

# ***The Effects of Result Based Financing (RBF) to Health Care Services in Nchelenge District.***

***Case study of the RBF program to 05 Health Facilities namely; Kambwali RHC, Kilwa RHC, Nchelenge UHC, Lushiba HP, kashikishi UHC. (Paper ID: CFP/1183/2019)***

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**Abstract**-Results-based financing (RBF) is used by the World Bank and other donor agencies. The maternal mortality ratio (MMR) also fell from 591 to 398 per 100,000 live births between 2007 and 2013/14 (CSO et al. 2014), consequently this had been significantly above the average for Zambia's income group (260 per 100,000 live births). Chronic malnutrition in under-5 children decreased from 45.4% in 2007 to 40.1% in 2013/14 (CSO et al. 2014) moreover this had been far below the MDG target of 23%. Objectives of the Study. The main objective of this study is to investigate the effect of RBF funds on access and utilization of maternal and child health services in five (05) Health Centres in Nchelenge District.

Specific objectives included investigating the accuracy of results achieved on the number of deliveries attended by skilled health workers. To identify the trends in mothers accessing first Antenatal visits in the first trimester. To analyse the number of children being offered Post-Natal Care (visits) within 6 days. To explore how the incentives are used to increase the number of new contraceptive users at the end of the month. The methodology includes research design. The Research design was a case study, using predominantly qualitative data collection and analysis methods triangulated with quantitative

data (both primary and secondary). Qualitative research method was adopted in this study. This choice was imperative because it had been established that little has been written on the subject, Qualitative research was a useful way to proceed due to its explanatory nature (Densin, 1994:30). It enabled participants to describe their experiences and present their views using their own words.

By using open-ended questions, the true picture came out in the open on how they felt towards this RBF project and accessing of the funds. The unit of analysis was stakeholders at various levels of the health system (i.e., District Health Office, Rural Health Centres, Health Centre Committees and the community). The numbers are as follows; Fifteen (15) clients from the community. Fifteen (15) Community Health Workers. Fifteen (10) Neighbourhood Health Committee members.

Thirty (30) qualified members of staff from the five RHCs and in addition, Five (05) members of staff from the District Health Office (DHO).

**Keywords**—*RBF , Nchelenge District , 05 health facilities , Case study*

## 1. CHAPTER ONE: INTRODUCTION

### 1.1 Background to the study

#### 1.1.2 Overview

##### *Overview on Zambia*

Zambia is a landlocked Sub-Sahara African country sharing boundaries with Malawi and Mozambique to the east; Zimbabwe, Botswana and Namibia to the south; Angola to the west; and the Democratic Republic of Congo and Tanzania to the north. The country lies between latitudes 8° and 18° south and longitudes 22° and 34° east. It covers 752,612 square kilometres. Approximately 58 percent of Zambia's total land area of 39 million hectares is potentially good for agricultural production although most of this arable land is however to be fully utilized for increasing the contribution of the agricultural sector to the national economy. Zambia's agricultural activities is chiefly rain fed despite having large water bodies that can certainly be tapped for irrigation purposes.

Zambia's economy still depends on Copper and Cobalt exports to generate most of its foreign exchange revenue. As a result, the country remains susceptible to high risk of external commodity price fluctuations. The population of Zambia increased almost threefold from 5.7 million in 1980 to an estimated 15.5 million in 2015. Between 2010 and 2015, the population increased from 13.1 to 15.5 million representing an increase of 18.3 percent. The country's average population density is 20.6 persons per square kilometre, while Lusaka Province has the maximum density of 126.8 persons per square Kilometre. There are 73 ethnic groupings in Zambia with seven major languages used besides English, which is the official language. The seven major languages are Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga.

Zambia got its independence from Britain in 1964. Politically, the country has gone through the era of Multi-party democracy, 1964-72 and one party rule, 1972-1990 and later multi-party democracy since 1991 of governance. Administratively, the country is divided into ten

provinces namely Central, Copperbelt, Eastern, Luapula, Lusaka, Muchinga, Northern, North-western, Southern and Western.

These provinces are further subdivided into districts, constituencies and wards. Zambia's economic growth slowed down in 2015 similar to what was happening in most of the unindustrialized and developing economies. The country's economy was negatively affected by both internal and external macroeconomic pressures predominantly the weakening in global trade and a slump in commodity prices (MoF, 2015 Economic Report). Plunging copper prices, energy deficits, an unbalanced and depreciating Kwacha, increase in inflation and a decline in global demand for copper, which accounts for approximately 70% of the country's external revenue earnings, dampened the prospects for normal economic growth. Zambia's economic growth in 2015 was estimated at 2.9% (CSO, National Accounts 2016). Most of the population in Zambia (58.2 percent) live in rural areas and are dependent on agriculture for their livelihood. Thus, addressing basic challenges faced by the agricultural community would not only improve household food security but also help quicken the process of poverty reduction. One of the main objectives of the Revised Sixth National Development Plan (R-SNDP) was to diversify the economy away from mining to agriculture. It was predicted that Investment in the agriculture industry would enhance agricultural production, household food security and create room for increased exports of agricultural related products.

The country's vision is to become a prosperous middle income country by 2030 (Vision 2030) via enhanced private sector participation. Thus, Zambia has embarked on the Private Sector Development Programme (PSDP), which is predestined to attract both domestic and foreign investment in the various sectors of the economy. This is to be achieved through Zambia's broad macro-economic and social policies, which include pro-poor economic growth, low inflation, stable exchange rates and financial stability. Developments in the Social Sectors;

Educational indicators reflect negative trends relative to the 2010 survey. For instance, the proportion of pupils in the right grade in line with the correct age (Net attendance rates) in 2015 for grades 1-7, 8-9 and 10-12 were 78.6, 30.2, and 25.6 percent, respectively. The gross attendance rates for grades 1-7 and 8-9 show similar trends to the net attendance rates. The gross attendance rate for grades 10-12 reduced from Percent in 2010 to 51.2 percent in 2015; Health indicators have also shown some improvements since the early 1990s.

The Zambia Demographic and Health Surveys in 2007 and 2014 found the HIV and AIDS prevalence to be 14 and 13.3 percent, respectively. Maternal mortality amplified from 649 per 100,000 live births in 1996 to 729 maternal deaths per 100,000 live births in the period 2001/2002. In 2007, maternal mortality declined to 591 deaths per 100,000 live births. The 2013 /2014, ZDHS indicates an additional decline to 398 deaths per 100,000 live births. Child mortality has consistently declined since 1996. Infant mortality rate per 1,000 live births was 109, 95, 70 and 45 in 1996, 2001/2002, 2007 and 2013/2014 ZDH surveys, respectively. Under-five mortality has equally been declining over the years. It fell from 197 deaths per 1,000 live births in 1996 to 168 deaths per 1,000 live births in 2001/2002, 119 deaths per 1,000 live births in 2007 and further went down to 75 deaths per 1,000 live births in 2013/14.

Results-based financing (RBF) is used by the Global Alliance for Vaccines and Immunisation (GAVI), the Global Fund, the World Bank, UK Department for International Development (DFID), USAID, and other donor agencies. Furthermore, it is encouraged by the Global Campaign for the Health, Millennium Development Goals (MDGs), and other development aid groups (4–6) to motivate patients (7–9), and improve the performance of healthcare providers (10–12), organizations, and governments (13). It should be noted that RBF is also referred to as pay-for-performance, performance-based funding, and output-based aid. All of these terms refer to the transfer of money or material goods conditional on taking

a measurable action or achieving a predetermined performance target (13).

In the health sector, Zambia had made notable progress in improving health and nutrition outcomes in the last decade. However, progress was insufficient to achieve some of the health and nutrition related MDGs. While under-five mortality (U5MR) decreased from 119 to 75 per 1,000 live births between 2007 and 2013/14 (CSO et al. 2014), this had still been high compared to the average for lower middle income countries (61 deaths per 1,000 live births) and insufficient to achieve MDG 4. The maternal mortality ratio (MMR) also fell from 591 to 398 per 100,000 live births between 2007 and 2013/14 (CSO et al. 2014), consequently this had been significantly above the average for Zambia's income group (260 per 100,000 live births). Chronic malnutrition in under-5 children decreased from 45.4% in 2007 to 40.1% in 2013/14 (CSO et al. 2014) moreover this had been far below the MDG target of 23%.

To compound this challenge there was low coverage and utilization of high impact maternal, child health and nutrition services. For example, whereas 96% of pregnant women received any antenatal care from a skilled provider in 2013/14, only 67% of these women delivered in a health facility, and a skilled provider (CSO et al. 2014) attended to only 64%. Some of the underlying causes of this were inadequate and poorly motivated health workers; an erratic supply of essential medicines and medical supplies; limited autonomy in decision-making at decentralized levels of the health system; and a weak monitoring and evaluation system. Critical among all these challenges was human resources, for health crisis which was evident from the limited availability and mix of skilled human resources, and which had contributed to an inequitable mix, absenteeism, tardiness, and poor morale among the health workers.

The 2009 Health Public Expenditure Review observed high rates of absenteeism (21 percent self-reported) and tardiness (43 percent self-

reported), equivalent to a total loss of 4,108 working days per month. Eliminating absenteeism and tardiness would translate to a gain of 187 full-time equivalent staff, enough to staff 21 rural health centres in Zambia. In an attempt to strengthen the health system and improve health-service delivery, Zambia has gradually been introducing Results-Based Financing (RBF) approaches in financing some of its health programs and activities to complement the recurrent departmental charges (RDC) which is the traditional input based financing. In RBF, “a principal entity provides a financial or in-kind reward, conditional on the recipient achieving pre-agreed actions and performance goals.” In principle, RBF can encompass various forms of output-based aid, provider or healthcare based incentives for performance and consumer incentives for behavioural change.

Therefore, it is by introducing incentives that reward results, RBF promotes greater accountability of service providers, and improves management, efficiency, equity of service delivery, and health information systems with the overall aim of strengthening service delivery to improve development outcomes. RBF has been advocated as a key transformative approach to health financing with potential to strengthen health systems, and improve health outcomes. In addition, existing evidence shows that RBF can help to strengthen health systems by decreasing costs of service provision, improving staff motivation and morale through the provision of staff incentives, and empowering providers and beneficiaries in the use of data for decision making, and decentralisation of health services. Zambia is a lower-middle-income country. In 2014, the GNI per capita was US\$ 1,760 (World Bank, Atlas method). However according to trading economics it is now at about US\$ 1,300.

The total population was estimated at 15.02 million in 2014, 60% of which resided in the rural areas. Against the backdrop of consistent market-led economic policies, Zambia began recording consistently high economic growth of above 6% in 2006, which went to 7.3% in 2012 after which it reduced to 6.7% in 2013, and 5.6% in 2014. Notwithstanding the positive economic

developments, poverty has persisted and income inequality is still high. The effect of economic growth on overall poverty reduction has been insignificant and the urban centred growth has not generated higher incomes and better basic services for rural residents. According to the Living Conditions Monitoring Survey (LCMS) of 2010, poverty levels remain very high with 60.5% of the population living below the poverty line and 42.3% in extreme poverty.

## A. 1.2. *Statement of the problem*

It is obvious that progress toward attaining MDGs 4, 5, and 6 requires a certain level of human resources to deliver health care services. The 2013-14 Zambia Demographic and Health Survey showed the maternal mortality ratio (398 deaths per 100,000 live births), infant mortality rate (45 deaths per 1,000 live births), under-five mortality rate (75 deaths per 1,000 live births), and HIV prevalence (13% among adults) to be high (CSO et al., 2015). The evolvment to improve these and other health-related statistics is hindered by several factors related to Zambia’s national health system; inequalities in service provision and utilization; limited financial resources for health facilities; and low productivity and motivation among medical personnel, including HRH shortages. The total expenditure dedicated to health 5% of GDP in 2013 is low, and therefore there is a bigger imperative to focus on the allocation of these resources to the health care workforce (WHO, 2013). RBF could be one way to meet this imperative.

