improved After	57	4.49	.782	3	5	4.00	5.00	5.00	

Wilcoxon Signed Ranks Test

Ranks			
	N	Mean Rank	Sum of Ranks
staff Motivation has improved After - staff Motivation has improved Before	9 ^a	9.50	85.50
Negative Ranks	39 ^b	27.96	1090.50
Positive Ranks	9 ^c		
Ties			

Total	57	
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- a. staff Motivation has improved After < staff Motivation has improved Before
- b. staff Motivation has improved After > staff Motivation has improved Before
- c. staff Motivation has improved After = staff Motivation has improved Before

Test Statistics^b

	staff Motivation has improved After - staff Motivation has improved Before
Z	-5.216 ^a
Asymp. Sig. (2-tailed)	.000

- a. Based on negative ranks.
- b. Wilcoxon Signed Ranks Test

Since the p value is less than 0.05, the researcher rejected the null hypothesis in favor of the alternative and safely concluded that health worker motivation has indeed changed from the perception of senior management.

The outputs also show that 39 out of the valid sample of 57 respondents scored a higher score towards the question after the introduction as compared to before the introduction whilst nine scored a score which shows that the PBF did worse with regards to staff motivation improving. Nine of the respondents scored the same score for their perception on before and after the introduction of the program. These respondents remained on the conservative side and they neither agree nor disagree to whether the program has improved or not improved staff motivation with regards to the question "staff motivation has improved". Further to the above, the mean for positive ranks was 27.96 which were higher as compared to that for negative ranks which was at 9.50. This therefore implies that the introduction of the program has resulted in a change in an improvement in the improvement in staff motivation.

4.4.1.2. We have a well-developed staff performance management system to reward high performers

SPSS outputs for the Wilcoxon Signed Ranks test are as shown in appendix 7. The researcher tested the hypotheses whether “the RBF program contribute to the availability of performance management systems to reward performance”.

From the SPSS output, the p value is 0.0000 which is less than 0.05 implying that there is a lot of evidence to reject the null hypothesis in favor of the alternative hypothesis. Therefore the researcher concluded that the introduction of the RBF program has to a certain extent contributed to the availability of performance management systems to reward performance to best performers.

4.4.1.3. Employee satisfaction increased

SPSS outputs for the Wilcoxon Signed Ranks test are as shown in appendix 7. The researcher tested the hypotheses if “the RBF program caused a statistically significant change in employee satisfaction”.

From the SPSS outputs, the p value is 0.0000 which is far less that 0.05 implying that there is need to reject H_0 in favor of the alternative hypothesis. Therefore the researcher concluded that the introduction of the RBF program has to a larger extent contributed to the improvement in employee satisfaction with their work and their working environment.

4.4.1.4. *Level of motivation to assist the Health Facility/department in meeting its objectives*

SPSS outputs for the Wilcoxon Signed Ranks test are as shown in appendix 7. The researcher tested the hypotheses whether “the RBF program contributed to the change in health worker motivation towards meeting health facility/department objectives”.

The p value under the question is 0.0000 which is less than 0.05 implying that we can reject the null hypothesis in favor of the alternative hypothesis. Therefore the researcher concluded that the introduction of the RBF has to a larger extent contributed to an increase in health worker motivation to assist their facilities in meeting their preset objectives.

4.4.2. Discussion of results – Staff motivation

Statistically, the researcher has found out that Performance Based Financing has indeed improved staff motivation. Two direct questions on motivations namely “staff motivation has improved” and “level of motivation to assist health facility/department in meeting objectives” proved beyond doubt that the financing methodology has indeed improved staff motivation.

According to Singh & Tiwari (2011), motivation and Job Satisfaction have a strong positive correlation. Job Satisfaction is a collection of favorable or unfavorable emotions or feelings with which employees view their work (Singh & Tiwari, 2011). Job satisfaction is so important in that lack of it usually leads to exhaustion and reduced organizational commitment and is a predictor of quitting a job (Moser, 1997). From the

findings therefore there is an improvement in staff motivation since job satisfaction has increased.

According to Singh & Tiwari (2011), motivation and Job Satisfaction are usually affected by economic variables. Akintoye (2000), argued that money remains the most major motivational strategy for employees. On the other hand, according to the Maslow's needs hierarchy, factors that motivate an individual keep on changing as one climbs the ladder of age and maturity thus there is need for continuous motivation. Singh & Tiwari (2011) concluded that one of the important factors that lead an employee to achieve his or her goal is the drive and this drive is known as motivation. The drive comes from external and internal sources and when managers identify what drives the people working for them, they can tailor make assignments and rewards to what makes these people to be continuously motivated. From the findings, there is enough evidence to suggest that health facilities have put in place performance management systems to reward high performers. Such measures have contributed to the improvement of staff motivation and job satisfaction.

4.4.3. Performance Based Financing and Service Quality

The second objective of the researcher was to assess the impact of PBF methodology on service quality. Service quality is best measure from the internal and external/client perspective according to (Ovretveit, 2000). The researcher therefore assessed service quality from the perspectives of the clients as well as from the perspectives of the staff. Toonen, Canavan, Vergeer, & Elovainio (2009) asserted that PBF assumes that service quality within the health service delivery will improve as a result of appropriate investment in organizational functioning contributing to improved health worker motivation therefore resulting in improved service quality.

4.4.3.1. *Internal perspective*

From the internal perspective angle, the researcher tested the hypothesis for two key statements on the questionnaire namely “we place patients first” and “we understand who our customer is”. The researcher tested the following hypotheses for the two statements.

We place patients first

The researcher tested the hypothesis whether “the RBF program cause a statistically significant change in the way staff perceives patients”.

We understand who our customer is

The researcher tested the hypothesis whether “the RBF program cause a statistically significant change in the way health workers understand who their customers are”.

SPSS output for testing the hypotheses with regards to the statements above are as shown in Appendix 8. The results show that for the two statements, the p values were less than 0.05 suggesting that the null hypotheses for the two cases were rejected. The researcher therefore concluded that there is an improvement in the rate at which customers /patients are being placed first after the introduction of the RBF program. Furthermore, health staff has confirmed that they are now listening more to their clients and learning their need thus improving the service quality.

4.4.3.2. External/Client perspective

From the external perspective, the researcher tested the hypothesis for three key statements on the client/patient questionnaire namely “nurses give sufficient care to you”, “overall administration is good”, and “you are very satisfied with the health facility”.

Nurses give sufficient care to you

The researcher tested the hypothesis whether “the RBF program cause a statistically significant change in the perceived care given by nurses”.

Overall administration is good

The researcher tested the hypothesis “the RBF program cause a statistically significant change in the quality of administration”.

You are very satisfied with the health facility

The researcher tested the hypothesis “the RBF program cause a statistically significant change in the level of client satisfaction”.