Zambia, like many other low- and middle-income countries, faces severe health worker shortages across all levels of health care (Bangdiwala 2010; WHO 2006). The situation has changed little since the Zambian government, through its National Health Strategic Plan, declared that only half the required medical, nursing, and paramedical posts are filled in public health facilities a decade ago (MOH, 2005). Health worker shortage is the result of migration, poor staff morale and weak incentives (Callaghan et al., 2010; Zachariah et al., 2009).

An initial wave of Zambian health workers migrated to countries in sub-Saharan Africa, such as South Africa, Botswana and Namibia (Ammassari, 2005). Moreover, health workers subsequently went to Europe, North America, Australia, and New Zealand (Ammassari, 2005). A mass exodus of health professionals has also been observed within Zambia from rural to urban areas, from the public to the private sector, and from curative to preventive care (Kamwanga et al. 2013; Ferrinho et al., 2011).

Brain drain and workforce mal-distribution are exacerbated by increased demands placed on the health systems by patients with communicable and non-communicable diseases alike (Samb et al., 2010; Lewin et al., 2008). As a result, Zambian health workers are not evenly distributed across geographic areas within countries and across countries (Songstad et al., 2012; WHO, 2006). Ways to shape the workforce dedicated to delivering care related to HIV/AIDS (e.g. Bazant et al., 2014) and maternal and child health (e.g. McPake et al., 2013) have been demonstrated in the research literature. This case study is focused on the effects of financial incentives to improve health care service delivery in Nchelenge. Recently Nchelenge district had audit queries from World Bank in Kashikishi RHC and Nchelenge RHC what is obtaining in the other facilities. Disbursement of RBF funds does not occur before results are achieved. How accurate are these results when they are collected and verified by internal verifiers like district health offices and provincial health offices? If these results are not accurate, should we religiously trust what is being funded as services rendered to the clients?

## **B. 1.2.1 Study justification**

Due to the unintended consequences of RBF approaches, some authors have requested more research on RBF in the health sector (Eldridge and Palmer, 2009; Miller and Babiarz, 2013). The consensus is that the growing body of research on performance incentives has not provided enough evidence on the design and underlying conceptual issues on performance incentives (Miller and Babiarz, 2013). The agreement is that the growing body of research

on performance incentives has not provided enough evidence on the design and underlying conceptual issues on performance incentives (Miller and Babiarz, 2013). The funder will get to know whether its funding is being used for its intended purpose. The government will understand the effect RBF is having in Nchelenge district. The District Health Office will have a true picture of the real state of the RBF project in the district. Facilities will definitely be made aware of the effect of inaccurate reporting of the achievements; the community will also have the knowledge on how the funds for the project is benefiting them. Clients will recognise the effect RBF project.

## **1.3 OBJECTIVES OF THE STUDY.**

### **1.3.1 Main objective**

The main objective of this study is to investigate the effect of RBF funds on access and utilization of maternal and child health services in five (05) Health Centres in Nchelenge District.

### **1.3.2 Specific objectives**

To investigate the accuracy of results achieved on the number of deliveries attended by skilled health workers.

1. To identify the trends in mothers accessing first Antenatal visits in the first trimester.
2. To analyse the number of children being offered Post-Natal Care (visits) within 6 days.
3. To explore how the incentives are used to increase the number of new contraceptive users at the end of the month.

## **C. 1.5 Significance of the Study**

RBF in Nchelenge wants to leave a legacy! Once the data is collected and the findings are analysed using excel, the authorities will be able to assess and appreciate the effect of the RBF project in Nchelenge district. This could be of a positive nature or negative nature. Furthermore, interventions of the facts that the study will reveal. This could be an increase in the funding

allocation, an increase in human resources, strengthening of the verification exercise by the district health office and indeed the facilities will realise that funds, they receive are either being used for the intended purpose or not. Furthermore, are these funds put to better use and help improve the health care services in Nchelenge?

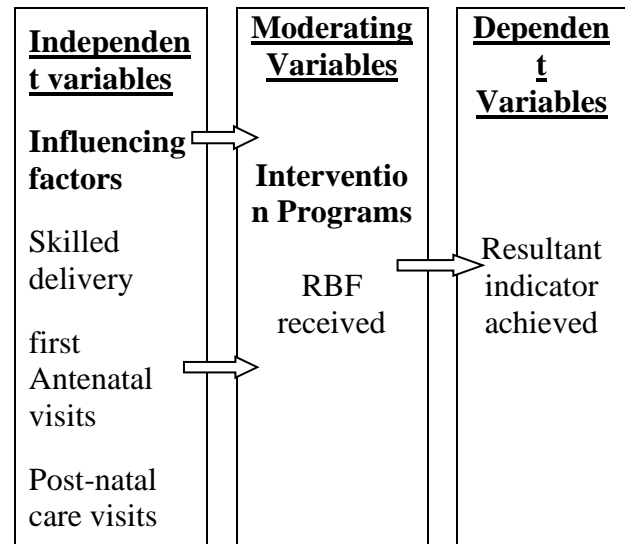
### D. 1.6 Limitations

The primary limitation of the assessment methodology relates to the distances between DHO and the facilities especially the island of Kilwa. The researcher accompanied the DHO team, on its routine program and accompany them on their routine activities, because it required hiring of a boat, this was prohibitive economically. The other was the risk on water transport. As early as this year there had been a national disaster from the use of local boats due to over loading. Remote and insecure areas are not included in sampling, leading to a sampling bias. There is a selection bias for the HCC members who are illiterate, as the questionnaire required some level of literacy. These members needed translation to be done by members of staff and cannot be very reliable. Clients residing in the village where the HC is located were likely to have better access to health services. Other biases also exist such as “halo” bias whereby respondents tended to provide favourable impressions and perspectives of the activities. Other manifestations of such respondent bias include understating the actual situation or circumstances in anticipation of receiving donor support.

Interpreter bias is also a concern, especially in a qualitative study. The nature of the questionnaire for facility staff and community left room for interpretation by the fellow staff, to mitigate these biases, the number of researcher took upon himself to try to make the respondents understand the questions. The researcher maintained regular communication to relay all relevant information for the staff, in case there were technical matters that addressed, or any particular questions that were more prone to biases than others were.

### 1.7 Conceptual Framework

Figure 01: Conceptual Framework



The conceptual framework has independent variables, which fulfilled to achieve the desired results for funds released by the RBF World Bank. The respondents for these variables will be the facility staff NHC and the community. These once verified by the District Health Office staff who trained in the RBF project and conduct quarterly data audits to compare with what the facilities claim to have achieved during the period under review using self-generated invoices. For e.g. skilled delivery, registers checked for details, which include the person (staff) who delivered the mother. This has to be a midwife, nurse, clinical officer or doctor. Where the staff is alone the deliveries conducted by traditional birth attendants and any other cadre verified hence not counted.

The challenge is to verify that the skilled Staff do the delivery. This is by checking that there was no gaming or cheating. The independent variable first Antenatal visits requires thorough checking of previous monthly records to ascertain the duration of the gestation in weeks and when the pregnant client actually attended the first Antenatal visit. Staff gaming or cheating can be falsifying dates to capture more mothers; this can be verified with skill and the use of gestation wheel as a tool.

The independent variable Post-natal care visits require that this conducted within 6 days. This is difficult where mothers stay far from the centre

and gaming is possible to increase the figures to get more funds. Further scrutiny is required to ascertain that it be conducted within 6 days.

Finally, the dependent variable depends on the DHO verified inputs that is the reason the DHO staff will be part of the respondents.

## 1.8 Operational Definitions of Concepts

RBF will mean Results based Financing, DHO means the staff at the district health offices that conduct quantity audit, facility staff will mean the in-charges of the facilities visited and their members of staff. HCC will denote the volunteers that have elected to stand for the community and represent it on health matters like RBF and are a bridge between the facility and the community. This group of people are key in RBF. The community will mean the general populace and beneficiaries of the RBF funds that channeled to the facilities. These are the mothers and children from each catchment area.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Overview

Zambia made strides towards the attainment of health-related Millennium Development Goals (MDGs). This progress shows the reduction of under-five mortality rates (U5MR) from 119 to 75 per 1,000 live births between 2007 and 2013 (CSO et al. 2014). During the same period, Zambia's maternal mortality ratio (MMR) reduced from 591 to 398 per 100,000 live births (CSO et al. 2014). Despite these achievements, Zambia was unlikely to meet any of its health-related MDGs in 2015. Case in point, the percentage of children age 12-23 months who were fully vaccinated remained unchanged at 68 percent between 2007 and 2013/14 (CSO et al. 2014), and it was unlikely that Zambia would make gains large enough to close that gap in one year. Although at US\$44 the total per capita health expenditure in Zambia was marginally higher than the average for Lower Middle Income Countries (US\$43), service delivery was worse-off (Chansa et al. 2014).

Zambia's health sector struggled with ongoing inefficiencies in resource allocation and utilization, a high and increasing burden of

communicable and non-communicable disease and poor quality of care (MOH, 2011). Other challenges included inadequate and poorly motivated human resources for health; erratic supply of essential medicines and medical supplies; limited autonomy in decision-making at decentralized levels of the health system; and a weak monitoring and evaluation system (MOH, 2011). The Zambian Health System faced a human resources crisis because of shortage of skilled workers, imbalanced skills mix, inequitable distribution, chronic absenteeism, tardiness and low morale (WB, 2009). In 2008, in an attempt to strengthen the health system and improve health service delivery, Zambia launched a results based financing (RBF) Pre-Pilot in Katete district financed by the World Bank through the Health Results Innovation Trust Fund. The Katete Pre-Pilot designed to conceptualize and refine the RBF model in Zambia before countrywide roll out. The motivation to implement RBF in Zambia driven by its success in several other African countries as a health financing innovation with the potential to strengthen health systems and improve health outcomes (Murray et al., 2007). With RBF, a principal entity provides a financial or in-kind reward conditional on the recipient undertaking a set of pre-determined actions or achieving a pre-determined performance goal.

It encompasses output-based aid, provider or healthcare based incentives for performance and consumer incentives for behavioural changes (Eichler, 2006). By introducing incentives that reward results, RBF promotes greater accountability of service providers and improves management, efficiency and equity of service delivery and health information systems. An increasing body of evidence shows that RBF can strengthen health systems, help countries use limited resources effectively, improve staff motivation and morale and empower providers and beneficiaries (Rusa et al., 2009; Basinga et al., 2011; Soeters et al., 2011; Gertler and Vermeersch, 2012). On the contrary, RBF approaches have the potential to create tenacious incentives and unintended consequences (Eldridge and Palmer, 2009; Ireland et al., 2011; Miller and Babiarz, 2013).

Miller and Babiarz (2013) argue that the use of incentives to improve performance has the potential to incline efforts towards contracted services at the expense of non-contracted services. They further argue that RBF may lead to heterogeneity in rewarding efforts across contracted services when health providers spend much of their time on the provision of services which yield the largest (net) marginal return (Miller and Babiarz, 2013).

Another concern is that RBF approaches (which in most cases place emphasis on extrinsic incentives) may erode intrinsic motivation in the end. Other authors (Ireland et al., 2011) view RBF as a financing mechanism rather than a strategic tool for reforming health systems in developing countries. Eldridge and Palmer (2009) further question the rationale of implementing RBF schemes in less developed countries where health systems are weak, contending that implementing RBF requires: (i) strong political and management support; (ii) room for change and innovation to maximize efficiencies; and (iii) strong health information and reporting systems (Eldridge and Palmer, 2009). Banerjee et al. (2008) add that sufficient capacity to enforce contracts, collect data and verify performance is necessary for pay-for-performance schemes to succeed. Due to the unintended consequences of RBF approaches, some authors have requested more research on RBF in the health sector (Eldridge and Palmer, 2009; Miller and Babiarz, 2013). The consensus is that the growing body of research on performance incentives has not provided enough evidence on the design and underlying conceptual issues on performance incentives (Miller and Babiarz, 2013).