SPSS outputs for testing hypotheses to conform the above statements are as shown in Appendix 9. The results shows that in the three cases, the p values were less than 0.05 suggesting that the null hypotheses were rejected in the three cases. The researcher

therefore concluded that there is an improvement in the service quality being rendered to clients by the health staff. Furthermore, there is enough evidence to suggest that clients have witnessed an improvement in the administration and are satisfied on the overall with their health facilities.

4.4.4. Discussion of results – Service quality

Parasuraman, Zeithaml, & Berry (1988), studied different types of services and concluded that service quality has dimensions as responsiveness, competence, access, courtesy, empathy, security, understanding and knowing customers, communication and credibility. Parasuraman, Zeithaml, & Berry (1988) defined empathy as the ability of the staff to provide a caring and personalized attention to each customer. The t value for the statement “nurses give sufficient care to you” had a p value of 0.00 which was less than the level of significant of 0.05. Service quality is also defined according to Parasuraman, Zeithaml, & Berry (1988), as concerned with understanding and knowing customers. From the internal perspective attributes assessed for service quality namely “we place patients first”, we understand who our customer is”, and “we listen and learn from other customers” the p values were all within the range to conclude that conclude that staff have been motivated to understand and know their customers.

4.4.5. Performance Based Financing and Service utilization

The objective of the researcher was to assess the impact of PBF methodology on the number of clients seeking health services (service utilization). In order to address the research objective, the researcher tested the hypothesis for the statements “the number of admissions has increased”. Furthermore, analysis of secondary data was also done for triangulation purposes.

4.4.5.1. The number of admissions has increased

SPSS outputs for testing hypothesis to conform the above statement are as shown in **Appendix 10**. The researcher tested the hypothesis whether “the the RBF program cause a statistically significant change in the number of admissions at health facilities”.

The results show that, the p value was less than 0.05 suggesting that the null hypothesis was rejected. The researcher therefore concluded that there is an increase in the number of admissions since the start of the RBF program as perceived from the staff perspective.

4.4.5.2. Analysis of secondary data

The researcher managed to obtain secondary data from the secondary sources on percent of pregnant women seeking services at clinics in Marondera districts from the period January 2011 to May 2013. The data is as shown in Figure 4.5.

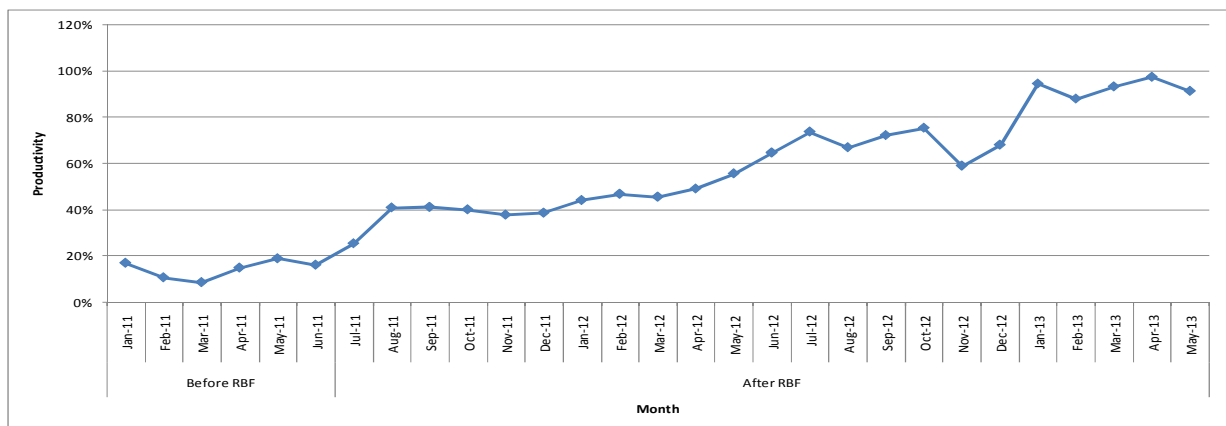


Figure 4.5: Percent of Pregnant women seeking services at Marondera Clinics Before and after the introduction of RBF

Source (CORDAID, HMIS2, 2013)

The graph shows that there is a general increase in the percent of pregnant women seeking services at Clinics in Marondera district as seen by the gradual increase of the trend line from January 2011 to May 2013.

Hypothesis testing was done on the secondary data used to plot the graph above so as to assess if there is an increase in percent of women seeking services at clinics in Marondera district. Data used for the hypothesis testing was for six months before and six months after the introduction of the RBF. Raw data used in the analysis are as shown in appendix 11. The researcher tested the hypotheses whether the RBF resulted in a statistically significant change in the percent of mother’s utilizing health services at health facilities”.

A paired sample t test was used to test the hypotheses above and the assumptions that were considered by the researcher as advised by Laerd-Statistics (2013) are;

1. Dependent variable were measured at the interval or ratio level (i.e., they are continuous)
2. Independent variable should consist of two categorical, "related groups" or "matched pairs. The two matched pairs are six month percent data for before and six month data for after the introduction of RBF.
3. There should be no significant outliers in the differences between the two related groups.
4. The distribution of the differences in the dependent variable between the two related groups should be approximately normally distributed.

Table 4-5: SPSS output for percent of mothers before and after introduction of RBF

T-Test

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean

Pair 1	Before	14.3333	6	4.08248	1.66667
	After	37.1667	6	6.11283	2.49555

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Before & after	6	-.500	.313

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Before - After	-22.83333	8.88632	3.62782	-32.15895	-13.50771	-6.294	5	.001

In the first table, titled Paired Samples Statistics, SPSS has generated descriptive statistics for the two matched pairs (before and after). The table shows the mean, sample sizes, standard deviation and the standard error mean of each of the two variables under test.

The Paired Samples Test table shows the results of the dependent t-test. The information presented on this table refers to the differences between the two scenarios (before and after). The columns of the table labeled "Mean", "Std. Deviation", "Std. Error Mean" and 95% CI refer to the mean difference between the two variables and the standard deviation, standard error and 95% CI of this mean difference, respectively. The last 3 columns show the results of the dependent t-test, the t-value, degrees of freedom and the significance level.

The t value is $t(5) = -6.294$, and the $p < 0.05$ as in the tables above thus due to the means of the two scenarios (before and after) and the direction of the t-value, we can conclude that there was a statistically significant improvement in Percent of Pregnant women seeking services at Marondera Clinics following the introduction of the RBF

program from 14.3333 ± 4.08248 % to 37.1667 ± 6.11283 % which is an improvement of 22.83333 ± 2.03 %.

Therefore the researcher rejects the null hypothesis and concluded that there is an improvement in the quantity since the introduction of the RBF program with regards to this particular indicator.

4.4.6. Discussion of results – Service utilization

According to Baqerkord (2012), performance management includes all activities that ensure that organizational goals and objectives are continually being attained in an efficient and effective manner. Baqerkord (2012) further concluded that performance management systems improve productivity of workers and this has an impact on service utilization. The researcher analyzed secondary data of the percent of pregnant women seeking services at Marondera clinics and the one statement on the staff questionnaire namely “the number of admissions increased”. In the first case, the t value was -6.294 whilst in the second case, the p value was 0.00 therefore in both cases there is convincing evidence to conclude that performance based financing has improved service utilization.

4.7. CHAPTER SUMMARY

Findings from the study were presented and discussed in this chapter. The chapter started preliminary analysis which consisted of the description of the response rate for both the client and staff interviews. High response rate was achieved in both interviews through strict follow-up of the questionnaires. In the demographics section, the researcher described the composition of respondents in terms of gender and job

function as important attributes that were to be used further in the analysis. Reliability and validity analysis were done using the Cronbach`s alpha for both the client an staff questionnaires. Results show a relatively “normal” alpha as benchmarked from the findings from literature. The main analysis followed with an analysis of the research findings based on the research objectives. Paired Samples T tests and Wilcoxon Signed Rank test were the main tools used for testing the hypothesis of the respective questions. In all the tests, the findings were in favor of the alternative hypotheses. The chapter is wrapped up with a discussion of the research findings were the researcher inked his findings to relevant literature. In the next chapter, conclusions are presented based on the research findings from this chapter and the recommendations are given together with opportunities for further research.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

5.0. INTRODUCTION

The conclusions drawn from the findings in chapter four and the recommendations are outlined in this chapter. Conclusions are presented in the order of the objectives as identified in chapter one. Issues that did not receive adequate attention due to limitations mentioned by the researcher are presented at the end of the chapter as areas of further research which the researcher hopes to further research on or may be pursued by other interested researchers.

5.0. CONCLUSIONS

5.0.1. General Conclusion

The overall objective of the research was to evaluate the effectiveness of Performance Based Financing in Non-Governmental organizations in Zimbabwe. From the findings presented in chapter four, the researcher concluded that Performance Based Financing has been effective in terms of worker motivation, improvement of service quality and improvement in service utilization.

In addition to the above, from the review of relevant literature on the subject, the researcher concluded that;

Performance Based Financing is a relatively new financing methodology being promoted by donors in developing nations so as to achieve value for money. From studies done in a number of developing nations, the researcher can conclude that Performance Based Financing initiative showed good results in terms of use of services, financial accessibility and motivation of health staff.

The financing methodology has been tested in developed nations with tremendous research however, little is known in developing nations and there is need for further research on the subject from different perspectives and using different approaches.

Performance based Financing if implemented well in health systems is likely to improve health workers motivation, improve service quality and also improve service utilization. However, care must be taken when setting performance measures so as to ensure that intrinsic motivation is not driven out by extrinsic motivation at the expense of short term gains.

The researcher concluded that performance management in health is very difficult to implements due to a number of factors key among them poor strategic planning, lack of methods for enhancing performance, and lack of the right leadership within the government structures. Performance Based Financing has put in place a number of structural reforms within the health delivery system in that have ensured that there is efficiency in service delivery and improved quality of care countries where the methodology has been implemented well.

5.0.2. Conclusion on health worker Motivation

The effectiveness of the Financing methodology compared to the traditional donor financing system is based in the fact that Performance Based Financing has put in place measures to ensure that health facilities have reward systems for their staff using the 25% of their earnings thereby ensuring continues motivation and job satisfaction. As compared to the traditional financing methodology which is input based, the reward system ensures that staff works towards attaining the agreed outputs without compromising on the quality of service rendered to clients. As from the findings in chapter four, the researcher concluded that paying for performance resulted in an increase in performance of health workers which in turn contributed to an improvement in staff motivation. Job satisfaction which is a function of staff motivation has also improved through the introduction of performance measures that are meant to motivate staff.

5.0.3. Conclusion on service Quality

From the findings, the researcher concluded that PBF has been effective in Marondera district in ensuring important changes in service efficiency and improvement in individual and organizational efficiency and accountability. The researcher further concludes that PBF through selecting incentives at the organizational and individual levels results in a change of attitudes towards work thereby improving the service quality within the health delivery system.

5.0.4. Conclusion on service utilization

All the areas that looked at service utilization confirmed that service utilization has indeed improved since the start of the RBF program. Positive trend was observed for

the percent of mother seeking services at health facilities in Marondera with the statistics confirming a positive change since the start of the program. The researcher concluded that the introduction of performance based financing has resulted in a significant increase in service utilization as a result of improved worker motivation and improved service quality.

5.1. RECOMMENDATIONS

One of the objectives of the researcher was “to make any significant managerial recommendations based on the findings from the study”. The results of the Marondera case indicate a need for a systemic rethinking while aiming at improving the quality of life in Zimbabwe. Basing on the fact that Performance Based Financing has demonstrated a reasonable success in the short time since implementation in Zimbabwe, the researcher recommends the following to policy makers, donors and nongovernmental organizations.

- Public management fraternity including NGOs, Donors and the Government of Zimbabwe should adopt a PBF system that include incentive and sanctions mechanisms that are applicable to the system, organizational and individual levels.
- While from the review of literature it has been demonstrated that it is not possible to develop a “one size fits all” solution, there is need for further research on the applicability of the PPBF financing methodology to other sectors of development such as education and agriculture. However, the Marondera case study of PBF provided lessons and it is the hope of the researcher that the findings can assist policy makers in Zimbabwe in developing appropriate solutions towards the efficient management of public funds.

Whilst it is important to put in place motivational strategies it is important to ensure that intrinsic motivation is not driven out at the expense of short term gains when setting performance measures for such a program. Therefore there is need to look at the impact of incentives on the long term sustainability of a such a program. Thus a question that is key when designing such a program is “what will happen when the incentives money runs dry?”, “will health workers maintain their level of work or they will decrease”.

The researcher looked at the staff motivation from the perceptive of financial or monetary incentives however, the performance based methodology may also be applicable by redesigning the incentive package to include bonuses such as training, improvement in working conditions among other motivating items. There is therefore need to identify strategies to motivate recipient workers so that they improve on their performance through testing intrinsic and extrinsic motivators within the specific project context.

5.2. AREAS FOR FURTHER STUDY

Further research should be carried out in order to further understand the concept of performance based financing towards improving financing for nongovernmental organizations. This study could be carried out in other area of development such as water and sanitation, education and food security within the development sectors towards refinement of policies to do with nongovernmental financing in Zimbabwe.

Due to the timing and design of the study, the researcher could not confirm nor deny the issue that PBF is likely to drive out intrinsic motivation. From the review of literature, there is a general agreement that PBF underestimates the multidimensionality of motivation thus it may crowd out intrinsic motivation thereby causing an effect on the performance of workers and eventually risking on the service quality and previous

achievements. There is therefore need for further research of a longitudinal nature using the same study tools to assess if the levels of motivation are not extrinsic motivation driven by the incentives given to staff.