The Zambia RBF pilot Programme was designed to strengthen the health system and improve the coverage and quality of MCH related health services. A potential quantitative impact evaluation assessed the effectiveness, and cost-effectiveness of the RBF pilot. Zambia RBF pilot Programme summarized the key results and lessons learnt from their exercise. Two additional policy questions on the level of incentives and the likelihood of audit, which

were also part of the overall evaluation. The RBF was designed to have a positive effect on the quantity and quality of targeted MCH services, and functionality of the health system. In their evaluation they investigated the impact over a broad range of targeted and non-targeted indicators related to maternal and child health services.

Out of the 07 indicators directly targeted by the RBF Programme through the incentive structure, seven were directly measured or proxied in the population. Some of the measures responded to the RBF intervention, with a roughly similar set also showing improvements under the enhanced financing arm. Most notably, institutional deliveries (in-facility delivery rate) in RBF districts increased by approximately 13 percentage points relative to the pure control districts suggesting larger gains for this indicator in the enhanced/input financing arm. Results for deliveries by skilled providers also show improvements in both the RBF and districts relative. This suggests that the RBF Programme was protective with respect to some measures of immunization coverage any immunization and DPT injection which were significantly higher than in RBF communities as compared to control districts. However, these results were not precisely estimated.

As regards to structural quality, results on the RBF vs control districts were largely inconclusive but the RBF districts performed better than control districts in terms of the status of infrastructure and availability of functional medical equipment. The quality of delivery rooms in RBF facilities was better than the delivery rooms in RBF and control districts while the quality of curative care in RBF facilities was better than control facilities. Process quality during maternal and child health care was not directly targeted by the RBF Programme (with the exception of the two process measures tied to ANC – IPT and HIV testing). The study measured mother's knowledge of danger signs during pregnancy which showed that women residing in RBF districts were significantly more likely to list several out of the 12 danger signs as compared



to those residing in RBF districts who were not able to list any.

Despite higher knowledge, results from the household survey showed minimal progress on process quality of maternal health care under the RBF Programme except for the provision of a tetanus injection (vs RBF); any iron tablets and malaria drugs were higher in RBF communities than control communities. RBF districts witnessed better improvements in blood tests and any iron taken during ANC than the RBF. Results from patient recall showed that more women reported to have received advice on diet in RBF facilities (vs RBF), and having had their abdomen measured and palpated (vs control districts). However, women who attended RBF facilities reported to have received explanations on the side effects of iron folic acid tablets as compared to those who went to RBF facilities. The results also showed no gains in process quality for postnatal care in RBF communities. On the other hand, mothers from RBF communities reported higher immediate initiation of breastfeeding and receipt of Vitamin A after delivery as compared to both RBF and control communities. Clients who visited RBF health facilities were more satisfied with the time that the health workers spent with them. The data shows that health workers in RBF facilities spent sufficiently more time during consultations with their patients as compared to both RBF and control health facilities. There was also more trust in health workers operating in RBF facilities as compared with RBF facilities for both maternal and child health services. When it came to understanding the causal and behavioural mechanisms through which RBF and Enhanced financing (RBF) achieved these gains, the evaluation partially investigates this question.

The health worker interview found that the level of job satisfaction of health workers increased as a result of the RBF and health worker turnover was lower, suggesting that more engaged health workers with more experience in the catchment area played a role. These gains in satisfaction and retention are relatively larger in RBF areas than in RBF areas

indicating the likely influence of staff incentive payments (which were not present in RBF). When investigating the role of staff incentives in determining RBF effectiveness, the power of the incentive was a critical aspect to note individuals in general exhibit a greater response to higher monetary incentives. In terms of the relative power of the RBF incentive, the amount which was received by each member of staff was dependent on the individual's performance scores, actual RBF income realized, investment priorities, the number and composition of staff at the health facility, and individual salary levels. Subsequently, health workers received about 10% of their official staff salaries on average as RBF staff incentives.

At the start of the RBF project, the proportion were higher but 6 months after the start the RBF project, the Zambian Government increased staff salaries for all civil servants ranging from 100% to 200%. While there was little empirical evidence on what constitutes optimal incentive levels either at the facility or individual worker level to foster maximal effectiveness of an RBF-type mechanism, evidence shows that small incentives often result in no appreciable gain in targeted outcomes (Friedman and Scheffler, 2015). The relatively small proportion of total health worker remuneration coming from the RBF mechanisms suggests that greater gains may have been possible if the RBF incentives were higher. Determinants of Programme effectiveness also included contextual and implementation factors. Some of these relate directly to the power of the individual worker incentive. While the above staff incentive arrangement was designed to facilitate an increase in staff incomes, several health facilities agreed with their staff members to give up whole or part of their incentive/bonus during a particular quarter in order to make a large investment, e.g. purchase of a motor cycle, water pump, etc. This could be considered a sign of dedication to improving the welfare of the community, and/or altruism. Nevertheless, in most cases, such capital investments could be spread across a number of quarters, which can affect staff motivation.

In terms of non-wage resources, RBF performance grants at the health facility level complemented GRZ resources significantly. The results show that the total RBF performance grant was about 6 times the value of the GRZ grant over the project period. However, the RBF grant was growing faster than the GRZ grant and the latter actually declined between 2013 and 2014. There could be several explanations for this but a study by Dusseljee et al. (2014) observed that the district management in the RBF health facilities were reducing the amount of the GRZ grant that was being disbursed to the health facilities. This suggests that there may have been aid fungibility<sup>15</sup> or substitution of financing because the proportion of the GRZ grant to the RBF grant decreased by half between 2012 and 2014. This further suggests that the RBF grant was not additional to the existing financial resources at the RBF health facilities in accordance with the project objectives. This had a number of policy implications on aid effectiveness as a whole, and efficacy of the RBF Programme.

The RBF funds may just have substituted rather than complemented GRZ spending. To mitigate this problem, future RBF programs could consider putting in place indicators linked to GRZ budget performance at national and district levels to ensure that the RBF grants are additional to GRZ grants. Over the project period (2012-2014), the total GRZ operational grant was only 18% the total value of the RBF performance grant. Aid fungibility was when donor funding for health substitutes for rather than complements health financing by recipient governments. Given the high levels of RBF grant funding, far above the GRZ grant, questions may be raised on the future financial sustainability of the RBF Programme. However, considering that only half of the RBF funds were being used for operational activities while the rest were spent on staff incentives, sustainability may not be an issue. The Zambian Government can easily absorb this funding while the loss in staff incentives might not have a huge impact since the proportion of the staff incentives to the staff salaries was only 10%. It should also be noted that the GRZ was responsible for staff salaries, which were far much higher than the RBF grants.

Apart from financial sustainability, the study demonstrates that RBF can be successfully implemented through a “contracting-in” public health system using the existing government systems and structures in Zambia. In the end, this approach could facilitate institutional and affect sustainability. This is highlighted in the Paris Declaration on Aid Effectiveness, as well as other studies on aid effectiveness<sup>16, 17</sup> where the common agreement is that using a country’s own institutions and systems to implement projects can strengthen a country’s capacity to implement programmes, and programmes being implemented can be sustained. In contrast with RBF facilities, health facilities in RBF districts could not spend the matching grant on staff incentives, which were about 47% on average in the RBF districts. The money disbursed to the health facilities in RBF districts were required to be retired before replenishment, which caused further disbursement delays. This was conflicting to health facilities in the RBF arm where RBF payments were disbursed directly in the health centre bank accounts’ and didn’t needed to be retired. Additionally, in terms of autonomy over the use of funds, RBF health facilities were undoubtedly better than RBF health facilities.

The results show that the funds for RBF health facilities were not being fully disbursed from the RBF district to the RBF health facilities. In its place, managers in several RBF districts used part of this money (which was solely meant for RBF health facilities) for centralized procurements, and only disbursed the balance of what remained. A study by Dusseljee et al. (2014) confirms this finding. On the contrary, in the RBF arm, the intended quantity of money reached the health facilities because it was sent directly into the health facility bank accounts. This facilitated fiscal decentralization and greater autonomy over resources at facility level. To contextualise the discussion on managerial autonomy at health facility level, the study shows that RBF facilities (vs. RBF) reported significantly higher autonomy on service provision, clarity on policies and procedures for doing things as well as the overall autonomy index.

Their study further revealed that RBF health facilities reported more frequent assessment of staff performance. The higher number of performance assessment at health facilities in comparison with both RBF and RBF facilities. District hospitals also conducted more supervisory visits in RBF than RBF facilities. In addition, health centre committees were more active in RBF facilities (vs. control). These findings demonstrate greater accountability and transparency in planning, resource use, service delivery, and community participation. Institute for Health Sector Development (2004) cited by Vergeer and Chansa (2008). The relevant point from the design perspective is that disbursement of RBF financing directly to health facilities facilitated fiscal decentralisation. The study was designed to equalize total RBF financing between health facilities in RBF districts and RBF districts. By using two different disbursement mechanisms, the study was able to measure the success of each system in terms of overall level of RBF funding being utilized. Results show that health facilities in the RBF districts did not receive the same amounts as the RBF districts due to delayed retirement and low absorptive capacity. By the end of the RBF Programme, the proportion of disbursement to RBF districts was only 56% of what the RBF districts had received. Disbursements to RBF districts lagged behind mainly due to: delays in disbursing the funds from the district accounts to health facilities as an imprest, and delayed retirement by health facilities, which in turn contributed to delayed replenishment of the district account. It is clear that disbursement mechanisms affect both absorptive capacity and the level of available funding.

The study was able to explore some of the causal and behavioural mechanisms through which the RBF could have achieved and/or not achieved gains in the targeted indicators. For the enhanced financing arm, the key question is whether the gains were the result of availability of inputs, increased financing, earmarking of funds for priority maternal and child health interventions, or other factors. A corollary question is whether greater gains could have been observed in the RBF district arm if financial flows to RBF facilities actually equaled those received by RBF facilities. As earlier stated, the IE had three districts in each

province and the same Provincial Health Office (PMO) was managing these districts. In line with Government guidelines, all districts in a province attend quarterly GRZ implementation review meetings and it is possible that during these meetings there could have been cross-pollination of ideas.

Consequently, health facilities in the RBF districts may also have been implementing RBF initiatives and could have behaved as if they were incentivized. For example, one World Bank supervision mission noted that some RBF districts were using some form of output-based approaches. With no concealed investigation, the study units were aware of the experiment and the RBF districts could have tried to outperform the RBF districts. For the RBF, the key question is whether the RBF districts could have achieved even more. In exploring this question, we noted that the Zambia RBF project was being implemented in a health system that already had high coverage in some of the key MNCH indicators being incentivized. As such, perhaps it would have been more prudent to have implemented a target or coverage based performance incentive framework rather than fee-for-service. Furthermore, the results show that health workers received about 10% of their official GRZ staff salaries on average as RBF staff incentives by the end of the pilot period. This may not have been sufficient to have induced change as discussed above.

RBF performance grants were being disbursed directly into bank accounts at RBF health facilities while the matching grants for health facilities in RBF districts were being disbursed through bank accounts at District level. Funds disbursed to RBF health facilities needed to be retired (accounted for at central level through proof of receipts and other supporting documents) before replenishment. The study showed that the RBF (vs RBF) provided more total health benefits but at a higher unit price. Nevertheless, in comparison with the two control groups, the RBF Programme is a cost-effective approach in improving maternal and child health.

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All these values are less than the GDP/capita of \$1,759 in 2013 (mid-year of RBF Programme) in Zambia the RBF Programme was cost-effective in comparison to RBF and Control. For the CEA analysis, it was observed that health system investments and gains that may have occurred only in the RBF group weren't fully evaluated. In addition, the confidence bounds around these estimates were not able to definitively distinguish the two approaches partially due to the uncertainty inherent in CEA studies. Nonetheless, they concluded that both the RBF and control are cost-effective when compared with Zambia's level of income in 2013. The overarching conclusion was that both the RBF and control contributed to increased utilisation of key MNCH services in Zambia. However, as compared to the Control, RBF had a more positive effect on health systems governance particularly availability of equipment, structural quality, managerial autonomy, accuracy in reporting, satisfaction and retention of health workers, and level and predictability of funding. Internal and external verification of results, and regular supportive supervision, which were a key feature in the RBF districts, could have contributed to these successes. Another feature was that purchasing mechanisms were enhanced in the RBF and this potentially contributed to greater efficiency and value for money. These important elements could not be achieved in the input financing arm.