The study was done in a district where the program has been implemented; similar studies can be done by comparing districts with and without the program.

Since performance based financing is a relatively new approach within health financing, there is need for studies that look at the impact that PBF processes might have on health system governance particularly to do with local accountability, capacity and sustainability of such an initiative on a national level.

REFERENCES

- Akintoye, I. R. (2000). The place of financial management in personnel psychology. A Paper Presented as Part of Personnel Psychology Guest Lecture Series. . University of Ibadan, Nigeria: Department of Guidance and Counselling, .
- Alexander, J. A., Liechtenstein, R. O., & Hellmann, E. (1998). A causal model of voluntary turnover among nursing personnel in long term psychiatric setting. *Research in Nursing and Health* , 21 (5), 415-427.
- Armstrong, M. (2000). *Performance Management: Key Strategies and practical guidelines* . London : Kogan Page .
- Armstrong, M., & Baron, A. (1998). *Performance Management - The new Realities* . London : The institute of Personnel Development .
- Baqerkord. (2012). Effect of Implementing Performance Management on the Productivity, Efficiency and Effectiveness of the Chabahr Municipal Employees. *Research Journal of Applied Sciences, Engineering and Technology* , 1767-1784.
- Bartlett , C. A., & Ghoshal , S. (1995). Changing the role of top management : Beyond systems to people . *Harvard Business Review* , 132-142.
- Benabon, R., & Tirole, J. (2003). Intrinsic and Extrinsic Motivation. *The review of economic studies* , pp. 489-520.
- Boland, T., & Fowler, A. (2000). Systems Perspective of performance Management in Public Sector Organisations. *The international Journal of Public Sector Management* , 15.
- Bouckaert, G. (1992). *Public productivity in retrospective*. New York: Marcel Dekker.
- Brewster, C., Carey , L., Dowling, P., Gobler , P., Holland, P., & Warnich , S. (2003). *Contemporary issues in Human Resources management* . Cape Town : Oxford University Press.

- Brinkerhoff , D. W. (2005). Accountability and good governance: concepts and issues. In Huque AS, Zafarullah H, eds. *International Development and Governance* , 269-289.
- Brinkerhoff, D. W., & Wetterberg , A. (2012). *Performance-based Public Management Reforms: Experience and Emerging Lessons from Service Delivery Improvement in Indonesia*. Indonesia: RTI international.
- Brown , D., & Armstrong , M. (1999). *Paying for Contribution. Real Performance related pay strategies* . London : Kagan Page .
- Bryman, A., & Bell, E. (2007). *Business research methods*. New York: Oxford University Press Inc.
- Buchan, J. (2005). *Scaling up health and educating workers: increasing the Performance and Productivity of an Existing Stock of health workers*. London : DFID.
- Buchan, J. (2005). *Scaling up Health and Education workers: increasing the performance and productivity of an existing stock of health workers. Literature review*. London: DFID.
- Chow-Chua, C., & Goh, M. (2000). Quality improvement in the Health care Industry: Some evidence from Singapore . *International Journal of Health care quality assurance* , 223-229.
- Chowdhury, S. (2001). Educating Mothers for health: Output - based incentives for teaching oral rehydration in Bangladesh. *Output -Based Aid and its applications* , 57-63.
- Collins, J., & Hussey, R. (2003). *Business Research: A practical guide for undergraduate and postgraduate students, Second Edition*. Basingstoke: Palgrave Macmillan .
- CORDAID. (2013). *HMIS2*. Retrieved August 06, 2013, from Zim RBF: www.zimrbf.org
- CORDAID. (2012). *Results Based Financing Project Implementation Manual (PIM)*. Harare: CORDAID.

Cornea, M. M. (1988). *Non-Governmental Organisations and the local development, World Bank Discussion Paper*. Washington DC: World Bank .

Custers, T., Hurley, J., Klazinga, N. S., & Brown, A. D. (2008). Selecting Effective Incentive Structure in Health Care: A decision Framework to Support Health Care Purchases in finding the right incentives to drive performance. *BMC health services research* , 66.

Daft , R. L. (1999). *Leadership theory and practice* . New York : Harcourt Brace College Publishers .

Davis, D. (2000). *Business Research for Decision Making* . Thomson : Canada Brooks.

Davis, D. (2004). *Business Research for Decision Making 6th edn* . CA: Belmont .

Deci , E., Koestner , R., & Ryan, R. (1999). Meta Analysis Review of Experiments Examining the effects of Extrinsic Rewards on Intrinsic Motivation . *Psychological Bulletin* , 627-668.

Deci, E. L., & Ryan, R. M. (1985). *intrinsic Motivation and Self Determination in Human Behaviour*. New York : Plenum Press.

Dunleavy , P., & Hood, C. (1994). From old public administration to new public management. *Public Management and Money* , 9-16.

Eichler , R. (2006). *Can "Pay for performance" increase utilisation by the poor and improve quality of health services? Discussion paper for the first meeting of the working group on performance based incentives*. Washington : Centre for Global Development .

Eijkenaar F. (2013) 'Effects of pay for performance in health care: A systematic review of systematic reviews', *Health policy*

Esterby-Smith, M., Lyles, M., & Lowe, A. (2003). *The Blackwell Handbook of Organisational Learning*. Oxford: Blackwell.

Ferlie , E., Ashburner, L., Fitzgerald, L., & Pettigrew , A. (1996). *The New Public Management in Action* . Oxford, UK: Oxford University Press.

- Flynn, N. (1993). *Public Sector Management* . Harvester: Wheatsheaf.
- Fowler, F. J. (2002). *Survey Research Methods. 3rd ed.* Thousand Oaks, CA: Sage.
- Friederike, P. (2009). *Health worker motivation and the role of performance based financing system in Africa: A Qualitative study on health worker motivation and the role Rwanda Performance Based Finance Initiative in District Hospitals.* London: London School of Economics and Public Health .
- Furnham, A. (2004). Performance Management System . *European Business Journal* , 83-94.
- Giorgio, C. (2008, April 18). Discussion paper on performance-based financing. Cape Town, South Africa.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (2006). *Multivariate Data Analysis 6th edn* . New Jersey : Prentice Hall.
- Handy, C. B. (1976). *Understanding Organisations* . Penguin Books .
- Hays, J. M., & Hill, A. V. (1999). Gaining Competitive Service Value through Performance Motivation. *Journal of Strategic Performance Measurement* , 36-40.
- IDRE. (2013, July 03). Retrieved July 03, 2013 , from Institute of Digital Research and Education : <http://www.ats.ucla.edu/stat/spss/faq/alpha.html>
- Ireland , M., Paul , E., & Dujardin, B. (2011). Can Performance Based Financing be used to reform health systems in developing countries? . *Bulletin of the World health Organisation* , 89:695-698.
- Ireland, M., Paul, E., & Dujardin, B. (2011, April 28). Can performance-based financing be used to reform health systems in developing countries?
- Itl. (2013). *Engineering Statistics Handbook*. Retrieved July 25, 2013, from ITL: <http://www.itl.nist.gov/div898/handbook/ppc/section3/ppc333.htm>

- Kaul, M. (1997). The New Public Administration: management innovations in government. *Public Administration and Development* , 13-26.
- Kettl , D. F., Fanaras, W., Lieb, J., & Michael , E. (2006). *Managing for Performance: A Report on Strategies for Improving the Results of Government*. Washington, DC: Brookings Institution Press.
- Laerd-Statistics. (2013, 01 01). *Laerd Statistics*. Retrieved 08 08, 2013, from Laerd Statistics: <https://statistics.laerd.com/spss-tutorials/wilcoxon-signed-rank-test-using-spss-statistics.php>
- Lazear, E. (2000). Performance, Pay and Productivity . *American Economic Review* , 1346-1361.
- Lewis, D. (2009). *Nongovernmental Organisations, Defination and History*. London: London School of Economics and Political Science .
- Lewis, D. (2007). *The management of non-governmental development organisations*. London: Routledge.
- Locke, E. A., & Latham, G. P. (1990). *A Theory of Goal Setting and Task Performance*. . Englewood Cliffs, NJ: : Prenticehall.
- Long, J. (2000). *Performance Based Management System Project Management Plan*.
- Long, R. G., White, C. M., Friedman, W. H., & Brazeal, D. V. (2000). The 'Qualitative' versus 'Quantitative' research debate: A question of metaphorical assumptions,. *International Journal of Value-based Management* , 189-197.
- Luoma, M. (2006). Increasing the Motivation of Health - Care workers . *Capacity Project Technical Brief 7* .
- Luoma, M. (2006). *Increasing the Motivation of health care workers: Technical Brief 7*. Capacity Project .
- Manning, M. (2006). *Quantitative Research Methods: Study Guide, 2nd edn*. Australia : Southern Cross University .

Martinez, J. (2000). Assessing Quality, Outcome and Performance Management . *Workshop on Global Health Workforce Strategy* . London : The institute of Health Sector Development .

Martinez, J., & Martineau, T. (1996). Workshop on Human Resources and Health Sector Reforms: Research and Development. Liverpool : Liverpool School of Tropical Medicine.

Maslow, A. H. (1943). *Motivation and Personality* . New York: Harper and Row.

Mason, R., & Jugathambal, B. R. (2008). *Motivation and Perceived Productivity at a Merged Higher Education Institution*. Durban : Durban University of Technology in the Faculty of Commerce .

Mathauer, I., & Imhoff, I. (2006). Health worker motivation in Africa: the role of Non financial incentives and Human Resource Management Tools . *Human Resource for Health* , 24.

Mattauer, I., & Imhoff, I. (2006). Health worker Motivation in Africa: the role of Non Financial Incentives and Human Resource Management tools . *Human Resource for health* , 24.

McLeod, S. (2007). *SimplyPsychology*. Retrieved August 05, 2013, from Maslow's Hierarchy of Needs: <http://www.simplypsychology.org/maslow.html>

Meessen, B., Soucat , A., & Sekabaranga , C. (2011). Performance Based Financing just a donor fad or a catalyst towards comprehensive health care reform? *Bulletin World Health Organisation* , 89:153-6.

Mohsen, T., & Reg, D. (2011). Making Sense of Cronbach`s Alpha . *International Journal of Medical Education* , 53-55.

Morgan, L. (2012). *Results Based Financing for Health* . Retrieved April 01, 2013, from http://www.rbfhealth.org/system/files/RBF_Feature_A_R3.pdf

Moser, K. (1997). Commitment in organizations. *Psychologies* , 41 (4), 160-170.

- Neuman, W. L. (2006). *Social Research Methods, Qualitative and Quantitative Approaches, 5th edn* . Boston : Allyn and Bacon .
- Neville, C. (2007, July 01). *www.brad.ac.uk*. Retrieved March 01, 2013, from *www.brad.ac.uk/management*: <http://www.brad.ac.uk/management>
- Nguyen, T. N. (2010). *Knowledge Management Capabilities and Competitive Advantage: An empirical study of Vietnamese Enterprises*. Lismore, Vietnam.
- Nunnall, J., & Bernstein, L. (1994). *Psychometric Theory* . New York : McGraw-Hill.
- OECD, O.-o. (2005). *Modernising Government: The Way Forward*. Paris: OECD.
- Ovretveit, J. (2000). The Norwegian Approach to Integrated Quality Development . *Health Care Review online: Experience in Practice* , Vol.2 No.1.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL a multiple item scale for measuring customer perceptions fo service quality . *Journal of retailing* , 12-40.
- Paul, F. (2009). Health worker motivation and the role of Perfoamnce Based Finance systems in Africa: A Qualitative study on the health worker motivation and the Rwanda Performance Based Finance Initiative in district Hospitals . *Development Destin Studies Institute* , 2-36.
- Peters, J., & Waterman, R. H. (1982). *In Search of Excellence: Lessons from America`s best run Companies* . Harper Collins.
- Pinder, C. C. (1998). *Work Motivation in Organizational Behaviour*. Upper Saddle River, NJ: Prentice Hall.
- Price , A. (2000). *Principles of human resources msnagement. an active learning aproach*. Oxford : Blackwell Publishers Limited .
- Riddell, R. (2007). *Does foreign aid really work?* Oxford: Oxford University Press.
- Roberts, M., Hsiao, P., & Reich M, R. (2009). *Getting health reform rightL: A guide to improving performance and equity* . Oxford : Oxford University Press.

Roethlisberger, F. J., & Dickson, W. J. (1939). *Management and the worker: An account of a research program conducted by the western electric company, Hawthorne works*, . Chicago, Wright.Cambridge, MA:: Harvard University Press.

Rusa, L., & Fritsche, G. (2006). *Rwanda: Performance-Based Financing in Health*.

Savedoff, W. D. (2011). *Incentive proliferation? Making sense of a new wave of development programs*. Washington, DC: Center for Global Development,.

Singh, S. K., & Tiwari, V. (2011). RELATIONSHIP BETWEEN MOTIVATION AND JOB SATISFACTION OF THE WHITE COLLAR EMPLOYEES: A CASE STUDY. *Management Insight* , Vol. VII, No. 2, 2.

Srivastava, S. K., & Barmola, K. C. (2011). *Role of Motivation in higher productivity* .

Streiner, D. (2003). Starting at the beginning an Introduction to coefficient alpha and internal consistency. *Journal of Personality Assessment* , 80:99-103.

Tobin, D. R. (1998). *The knowledge - enabled organisation moving from "training" to "learning" to meet Business Goals*. New York : Amacom.