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Even though steady progress had been made maternal and child deaths almost halved between 1990 and 2013 many low - and lower middle - income countries, particularly those struggling with resource and governance constraints, it was obvious that these countries would still fall short of the Millennium Development Goals (MDGs) to reduce child mortality and improve maternal health. This is emphasised because, In 2012, 6.6 million children under five years died around the world, of all child deaths, 44 percent would occur within the first month of life, The child mortality rate in a low-income country was over 15 times that of a high-income country. The maternal mortality rate in a low-income country was nearly 30 times that of a high-income country and The poor definitely still disproportionately affected in 81 low and middle - income countries, the median coverage of births attended by skilled health professionals was only 56 percent in the poorest quintile.

Health is a major contributor to poverty, people with low incomes tend to have higher rates of many illnesses; ill health leads to impoverishment because of out of pocket payment for health care, and not being able to earn income and save money. Worldwide estimates are that out-of-pocket health spending forces 100 million people into extreme poverty every year and inflicts severe financial hardship on another 150 million people. Health recognized as a form of human capital because better health increases the productivity of workers, family income, and therefore, the economic growth of a country. In addition, healthier children have higher rates of school attendance and better cognitive development, contributing to a better-qualified labour force, productivity and economic growth. The 2013 Lancet Commission on Investing in Health shows that between 2000 and 2011 improvements in health may have accounted for as much as 24 percent of growth in full income in low - and middle - income countries. With appropriate mobilization of resources, the Commission suggests that low - and middle - income countries could improve their maternal and child survival rates to equal those found in upper middle - income countries within a generation. As part of the global effort to accelerate progress on this issue. The World Bank Group and the World Health Organization (WHO), aim to ensure that all people (no matter how rich or poor, regardless of where they live or their gender) have at least 80% access to essential health services, like child immunization and delivery by skilled staff by 2030.

RBF approaches focus on the delivery of high-impact, low-cost interventions that are proving to be successful and may be one of the smartest investments that countries and development partners can make towards that goal of Universal Health Coverage. Martin Sabignoso, the national coordinator of Programa Sumar at Argentina’s ministry of health says:

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assistance, autonomy in the use of the funds, and mechanisms to strengthen the capacity of health centres to deliver services.”

The Government of Democratic Republic of Congo (DRC) adopted the Health Systems Strengthening Strategy (Stratégie de Renforcement du Système de Santé) to implement financing reforms, avoid wastage, and achieve national health objectives. Among the strategies to achieve financing reforms, RBF emerged as the most promising strategy, compared to other types of financing, namely input financing. RBF is a strategy for attaining positive health results through financial incentives. RBF schemes developed for both supply (health worker, facility, District Health Team, community) and demand (patient/client) sides of the health system. A demand-side RBF intervention may give households cash incentives to receive preventive care services or to encourage completion of treatment. A supply-side RBF can contribute to increasing the quality of care and range of services, and generating positive health outcomes in two primary ways:

First, by incentivizing providers to put more effort into specific activities with explicit performance targets. Secondly, by increasing the amount of resources available to finance the delivery of health services. Motivating health workers to provide quality services and keeping them in the public sector has been a particular challenge for the health system in DRC, as in many other countries. Fixed salaries with raises that do not tied to performance often lead to low productivity, poor quality, absenteeism, and lack of innovation. Moreover, payment of fees by clients for health services tends to result in greater attention to fee-generating services such as curative care, at the risk of preventive care and quality of services. RBF designed to be a more productive alternative to input financing. Rather than granting an advance payment, RBF pays for outputs.

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What these terms all have in common is a transfer of resources that is contingent on a predetermined set of performance criteria met. Moreover, in this paper the author has adopted Musgrove’s (2011) definition of RBF as “any program where the principal sets financial or other incentives for an agent to deliver predefined outputs or outcomes and rewards the achievement of these results upon verification.” Country-specific evidence suggests that the type and size of incentive packages are significant, but not adequate predictors of change for RBF interventions, and there is limited generalizability on existing studies because each RBF projects offers different bundles of incentives to different categories of workers. Basinga et al.’s (2011) landmark evaluation, for example, concluded that the size of payments significantly influenced the delivery of maternal and child services in Rwanda.

Yet Vujicic (2009) inferred that if financial incentives in Cambodia were too high, they would not have any impact on health worker’s behaviour. He also found that a 52% salary increase had a null effect on service quality improvements in Malawi. Even further, Ariely et al.’s (2009) experiments demonstrated that very high incentives could backfire and lead to

a decrease in performance. Likewise, Das and Sohnesen (2007) demonstrated that higher levels of pay resulted in lower levels of physician effort in Paraguay. These two studies point to a threshold in RBF's effect on performance. This is crossing the threshold; the intended effect of financial incentives on health worker motivation and performance replaced with adverse effects such as distortion, or a shift in focus on targeted services at the expense of other services; gaming, or false reporting.

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To date, there has been too little focus on the design of RBF interventions, the circumstances in which they implemented, and the potential to improve both health provider and facility performance. In addition, the literature on RBF payments in health care delivery, especially in low- and middle-income countries, is nascent. At the individual worker level, the models tease apart the type of incentives, as well as the combination of incentives, that could improve the personnel shortage, low morale, and poor

productivity. Introducing monetary incentives to designated health facilities could, in theory, help achieve systemic objectives to increase the availability, distribution, and performance of the workforce. At the facility level, they lay out a set of enabling and disabling conditions that are mediators of RBF and HRH. The microcosm through which health services delivered mirrors labour market conditions and merits further research attention (Herbst et al., 2011). To top it up, findings show strong gains in service utilization and quality of service because of the RBF. Pregnant women in RBF districts experienced a relative gain of 13.6 percentage points in the likelihood to deliver in a facility compared to pregnant women in non-RBF districts.

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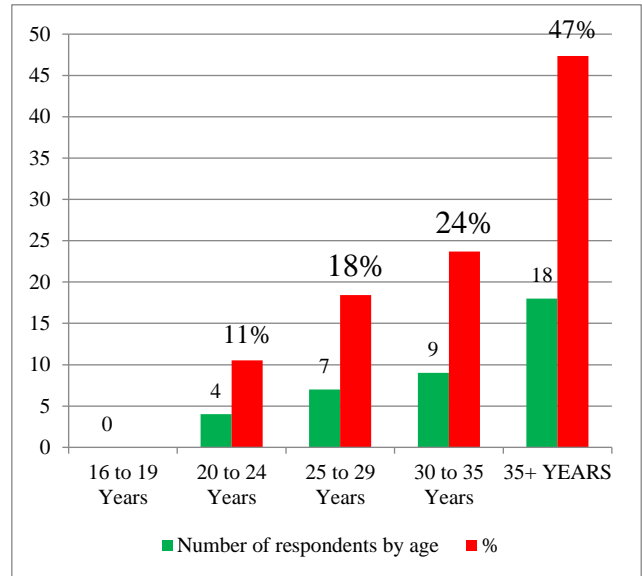
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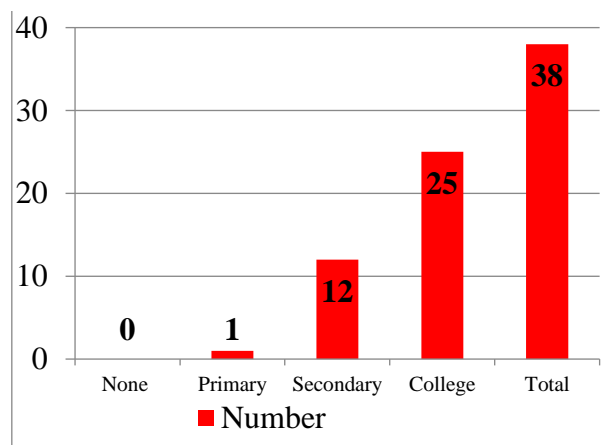
## E. CHAPTER 4: RESULTS / OR FINDINGS

a) **Figure 2: How old were you at your last birthday?**



Respondents showed that only 04 (11%) were between 20-24 years and 18(47%) were between 35 years and above. Significance of this is that most of the staff are not teenagers, which should be a sign of maturity; the normal trend is that clients in Nchelenge prefer to be attended to by elderly health workers. This is supposed to be a good thing for indicators as more clients will be willing to come for service at the facilities.

Figure 3: Education level attained



The data shows that 25 respondents have college/university level education which is 25 (66%). and 12 (32%) have only secondary level

education. These are mainly classified daily employees and Community Health Assistants (CHA). It is evident that a good number of the services offered is by skilled staff, which is ideal for RBF and improve indicators in the district.

Figure 4: What is your marital status?

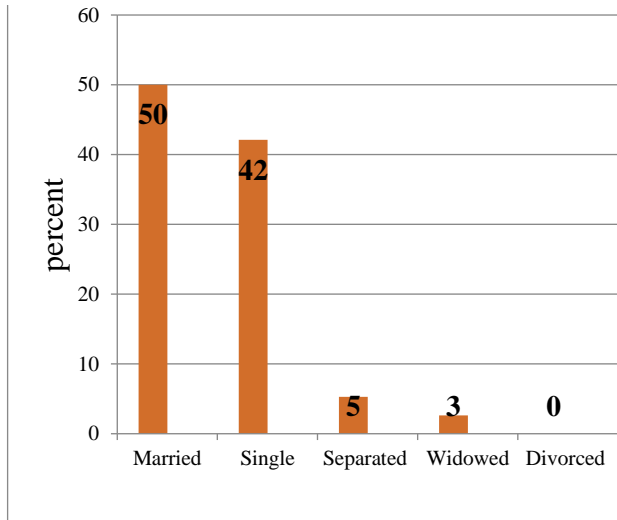
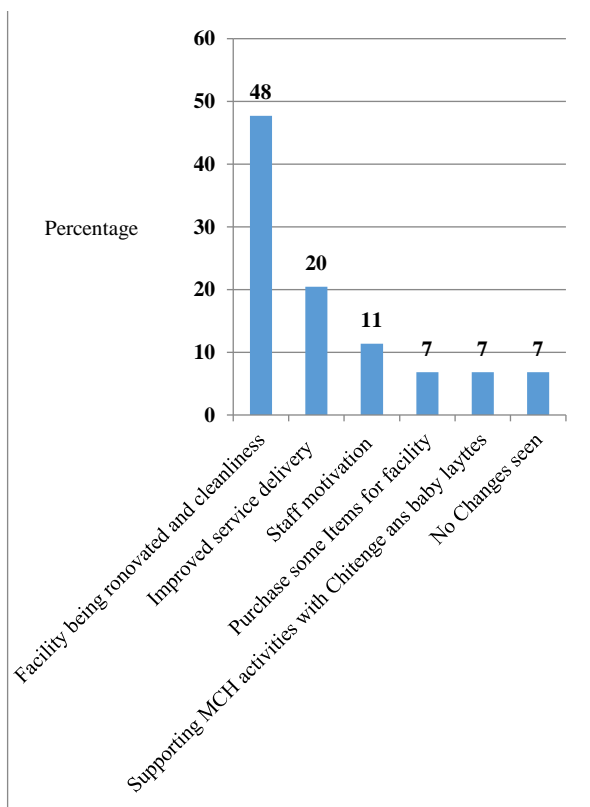
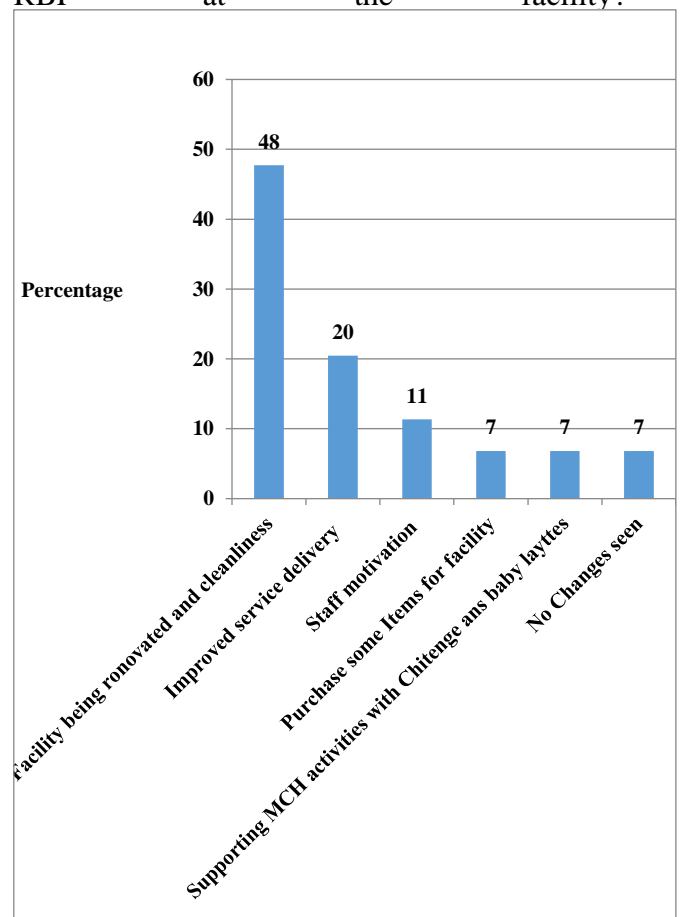


Figure 5: What has been the benefit of having RBF at the facility?