Toonen , J., Canavan, A., Vergeer , P., & Elovainio, R. (2009). *Lerning lessons on implementing Performance Based Financing, from a multi - conutry evaluation*. Amsterdam : Royal Tropical Institute .

Toonen, J., Canaven, A., & Riku, E. (2008). *Performance Based Financing; an international Review of literature* . Amsterdam : Royal Tropical Institute .

UN. (2007). *Africa and the Millenium Development Goals update*. United Nations .

Walters, M. (1995). *The Performance Management Handbook*. London : Institute of Personnel and Development .

WHO. (2006). Working together for health. World Health Report. . *Geneva World Health Organisation* .

Witter , S., Fretheim , A., Kessy , F., & Lindhl, A. K. (2012). *Paying for performance to improve the delivery of health interventions in low- and middle-income countries*. Aberdeen: University of Aberdeen.

World Bank. (2012). Results-based Financing for Health (RBF): What's All the Fuss About? Washington DC.

World Bank. (2013, July 17). *Slideshare*. Retrieved July 17, 2013, from SlideShare: <http://www.slideshare.net/GPOBA/output-based-aid-a-financing-tool-for-access-to-water-service>

World-Bank. (1993). *World Development Report: Investing in Health*. World Bank,. Washington DC: World Bank.

Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1990). *Delivering Quality Service* . New York: Free Press.

Zikmund, W. G. (2003). *Business Research Methods, 7th edn*. Ohio: Thomson/South - Western .

Zikmund, W. G. (2003). *Business Research Methods,7th edn*. Ohio: Thomson/South - Western .

Zimstats. (2012). *Census Results in Brief*. Harare: Zimstats.

Zimstats. (2010/2011). *Zimbabwe Demographic and Health Survey* . Harare: Zimstats.

APPENDICES

For Official use

Appendix 1: Client/Patient Questionnaire

Questionnaire	Identification				
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Date Completed/...../2013
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Client/Patient Questionnaire

Introduction

My name is Eubert R, Vushoma. I am a student studying Masters in Business Administration with the University of Zimbabwe and I am conducting a study on the effectiveness of the Results Based Financing (RBF) also known as Performance Based Financing (PBF) being implemented by CORDAID on behalf of the Ministry of Health. The purpose of this study is to evaluate the effectiveness of PBF in health so as to come up with appropriate recommendations for improvement. This questionnaire in particular is meant to get your views with regards to client satisfaction in line with Performance based financing program. **Each question has two options before and after the introduction of the program.** The responses that you give will be treated with utmost confidentiality and will be used for academic purposes and inform management decision making only. ***You do not have to write your name.***

I would be grateful if you could spare a few minutes to complete this Questionnaire.

		Before RBF					After RBF				
Question ↓	Score →	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree
	Value →	1	2	3	4	5	1	2	3	4	5
Quality of Care											
Nurses give sufficient care to you		1	2	3	4	5	1	2	3	4	5
Nurses are always helpful and supportive		1	2	3	4	5	1	2	3	4	5

		Before RBF					After RBF				
Question	Score	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree
	Value	1	2	3	4	5	1	2	3	4	5
They are always ready to listen to what you had to say		1	2	3	4	5	1	2	3	4	5
Nurses are friendly		1	2	3	4	5	1	2	3	4	5
They reply your queries very satisfactorily		1	2	3	4	5	1	2	3	4	5
They treat your relatives and friends very nicely		1	2	3	4	5	1	2	3	4	5
They explain clearly about the technicality of the treatment		1	2	3	4	5	1	2	3	4	5
They communicate with supportive staff very well		1	2	3	4	5	1	2	3	4	5
They are available at the time of need		1	2	3	4	5	1	2	3	4	5
Overall service Quality											
Your expectations are fully met with regard to Nurses		1	2	3	4	5	1	2	3	4	5
Overall administration is good		1	2	3	4	5	1	2	3	4	5
Overall cleanliness maintained		1	2	3	4	5	1	2	3	4	5
You are very satisfied with the Health Facility		1	2	3	4	5	1	2	3	4	5
Operative quality of care											
Proper queue management is followed		1	2	3	4	5	1	2	3	4	5
Internal atmospheric environment is		1	2	3	4	5	1	2	3	4	5

		Before RBF					After RBF				
Question ↓	Score →	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree
	Value →	1	2	3	4	5	1	2	3	4	5
attractive											
Bed sheets /linens are changed daily		1	2	3	4	5	1	2	3	4	5
There is always conducive interaction with the frontline staff		1	2	3	4	5	1	2	3	4	5

On the Overall what do think about the effectiveness of RBF program at this health facility?

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Any other comments

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.....

The end

Thank you

Date Completed/...../2013
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Questionnaire	Identification				
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Staff Questionnaire

Introduction

My name is Eubert R, Vushoma. I am a student studying Masters in Business Administration with the University of Zimbabwe and I am conducting a study on the effectiveness of the Results Based Financing (RBF) also known as Performance Based Financing (PBF) being implemented by CORDAID on behalf of the Ministry of Health. The purpose of this study is to evaluate the effectiveness of PBF in health so as to come up with appropriate recommendations for improvement. This questionnaire in particular is meant to get your views with regards to motivation, perceptions of quality and quantity improvement in line with Performance based financing program. The questionnaire is divided into three sections. **Each question has two options before and after the introduction of the program.** The responses that you give will be treated with utmost confidentiality and will be used for academic purposes and inform management decision making only. **You do not have to write your name.** I would be grateful if you could spare a few minutes to complete this Questionnaire. **Please indicate how much you agree or disagree with each of the following statements for each case below i.e. before and after the introduction of the program (Grey column is before and Green is after RBF).**

Section 1: Main Questionnaire

		Before RBF					After RBF				
Statement ↓	Score →	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree
	Value →	1	2	3	4	5	1	2	3	4	5
Leadership											
We place patients first		1	2	3	4	5	1	2	3	4	5
We use performance feedback to improve our quality care		1	2	3	4	5	1	2	3	4	5
Our leadership focused on the well-being of the community		1	2	3	4	5	1	2	3	4	5
We are prepared for community emergencies		1	2	3	4	5	1	2	3	4	5
Leadership collaborates with others to solve basic community problems		1	2	3	4	5	1	2	3	4	5
We provide services for those who cannot pay		1	2	3	4	5	1	2	3	4	5
Strategic Planning											
We have a comprehensive short- term and long –term goals		1	2	3	4	5	1	2	3	4	5
Our short- term and long –term goals are aligned with customer’s needs and healthcare market expectations		1	2	3	4	5	1	2	3	4	5
Strategic decisions are evaluated with objective measures		1	2	3	4	5	1	2	3	4	5
Customer Focus											
We understand who is our customer		1	2	3	4	5	1	2	3	4	5
We have a customer-oriented vision that is clearly defined and communicated to us		1	2	3	4	5	1	2	3	4	5
We have a customer-oriented culture that embeds customer satisfaction throughout Organizational practices		1	2	3	4	5	1	2	3	4	5

		Before RBF					After RBF				
Statement ↓	Score →	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree
	Value →	1	2	3	4	5	1	2	3	4	5
Our work unit actively seeks feedback from customers regarding our services		1	2	3	4	5	1	2	3	4	5
We deal with our customer with high integrity and fairness		1	2	3	4	5	1	2	3	4	5
We Listen and learn from the customers		1	2	3	4	5	1	2	3	4	5
We act to the customer requirements		1	2	3	4	5	1	2	3	4	5
We have fostered the satisfaction and loyalty of the customers		1	2	3	4	5	1	2	3	4	5
We have effective management process for solving customer's complaints		1	2	3	4	5	1	2	3	4	5
We systemically and regularly measure the extent of customer satisfaction		1	2	3	4	5	1	2	3	4	5
Measurement, Analysis and Knowledge Management											
Our information systems are standardized across the departments		1	2	3	4	5	1	2	3	4	5
Our data analysis shows improvement in cycle times (reducing length of stay)		1	2	3	4	5	1	2	3	4	5
We ensure the data and information integrity and accuracy		1	2	3	4	5	1	2	3	4	5
We effectively use comparative data and information to analyze the performance		1	2	3	4	5	1	2	3	4	5
We use the results to act as the basis for improvement and benchmarking		1	2	3	4	5	1	2	3	4	5
Workforce Focus											
Sufficient effort is made to get the opinions and thinking of people		1	2	3	4	5	1	2	3	4	5

		Before RBF					After RBF				
Statement ↓	Score →	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree
	Value →	1	2	3	4	5	1	2	3	4	5
who work here											
We are satisfied with our involvement in decisions that affect our work		1	2	3	4	5	1	2	3	4	5
We work together by cooperation and team work		1	2	3	4	5	1	2	3	4	5
We have a well developed staff performance management system to reward high performance		1	2	3	4	5	1	2	3	4	5
We have comprehensive system to motivate staff, and help them attain career development		1	2	3	4	5	1	2	3	4	5
Process Management											
We have established effective service delivery system		1	2	3	4	5	1	2	3	4	5
We obtain feedback on support services from patients		1	2	3	4	5	1	2	3	4	5
We ensure efficiency and effectiveness in service process		1	2	3	4	5	1	2	3	4	5
We have effective methods to assess performance to improve our service delivery process.		1	2	3	4	5	1	2	3	4	5
Performance Outcomes (Results)											
The number of admissions has increased		1	2	3	4	5	1	2	3	4	5
Patient length of stay is decreased		1	2	3	4	5	1	2	3	4	5
Customer satisfaction has shown improvement		1	2	3	4	5	1	2	3	4	5
The waiting line has reduced		1	2	3	4	5	1	2	3	4	5
The number of customer complaints has decreased		1	2	3	4	5	1	2	3	4	5

		Before RBF					After RBF				
Statement ↓	Score →	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree	Strongly Disagree	Disagree	Somewhat Agrees	Agree	Strongly agree
	Value →	1	2	3	4	5	1	2	3	4	5
Our financial results have been improving		1	2	3	4	5	1	2	3	4	5
Total income increased		1	2	3	4	5	1	2	3	4	5
Total expenditure decreased		1	2	3	4	5	1	2	3	4	5
Employee's satisfaction increased		1	2	3	4	5	1	2	3	4	5
Employees know the vision, mission and business objectives		1	2	3	4	5	1	2	3	4	5
Staff motivation has improved		1	2	3	4	5	1	2	3	4	5

Section 2: Staff Motivation

Question	Before the RBF program	After introduction of the RBF program
How satisfied are you with your position at this facility?	<ul style="list-style-type: none"> a. Satisfied b. Somewhat satisfied c. Dissatisfied 	<ul style="list-style-type: none"> a. Satisfied b. Somewhat satisfied c. Dissatisfied
Did you enjoy going to work every day to perform your best?	<ul style="list-style-type: none"> a. Yes b. No 	<ul style="list-style-type: none"> a. Yes b. No
How motivated are you to assist this facility/department in meeting its objectives?	<ul style="list-style-type: none"> a. Very motivated b. Somewhat motivated c. De-Motivated 	<ul style="list-style-type: none"> a. Very motivated b. Somewhat motivated c. De-Motivated

Question	Before the RBF program	After introduction of the RBF program
How do you rate your responsiveness in dealing with your clients/Patients?	1 = Excellent 2 = Good 3 = Satisfactory 4 = Poor 5 = Very Poor	1 = Excellent 2 = Good 3 = Satisfactory 4 = Poor 5 = Very Poor

Section 3: Demographics

Instruction: Tick the appropriate box in each of the questions below

Designate	Nurse in Charge	Nurse	Lab Technician	Primary Care Nurse	Environmental health technician
------------------	-----------------	-------	----------------	--------------------	---------------------------------

Gender	Male	Female
---------------	------	--------

Length of service in the ministry of health	Less than 1 year	1 year to 5 years	6 years to 15 years	More than 15 years
--	------------------	-------------------	---------------------	--------------------

On the Overall what do think about the effectiveness of RBF program at this health facility?

.....

.....

.....

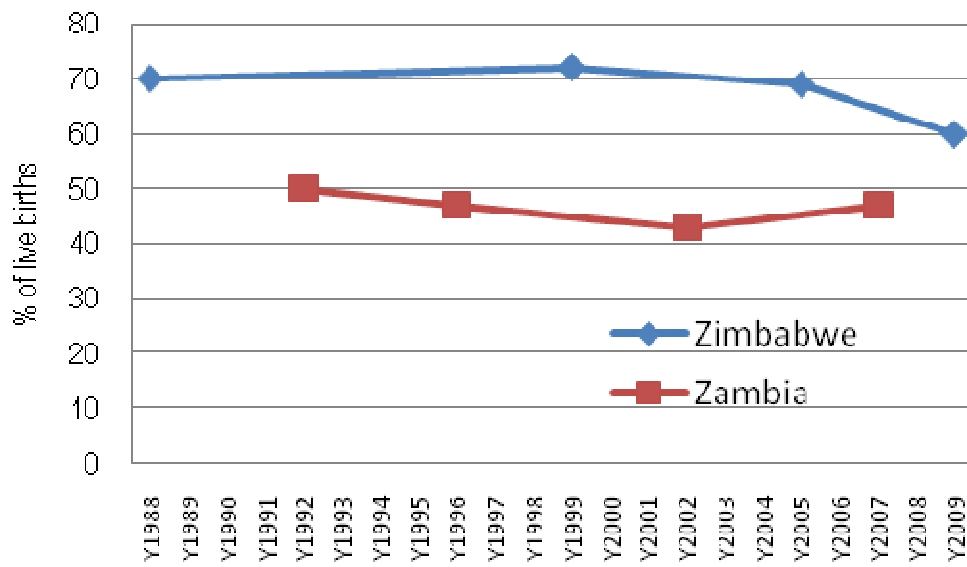
Any other comments

.....
.....
.....
.....