The question as to “What is your marital status”; the table shows no one is divorced or widowed. A case, which could be untrue, as people feel uncomfortable to talk about their marital status if they are neither single nor married. This is traditional culture issue as it shows one to be either unlucky, not trustworthy for marriage, promiscuous, playful or not a good person. This is just like asking people whether they are pregnant or not? The answer one can get would be questionable. However, the table shows that Separated are (5%) respectively. While (50%) are married. A good number are still single at (42%).

Figure 6: What has been the benefit of having RBF at the facility?



Tables shows that 48% has been helped by their facilities being renovated and cleanliness of facilities has improved.

Figure 7: What advantages come with having RBF at the facility?

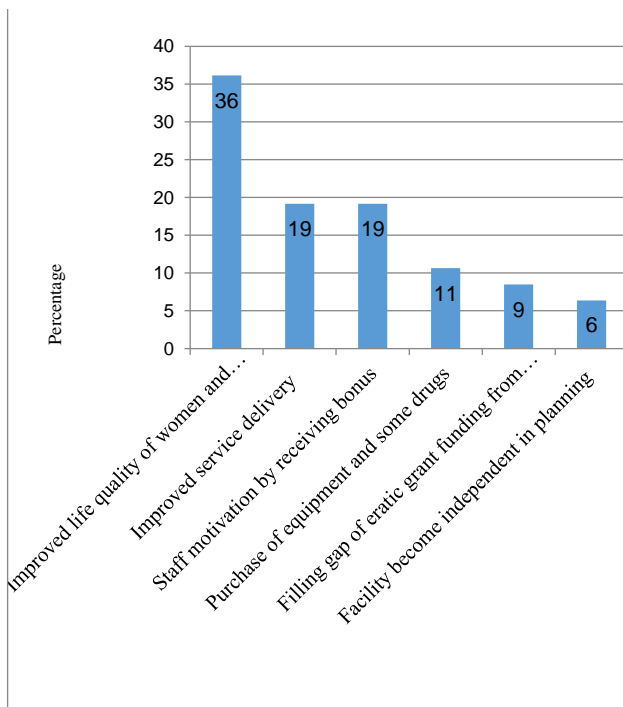
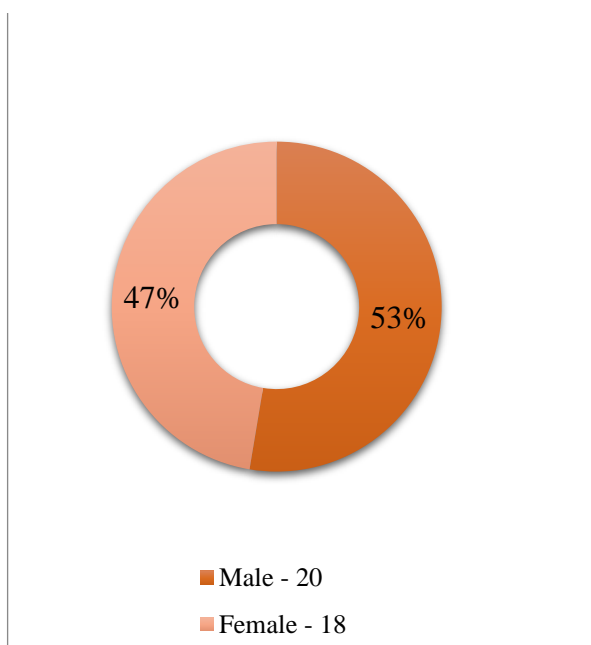


Table shows 36% of the respondents feel that it has improved life quality of women and children while 6% has become independent I planning for the facility activity

Figure 8: What proportion of staff has been reached with by gender RBF at the facility?



Note: chart showing gender

Figure 9: What proportion of staff know someone trained in community RBF at the facility?

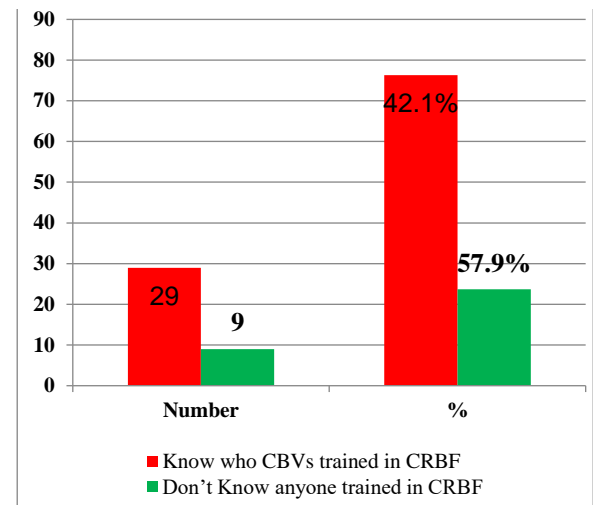
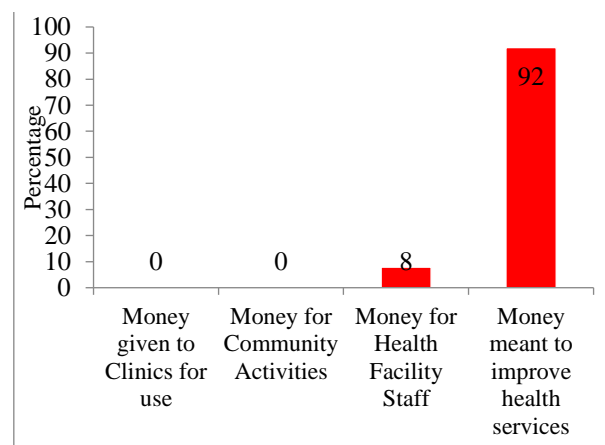


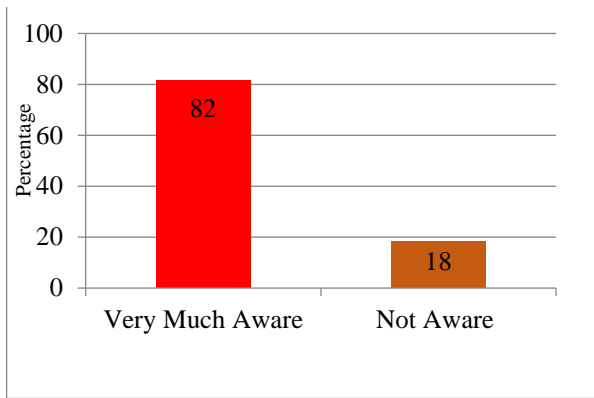
Table indicates the number of CBVs who know people that are trained in community RBF and those who do not know anyone.

Figure 10: What do you understand about the RBF project?



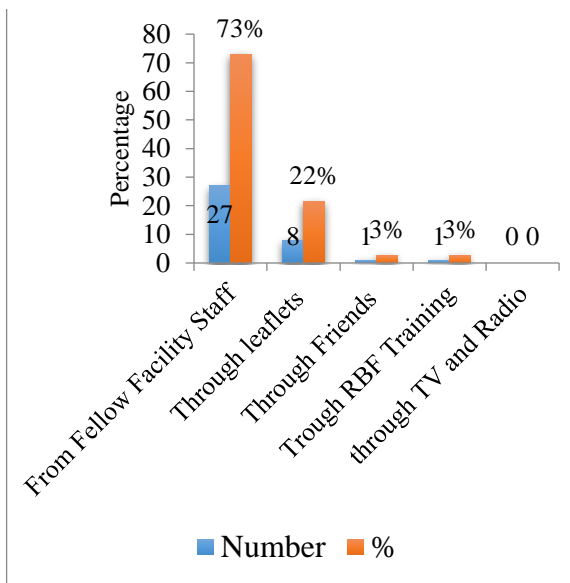
92% felt that RBF is money meant to improve health services

Figure 11: Are you aware of the RBF project?



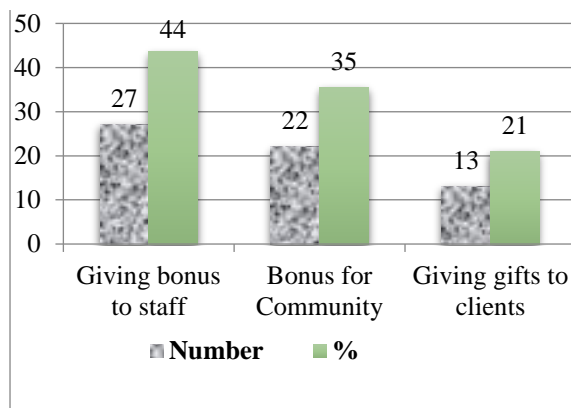
82% were very much aware of the RBF project while only 18% were not aware of the project.

Figure 12: Source of information on RBF project?



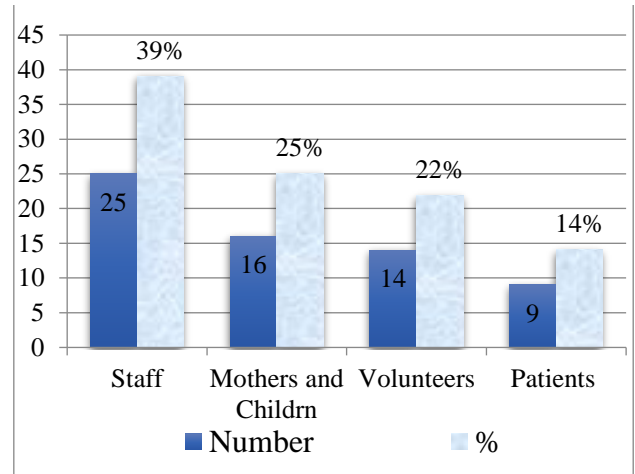
73% knew about RBF from facility staff and 3% from RBF training.

Figure 13: use of RBF project funds?



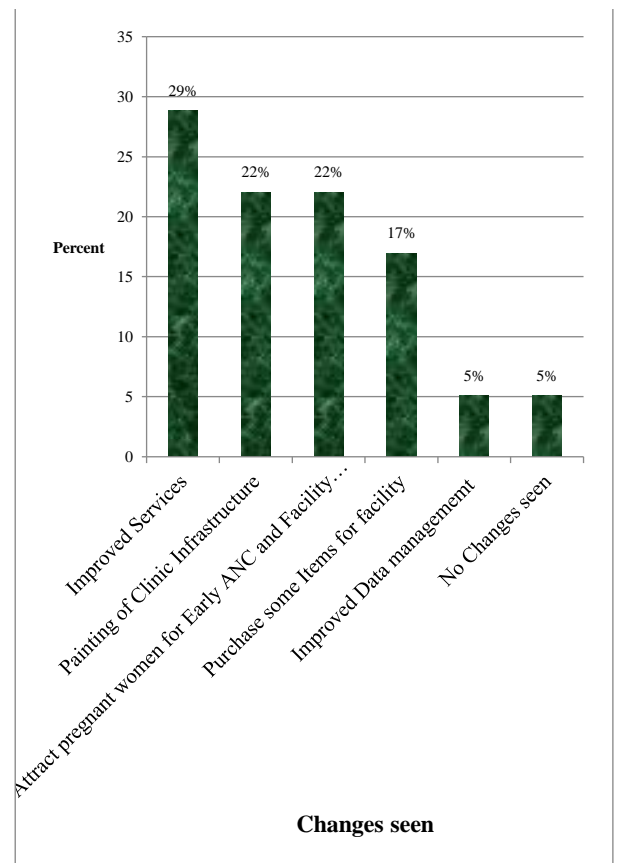
44% thought the use for RBF funds was to give staff bonuses and 21% thought it was to give gifts or incentives to clients.

Figure 14: who is entitled to get RBF project funds?



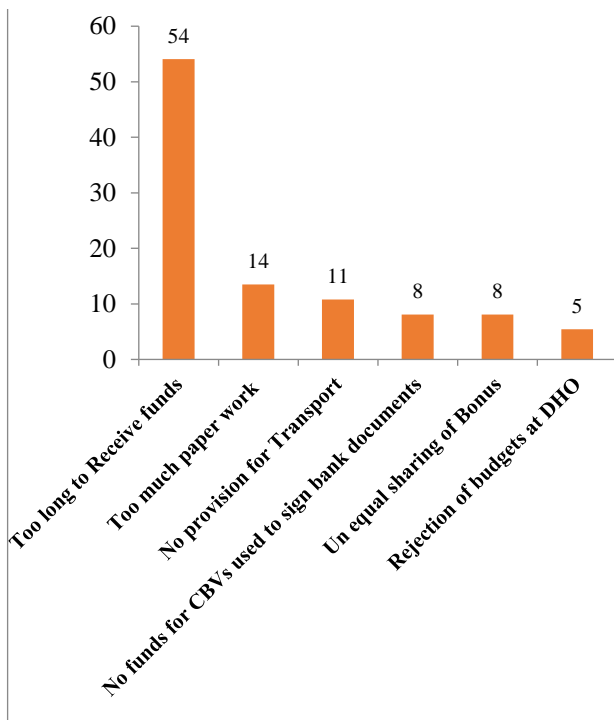
39% felt that only staff are entitled and 14% felt that it was meant for patients.

Figure 15: what changes have you seen since the introduction of RBF project funds?



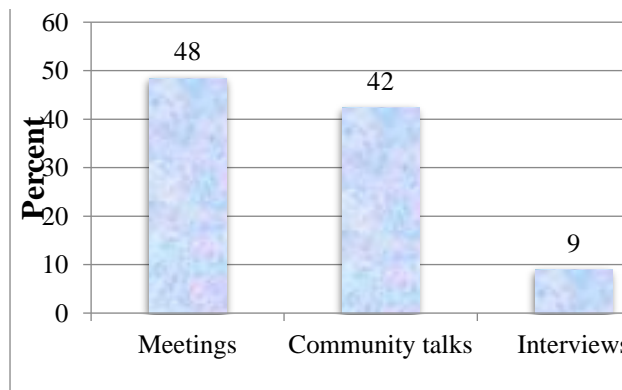
29% felt that there were improved services while 5% never saw any changes

Figure 16: what are the challenges in getting RBF project funds?



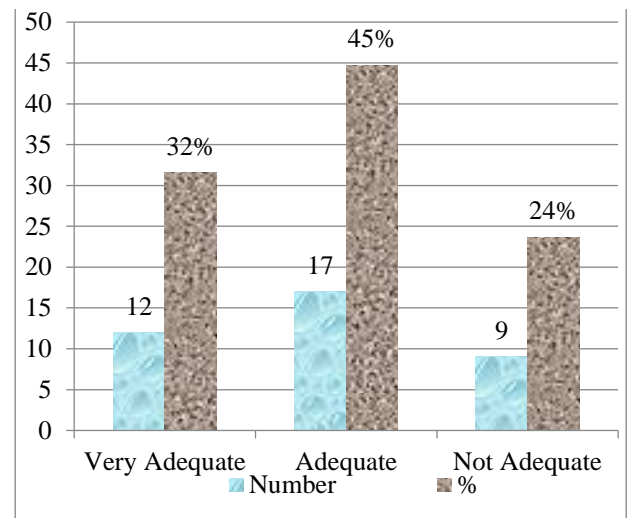
54% felt RBF funds take too long to be received while 5% were concerned that DHO usually rejected their budgets when presented.

Figure 17: how was the RBF project information disseminated?



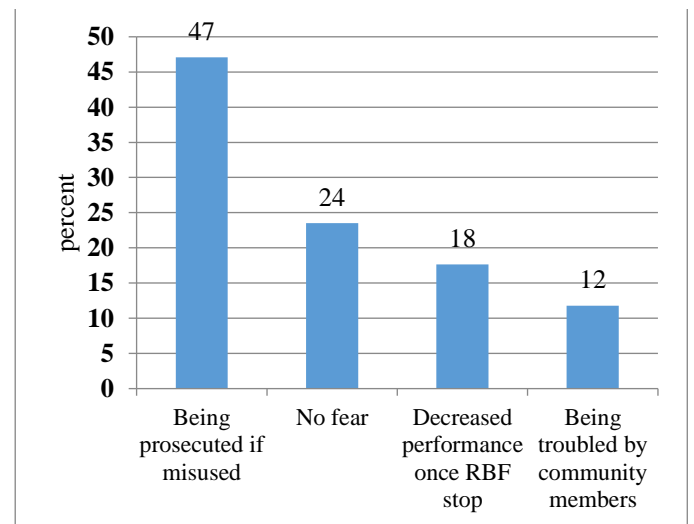
48% said through meetings and 9% through interviews.

Figure 18: do you get DHO support towards implementation of RBF?



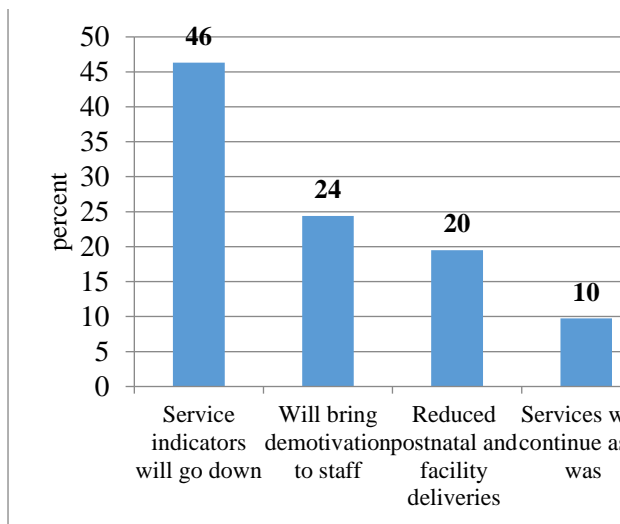
32% received support from DHO that was adequate while 24% felt it was not adequate.

Figure 19: what fears do you have towards implementing RBF?



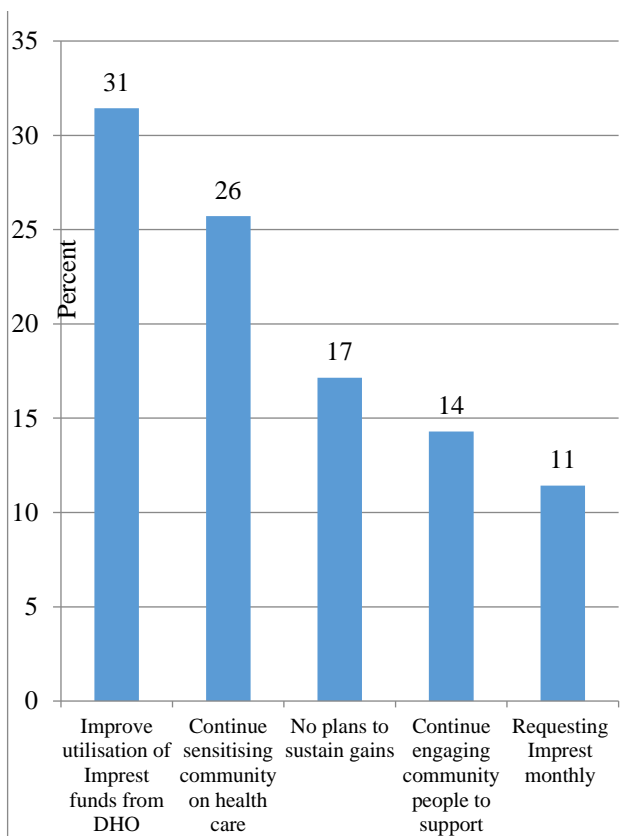
47% fear the prosecution if funds are misused for some reason. While 12% fear being troubled by the community members.

Figure 20: what do you think will happen if the RBF project ends ?



46% said service delivery indicators will go down and 10% said services will continue as it was.

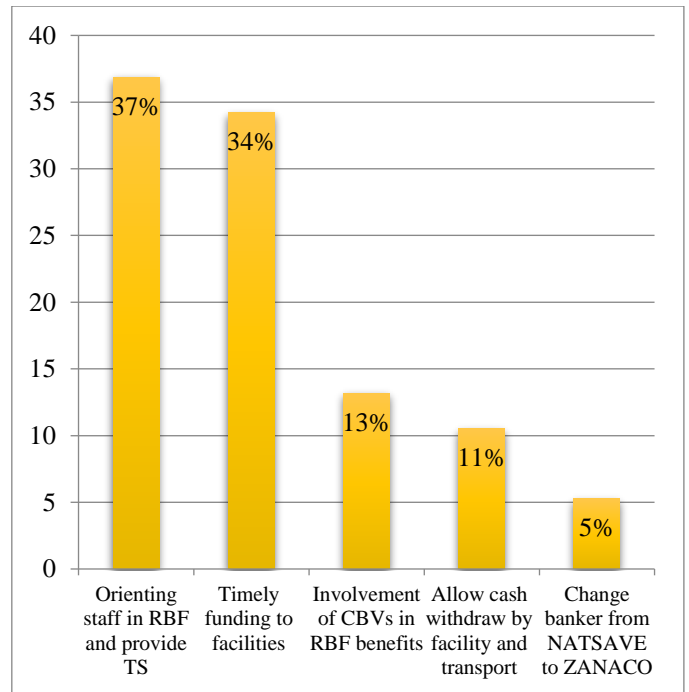
Figure 21: what sustainability measures do you propose for facilities if the RBF project ends ?



31% would continue utilizing imprest funds from government through DHO, 26% would

continue to sensitizing the community on the benefits of health care

Figure 22: what other suggestions do you on the RBF project ?



Note: 37% want to have staff oriented in RBF and to DHO should provide technical support services while 5% want to change the bank from NATSAVE to ZANACO.