The end

Thank you

Appendix 3: Births attended by skilled personal (Zimbabwe and Zambia 1988 to 2009)



Source (Zimstats, 2010/2011)

Appendix 4: Sampled Staff per health facility

	Health facility	Number of health workers	Number of health workers who participated in the study
1	Border Church	9	2
2	Chimbwanda	4	1
3	Chiota Rural	25	6
4	Chipararwe	5	1
5	Dimbiti	5	1
6	Igava	5	1
7	Kushinga Phikhelela	5	1
8	Lustleigh Council Clinic	3	1
9	MRDC	2	0
10	Masikana	6	1
11	Mudzimurema	6	1
12	Nyembanzvere	4	1
13	Wenimbe	5	1
14	Marondera Provincial Hospital	192	47
Total		276	68



4 News/Foreign

Neo-natal mortality fight set for boost

Sharon Kavhu
Sunday Mail Reporter

The country's fight against maternal mortality is set for a major boost following the availing of an additional US\$30 million by the World Bank under its Results Based Financing (RBF) concept.

The money, which brings to US\$35 million the total amount that the World Bank (WB) will give to Zimbabwe under the programme, will see Government spreading the maternal health programme to urban and peri-urban clinics.

Under the initial phase of the programme, support was being channelled to rural health institutions.

The Permanent Secretary in the Ministry of Health and Child Welfare, Dr Gerald Gwinyi, confirmed that the World Bank recently approved to assist an additional US\$20 million to the country.

"The issue of securing maternal mortality and improving health service is a national need. Thus the US\$20 million that Government is set to receive will benefit urban health centres," he revealed.

"Ever since the WB initiated RBF last year, the programme was only benefiting health centres in rural areas.

"However this season we have agreed as a ministry to embark on a pilot programme which will see the poor urban areas also benefiting from the fund. We expect to roll out the second phase of this programme next month. We will be working together with the Ministry of Labour and Social Services to identify the poor urban areas that should benefit first from the fund before it is decentralised to the remaining areas."

RBF is a form of payment that is based on outcomes. In this case, health centres are allocated funds from the WB basing on their performances and operational

expenses.

In 2010, the Ministry of Health and Child Welfare, the World Bank and the Catholic Organisation for Development Corporation (Cofmid) agreed on the implementation of an RBF project in order to improve the health sector in Zimbabwe.

Last year, the country received US\$15 million under the programme and the money was used to cover districts while the remaining US\$5 million from Government's Health Transition Fund.

Statistics show that Zimbabwe's maternal mortality rate (MMR), which is the annual number of female deaths per 100 000 live births from any cause related to or aggravated by pregnancy or its management, is pegged at 570. The MMR includes deaths during pregnancy, childbirth, or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy.

Appendix 6: SPSS Output Reliability Analysis (Leadership Dimension – Staff Questionnaires)

```
RELIABILITY /VARIABLES=L1 L2 L3 L4 L5 L6 /SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA /STATISTICS=SCALE ANOVA /SUMMARY=TOTAL COV CORR.
```

Reliability

```
[DataSet0] C:\Users\Territory Executive\Desktop\Eubert DISERTATION data Staff
Interviews.sav
```

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	57	100.0
	Excluded ^a	0	.0
	Total	57	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.802	.854	6

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Covariances	.541	.023	1.643	1.620	72.833	.266	6
Inter-Item Correlations	.493	.025	.892	.867	35.524	.067	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
we place patients first Before	10.67	18.440	.836	.963	.742
we use Performance feedback to improve quality care Before	10.26	15.912	.896	.982	.701

our leadership focu on the being of the community Before	9.68	13.434	.572	.735	.805
we are prepared for community emergencies before	10.09	12.831	.751	.974	.726
leadership colaborates with others to solve basic communtiy problems Before	10.68	21.863	.490	.968	.803
we provide service for those who cannot pay Before	10.37	22.630	.255	.930	.823

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
12.35	24.268	4.926	6

ANOVA

	Sum of Squares	df	Mean Square	F	Sig
Between People	226.497	56	4.045		
Within People					
Between Items	40.585	5	8.117	10.158	.000
Residual	223.749	280	.799		
Total	264.333	285	.927		
Total	490.830	341	1.439		

Grand Mean = 2.06

Appendix 7: SPSS Output for Wilcoxon Signed Ranks Test for Staff Motivation

Test Statistics^c

	We have a well developed staff performance management system to reward After - We have a well developed staff performance management system to reward Before	Employee satisfaction increased After - Employee satisfaction increased Before	How motivated are you to assist this department in meeting its objectives After - How motivated are you to assist this department in meeting its objectives Before
Z	-5.863 ^a	-4.308 ^a	-6.838 ^b
Asymp. Sig. (2-tailed)	.000	.000	.000

a. Based on negative ranks.

b. Based on positive ranks.

c. Wilcoxon Signed Ranks Test

Appendix 8: SPSS Output for Wilcoxon Signed Rank Test for Service Quality - Internal Perspective

Test Statistics^b

	we place patients first After - we place patients first Before	We understand who is our customer After - We understand who is our customer Before
Z	-6.205 ^a	-6.675 ^a
Asymp. Sig. (2-tailed)	.000	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

Appendix 9: SPSS Output for Wilcoxon Signed Rank Test for Service Quality – External Perspective

Test Statistics^c

	nurses give sufficient care to you After - nurses give sufficient care to you Before	overall administration is good After - overall administration is good Before	you are very satisfied with the health facility After - you are very satisfied with the health facility Before
Z	-6.543 ^a	-5.317 ^a	-5.23 ^b
Asymp. Sig. (2-tailed)	.000	.000	.000

a. Based on negative ranks.

b. Based on positive ranks.

c. Wilcoxon Signed Ranks Test

Appendix 10: SPSS Output for Wilcoxon Signed Rank Test for Quantity

Test Statistics^b

	the number of admissions has increased After - the number of admissions has increased Before
Z	-2.844 ^a
Asymp. Sig. (2-tailed)	.004

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

Appendix 11: Raw data of the percent of women seeking services at clinics in Marondera District

	Month	Percent of Pregnant women seeking services at Clinics
Before RBF	Jan-11	17%
	Feb-11	11%
	Mar-11	8%
	Apr-11	15%
	May-11	19%
	Jun-11	16%
After RBF	Jul-11	25%
	Aug-11	41%
	Sep-11	41%
	Oct-11	40%
	Nov-11	38%
	Dec-11	38%

Source (CORDAID, HMIS2, 2013)