### Focused group discussion

#### Personal information:

The following participated in the focused group discussion;

1. Designation: District Health Director.
2. District Nursing Officer.
3. District Nutrition Technologist.
4. Mother Child Health Coordinator.
5. Public Health Officer.
6. Health Promotion Officer.
7. Health Centre In-charge.
8. Health Centre Committee Chairperson.
9. Health Centre Committee Treasurer.
10. Health Centre Committee member



Figure 23: Gender:

Male: 04

Female: 06

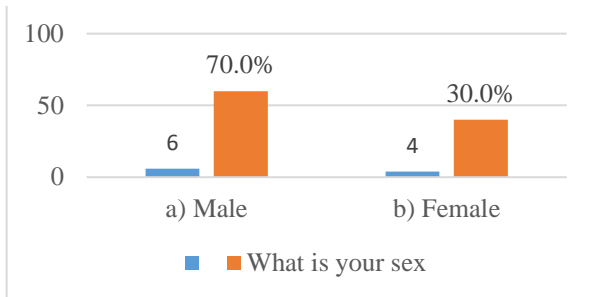


Diagram shows the difference in gender

Figure 24: Age

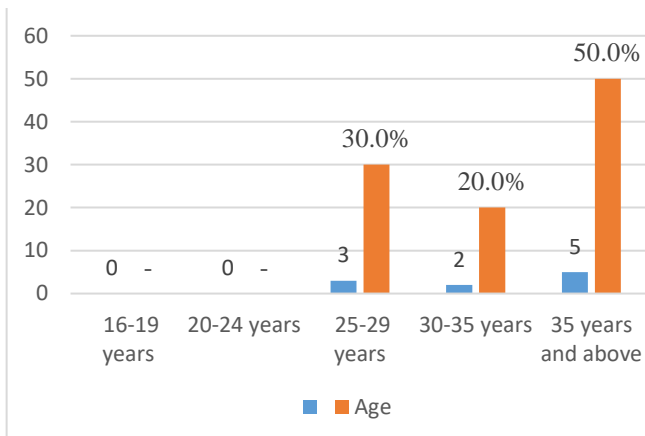
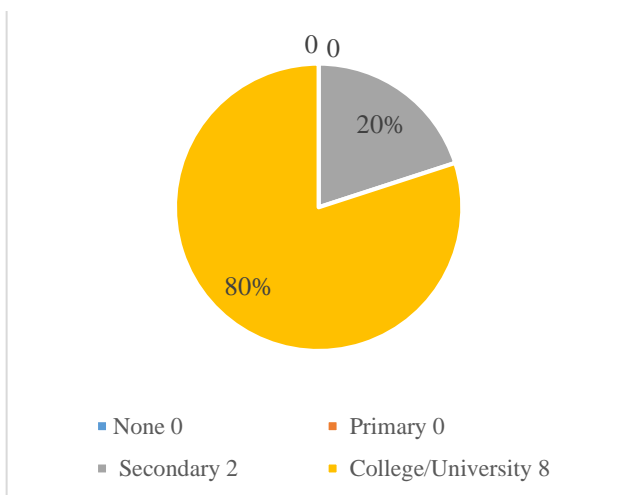


Diagram shows only 20% of respondents who participated in the FGD were aged 30-35 years, while 50% were above 35 years

Figure 25: Educational standard.



The community members have only secondary education while the skilled staff have diplomas and degrees at 80%. When asked about what projects do you expect to be done under the RBF funds project? The general view was that the members of the FDG expect to improve infrastructure such as painting of their facilities and building toilets for the staff and patients.

Another general view was that they expect to receive more bonuses if they work hard and improve the indicators. When asked about what whether there were any fears attached to receiving RBF funds? If yes, what are they? The fears varied from worries that once the RBF project expires all the good things like incentives will stop and all the indicators might drop as these depend on the items being bought by RBF money. This shows that sustainable interventions should be instituted before the project ends. When asked about whether there were any advantages attached to receiving RBF funds? If yes, list them? The responses included that it helps us because we have more numbers of early booking, no more home delivery and help us to maintain clinic and something damaged. E.g. chairs, tables. RBF has helped the facility in the elimination of home deliveries and encouraged early ANC due to the incentives being given to mothers, yes, improve quality of life in women and infants. Improvement of child health and maternal health. In addition, improvement of data quality assessment becomes easy. There is improvement of child health and maternal health and reduces on home deliveries. Improvement of child health services and improvement of data acquisition, utilisation therefore data quality assessment becomes easy. The facility is not lacking disinfectants, the facility is always clean, and the facility structure has been painted. Purchased some equipment, and attracted many pregnant women to deliver from the facility due to the incentives. They get from the RBF funds. The indicators have improved because of the bonuses being received by the members of staff. Pregnant mothers are booking early before 14 weeks, mothers have stopped delivering at home, and we are now having enough mothers coming for post-natal care. The services have improved at the clinic in terms of early booking family planning, RBF has made some changes as we are using this

money to buy some items for the facility, the facility is not the same at least there's cleanliness.

Many mothers are delivering at the facility, most of the indicators to do with mother and child health have improved, and Members of staff have become committed towards providing health services attracting RBF funds. For GMP, ANC, FP etc., Able to provide quality of health services to the people we serve since it has procured most of the equipment needed, we have seen weighing posts being built throughout our catchment area and constructed a staff toilet.

More family planning clients have been coming for series early and more health centre deliveries and Improvement of child health and maternal improvement to mothers and it has become easy for the facility to collect data.

## **CHAPTER 5: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Discussions**

In my discussion as Zwikael says, through empirical examples, improving the plan of project increases its likelihood of success (Zwikael, 2009). Project planning in most cases answers the different questions that can raise during execution period i.e. what can be done, when, where, and what resources to be used in order to achieve project deliverables. According to Kerzner (2006), producing a good plan helps in clarifying project objectives, reducing uncertainty, enhancing tasks and operations efficiency. Moreover, developing a planning model needs to consider the limitations of resources, fuzzy durations, crashing costs, and risks events (Weglarz et al. 2011). Respondents showed that only 04 (11%) were between 20-24 years and 18(47%) were between 35 years and above. Significance of this is that most of the staff are not teenagers, which should be a sign of maturity; the normal trend is that clients in Nchelenge prefer to be attended to by elderly health workers. This is supposed to be a good thing for indicators as more clients will be willing to come for service at the facilities.

The data shows that 25 respondents have college/university level education which is 25 (66%). and 12 (32%) have only secondary level education. These are mainly classified daily employees and Community Health Assistants (CHA). It is evident that a good number of the services offered is by skilled staff that is ideal for RBF and improve indicators in the district.

The question as to "What is your marital status"; the table shows no one is divorced or widowed. A case, which could be untrue, as people feel uncomfortable to talk about their marital status if they are neither single nor married. This is traditional culture issue as it shows one to be either unlucky, not trustworthy for marriage, promiscuous, playful or not a good person. This is just like asking people whether they are pregnant or not? The answer one can get would be questionable. However, the table shows that Separated are (5%) respectively. While (50%) are married. A good number are still single at (42%). On what the respondents understand by RBF program? The responses where not vary varied. 92% felt that the project received funds to improve service at their facilities. 3% felt that the funds were for the members of staff, showing ignorance regarding the project and identified the need to sensitise all beneficiaries and the stakeholders.

Note: a total number of 31 (82%) are aware of how much the clinic RBF gets when the money is received? While 7 (18%) are not aware showing that meetings should be held with staff and the community HCC members to disseminate the RBF project information. 29 (76%) of the respondents are aware of at least someone who is trained in RBF. This showed that a good number of staff who are trained can easily be identified showing that they are working. If they were not working, the respondents would not have identified them. The results showed that 29(76%) of the respondents identified community volunteer who are trained in community RBF. This is another indicator that the respondents could easily identify the members who are trained in the community. It shows that they are also working and should be able to help improve the indicators. The other result is that 9 (24%) did not know any community volunteer who are

trained in community RBF. This is a worrying sign in that they respondents have not observed those activities carried out by the community volunteers and they cannot be able to appreciate the project. No one knew about RBF through television and radio, however 57(73%) knew about RBF through personnel at the facility. This table shows that no one had to know about RBF from any media like television and radio. The issue on media could show evidence of poverty as people might not have television or radios to get news constantly.

Next assumption is that RBF program might not have been aired on media. If this was not the case, then IEC and health promotion is a key component that is missing in implementing the RBF project. While 27 (73%) learnt about RBF from personnel at the facility. This shows that only beneficially staff where informed about RBF, this could be because of the bonus component and the funds coming to the facility for them to put as investments. Answers varied with commonest being; Weighing posts construction, Construction of staff toilets, Increase in family planning and deliveries at the facility because of RBF incentives of Chitenge and baby hampers, Indicators have improved, Procurement of Medical equipment, painting of our facility, helped to buy fuel and reagents, Facility is looking very clean and the community are motivated. The general view was that the members of the FDG expect to improve infrastructure such as painting of their facilities and building toilets for the staff and patients.

Another general view was that they expect to receive more bonuses if they work hard and improve the indicators. The fears varied from worries that once the RBF project expires all the good things like incentives will stop and all the indicators might drop as these depend on the items being bought by RBF money. This shows that sustainable interventions should be instituted before the project ends.

The involve team members in plan activities through their implementation plans and budgets created during their meetings. This is done at the beginning of each quarter

According to Lewis (2001), one-sided planning is a common mistake that can affect the success of a project. Involvement of team members in planning activities provides more accurate estimates of the needed period for a project which is then approved by the District Health Office team (DHO).

## 5.2 Conclusion

The study showed that the accuracy of results achieved on the number of deliveries attended by skilled health workers. Have improved due to the funds. However, the accuracy of the results could not be established during the study. This is because of inadequate staff as midwives are not available 25 hours to offer skilled labour to the mothers. On identifying the trends in mothers, accessing first Ante Natal Care visits in the first trimester. It study observed that this specific objective was met by the RBF project through funds received by the facilities and the community. Enhanced by the incentives bought to for them. The third objective of the study was achieved because the clients got incentives like baby hampers if they brought their children for Post-Natal Care (visits) within 6 days.

The clean facilities and painted buildings have given a new life to the facilities encouraging mothers to bring their children early. With this study, my objective was not to offer evidence on what kind of RBF features work. (an entire book would not be enough), but rather to (1) identify what variables have been analysed in the literature to better understand the impact of incentives on worker's performance, and to determine how this can be done in future studies, especially in African health sectors. This study showed that the project did not achieve the objective and it did not show any relation with the RBF project funds. As the incentives did not cater for women during family planning clinics. This could not be considered able to incentivize them for make them to increase the number of new contraceptive users at the end of the month. By examining RBF from the perspective of two important theoretical views of motivation (the health staff and the community), what has been shown is that it is not at all clear that RBF can

always work, or even how often it may be expected to be helpful. In part the answer of the effects of RBF on the district is unknown (because we have not yet done enough research); in part it is unknowable (because it will always depend on local institutions and cultures).

The health staff argues strongly that when an administrator can specify what he wants and can pay for the outcomes he seeks, RBF should work. The community behavioural suggests that health workers may have multiple sources of motivation and pushing strongly on one of the sources (extrinsic monetary motives) can have ambiguous impacts on the other sources of motivation. The interplay between these forces is complicated. In part, careful design and consideration of the local circumstances are necessary to avoid the most obvious mistakes of an RBF program. If we cannot specify what we want health workers to do, tying performance pay to an arbitrary, narrow measure is almost certain to result in a failed program.

However, even when the program is carefully designed there remain too many unknowns for anyone to say with certainty that it will be successful. This more so because it has a lifespan.

That is why we propose that programs test the structure of motivation within themselves.

Outlining a program for testing the sources of motivation and for managing those sources to the best advantage can be helpful. It is obvious through the study that most of the various RBF effects can be unbundled or disentangled. Each of these effects can be assessed by combining experimental control and statistical control. Such a program is not without costs, even when compared with an effects study of one simple RBF program. Testing multiple theories within a program means that somewhere you are making a mistake. However, it is also much more likely that somewhere you are doing the right thing, and proper design means that everyone will be able to recognize where the right thing is being done, and we will all be able

to learn from that carefully calibrated understanding of success.

By following an agenda that seeks to understand the details of RBF its advantages and pitfalls, where it works like Argentina and where it does not like the issue of Congo DR. As shown in the literature review section we can take advantage of the current excitement for RBF while at the same time preparing the necessary groundwork for its maturing as a tool. It is not possible that a simple RBF is exactly the right tool for all health measures; in some cases, RBF may do more damage than good. However, the author believes that the early evidence combined with the poor performance of all other schemes so far clearly merits experimentation and further exploration.

### **5.3 Recommendation**

The researcher recommends that in order to achieve the accuracy of results achieved on the number of deliveries attended by skilled health workers. The RBF project should include employing skilled staff to reduce the patient staff ratio. This could be through temporal contracts especially when the limited staff are absent from the facility. For example, where there is only one skilled staff when they go for salaries or workshops, the RBF project should be able to deploy staff at the request of the facility.

The incentives to encourage mothers to access first Antenatal visits in the first trimester, is a good strategy. However, this should be sustainable without incentives. More sensitisation and behavioural change communication should be on way for the trend to continue. The third objective to analyse the number of children offered Post-Natal Care (visits) within 6 days maintained if mother's shelters where built at the facilities where mothers could wait for the less than six days' indicator to be achieved and sustained. The researcher recommends different ways to increase the number of new contraceptive users at the end of the month, other than incentives being provided for with RBF. More research is

required to see which methods could make women attend family planning more often, this is because culturally they need children to feel secure in their marriages and tends to be opposing to accepting contraceptives.

It is envisaged that RBF will help accelerate the achievement toward SDG 4. As countries face a triple challenge of universalizing coverage, pivoting toward quality, and doing these in a context of likely fiscal contraction, our government will be under even greater pressure to have health financing deliver greater results. This is best achieved through strengthening health systems to provide sustained quality health care services, and RBF Programs and Interventions offer tools for them to do so. RBF will strengthen systems through four theories of change. First, it shifts the policy dialogue away from the laundry lists of day-to-day activities or the traditional way of doing things and inputs that are, to what are the end line results that is most desire. Secondly, it sustains the attention on those results, keeping all eyes on the prize, and protecting those long-term priorities from short-term urgencies. Third, it aligns actors not usually involved in the health planning, such as the community, such that they now have a stake in health performance, and can hold health staff and HCC accountable for quick course correction when results are off-track.

Finally, it institutionalizes the measurement of results, and forces feedback loops through the system, that will give DHO, PHO and Ministry of Health headquarters system operators the information to course correct, and will launch a virtuous cycle of stronger monitoring, better information, and more appropriate responses to problems and bottlenecks as they arise. Part of the problems that systems face, in some facilities. Still, as governments embark on health reform efforts to rise to the challenges of the SDGs, RBF is already changing how we do business in Nchelenge District. The World Bank Group supports a Results First approach as the way forward. This approach is a highly effective way to move all stakeholders away from thinking about inputs and goes hand-in-hand with the theories of change.

Moreover, it prevents Backdoor RBF and promotes defining results together, compelling facility clients and the DHO to be more mutually accountable for shared goals. The Results First approach differs in that it emphasizes working backwards by focusing on desired outcomes, identifying binding constraints, and using financing as a way to unlock those constraints. This is the greatest potential of RBF; to change the way districts thinking about and finance Health in an effort to bring us closer to learning for all. The 2015 LCMS composed data on the health status of all persons in Zambia. The health status of a household member directly affects the welfare of the household. Information on health consultations made and health facilities visited was obtained from all persons in the survey who reported illness in order to come up with indicators on incidence of illnesses, medication and health consultations costs. In their report the reference period was the two-week period prior to the survey.

The following data were collected in the survey: This was whether the individual had been sick or injured in the two-week period preceding the survey, the symptoms or illnesses the individual suffered from, again whether a person consulted a health institution(s) or personnel for the illness or injury the amount of money spent on medication and/or consultation. The source of medication and the amount spent, the type of personnel or institution that attended to the person during the period of illness or injury. If a person was admitted at an institution and for how long, the mode of payment used to pay for services, and whether a person was unable to carry out normal activities due to illness or injury. Prevalence of illness or Injury; at national level, 14.2 percent of the population reported having had an illness/ injury two weeks prior to the survey. The proportion of persons in rural areas who reported an illness was higher (17.9 percent) than those in urban areas (9.1 percent).

Main illness; the LCMS report presents results that show proportion of persons reporting illness by residence and type of illness reported.

Respondents were asked to state the main illness that they were suffering from two weeks prior to the survey. It also reports that at national level, 4 out of every 10 persons cited Fever/malaria as the main cause of illness while 2 in every 10 cited cough/cold/chest infection. In rural areas, 4 out of every 10 persons cited fever/malaria as the main cause of illness compared to 3 out of every 10 persons in urban areas. Further, in both rural and urban areas, 2 out of every 10 persons cited cough/cold/chest infection as the second highest common cause of illness/ injury.

### **Acknowledgment (HEADING 5)**

I wish to acknowledge my sincere gratitude to my loving wife for being so supportive during my master's program. I am also very thankful to my all weather friend George Kamanga for all

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## REFERENCES

- [1] Bertone MP, Lagarde M, Witter S. Performance-Based Financing in the context of the complex remuneration of health workers: findings from a mixed-method study in rural Sierra Leone. *BMC Health Serv Res.* 2016; 16:286.
- [2] Bhatnagar A, George AS. Motivating health workers up to a limit: partial effects of performance-based financing on working environments in Nigeria. *Health Policy Plan.* 2016; 31(7):868–77. Advanced Access.
- [3] Deaton A. Randomization in the Tropics, and the Search for the Elusive Keys to Economic Development. NBER Working Paper No. 14690; 2009.
- [4] Gertler, P, Giovagnoli, P, P, and Martinez, S. (in preparation for publication). Rewarding Performance to Enable a Healthy Start: The Impact of Plan Nacer on Birth Outcomes of Babies Born into Poverty. The World Bank. (Accessed 23/03/2019)
- [5] Gilson L. Health Policy and Systems Research. A Methodology Reader. Geneva: Alliance for Health Policy and Systems Research & World Health Organization; 2012
- [6] <http://www.worldbank.org/en/programs/reach#11> (Accessed 23/03/2019)
- [7] <http://www.worldometers.info/world-population/zambia-population/> Accessed 19/03/2019
- [8] <https://academic.oup.com/heapol/article/32/10/1417/4210153> (Accessed 13/03/2019)
- [9] <https://dhsprogram.com/what-we-do/survey-Types/dHs.cfm> (Accessed 21/03/2019)
- [10] <https://dictionary.cambridge.org/dictionary/english/egalitarian> (Accessed 21/03/2019)
- [11] [https://en.wikipedia.org/wiki/Haut-Katanga\\_District](https://en.wikipedia.org/wiki/Haut-Katanga_District) (Accessed 22/03/2019)
- [12] <https://mywage.org/zambia/salary/minimum-wage/zambia-to-review-minimum-wage-1> (Accessed 24/03/2019)
- [13] <https://tradingeconomics.com/zambia/gni-per-capita-atlas-method-us-dollar-wb-data.html> (Accessed 21/03/2019)
- [14] <https://www.cdc.gov/std/Program/pupestd/Types%20of%20Evaluation.pdf> (Accessed 22/03/2019)
- [15] <https://www.cordaid.org/en/> (Accessed 21/03/2019)
- [16] <https://www.measureevaluation.org/resources/training/capacity-building/resources/health-management-information-systems-hmis-1> Accessed 22/03/2019
- [17] <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4802075/> (Accessed 16/03/2019)
- [18] <https://www.rbfhealth.org/mission> (Accessed 20/03/2019)
- [19] [https://www.rbfhealth.org/sites/rbf/files/Event/bonfrer%20et%20al,%202014%20SSM\\_0.pdf](https://www.rbfhealth.org/sites/rbf/files/Event/bonfrer%20et%20al,%202014%20SSM_0.pdf) (Accessed 16/03/2019)
- [20] [https://www.rbfhealth.org/sites/rbf/files/progress\\_reports/progressreport2014/index.html#pdf](https://www.rbfhealth.org/sites/rbf/files/progress_reports/progressreport2014/index.html#pdf) (Accessed 20/03/2019)
- [21] [https://www.zamstats.gov.zm/phocadownload/Living\\_Conditions/20062010%20LCMS%20Final%20Report.pdf](https://www.zamstats.gov.zm/phocadownload/Living_Conditions/20062010%20LCMS%20Final%20Report.pdf) (Accessed 19/03/2019)
- [22] <https://www.zamstats.gov.zm> (Accessed 5/08/2019)
- [23] Jessica Gergen, Joana Falcao, Yogesh Rajkotia. (2018) Stunted scale-up of a performance-based financing program on HIV and maternal–child health services in Mozambique , a policy analysis. *African Journal of AIDS Research* 17:4, pages 353-361.
- [24] Lagarde M, Wright M, Nossiter J, Mays N. Challenges of payment-for performance in health care and Other Public Services – Design, Implementation and Evaluation. London: London School of Hygiene and Tropical Medicine - Policy Innovation Research Unit; 2013.
- [25] Matthieu Antony, Maria Paola Bertone and Olivier Barthes. Exploring implementation practices in results-based financing: the case of the verification in Benin. Antony et al. *BMC Health Services Research* (2017) 17:204 DOI 10.1186/s12913-017-2148-9
- [26] Meyer J. Action research. In: N F, editor. *Studying the organisation and delivery of*

- health services: research methods. London: Routledge; 2001.
- [27] Oxman AD, Fretheim A. An overview of research on the effects of results-based financing. Report. Nr 16-2008. Oslo: Nasjonalt kunnskapssenter for helsetjenesten, 2008. Norwegian Knowledge Centre for the Health Services Oslo, June 2008
- [28] Renaud A, Semasaka JP. (2014) "Verification of Performance in Results-Based Financing (RBF)." "The Case of Community and Demand-Side RBF in Rwanda." Health, Nutrition, and Population (HNP) Discussion Paper. The International Bank for Reconstruction and Development / The World Bank. Washington, DC.
- [29] Results-Based Financing Progress Report. World Bank Group, Health Results Innovation Trust Fund.
- [30] Ridde V. "The problem of the worst-off is dealt with after all other issues": the equity and health policy implementation gap in Burkina Faso. *Soc Sci Med.* 2008; 66:1368–78.
- [31] Ssenooba F, McPake B, Palmer N. Why performance-based contracting failed in Uganda—an "open-box" evaluation of a complex health system intervention. *Soc Sci Med.* 2012; 75:377–83.
- [32] Swati Sadaphal and Annette Bongiovanni. April 13, 2015. AID-660-M-13-0000I. Promoting Access to Quality Health Services: A Midterm Assessment of a Results-Based Financing Intervention in the Democratic Republic of Congo. Midterm Assessment of a Results-Based Financing Intervention.
- [33] UN Inter-Agency Group for Child Mortality Estimation, 2015; WHO, 2016.
- [34] Vergeer P, Hashemi T, Sabignoso M, Basenya O, Mugeni C, Vushoma E, Sisimayi C: Verification of Results. Findings and Recommendations from a Cross-Case Analysis. World Bank - presentation at the Annual Results and Impact Evaluation Workshop for RBF; 2014.
- [35] Walt G, Shiffman J, Schneider H, Murray SF, Brugha R, Gilson L. "Doing" health policy analysis: methodological and conceptual reflections and challenges. *Health Policy Plan.* 2008; 23:308–17.
- [36] WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division, 2015
- [37] World Bank, Atlas method Turcotte Tremblay, Anne-Marie & Gali-Gali, Idriss Ali & De Allegri, Manuela & Ridde, Valéry, 2017. [https://](https://www.sciencedirect.com/science/article/pii/S0926641017300001) Social Science & Medicine, Elsevier, vol. 191(C), pages 226-236.
- [38] Zambia Central Statistics Office, 2014
- [39] Zambia Demographic and Health Survey 2013-14 [FR304]
- [40] Zubin Cyrus Shroff, Nhan Tran, Bruno Meessen, Maryam Bigdeli, Abdul Ghaffar. (2017) Taking Results-Based Financing from Scheme to System. *Health Systems & Reform* 3:2, pages 69-73.
- [41] 2015 Living Conditions Monitoring Survey (LCMS) Report, November 2016. Central Statistical Office.