EVALUATION OF NHIF LOAN PROGRAM CONTRIBUTIONS AMONG ACCREDITED LOANED HEALTH FACILITIES TO THE PERCEIVED IMPROVEMENT OF QUALITY HEALTH SERVICES IN MOROGORO REGION, TANZANIA
EVALUATION OF NATIONAL HEALTH INSURANCE FUND LOAN PROGRAM CONTRIBUTIONS AMONG LOANED HEALTH FACILITIES TO THE PERCEIVED IMPROVEMENT OF QUALITY HEALTH SERVICES IN MOROGORO REGION, TANZANIA

By

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A Dissertation Submitted to the School of Public Administration and Management in Partial Fulfillment of Requirement for the Award of Master of Science in Health Monitoring and Evaluation at Mzumbe University

2017
CERTIFICATION

We, the undersigned, certify that we have read and hereby recommend for acceptance by the Mzumbe University, a dissertation entitled: *Evaluation of NHIF Loan Program Contributions among Accredited Loaned Health Facilities to the Perceived Improvement of Quality Health Services in Morogoro Region, Tanzania*, in Partial Fulfillment of the Requirements for Award of the Master’s Degree of Health Monitoring and Evaluation (Msc.HME) of Mzumbe University.

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I, Agnes A. Florent, declare that this dissertation is my own original work and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

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DEDICATION

This research work is mostly dedicated to my almighty GOD for shading light on my thoughts and activities, the light that make possible for me to produce this study.

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LIST OF ACRONYMS

AAR   African Air Rescue
AIDS  Acquired Immunodeficiency Diseases
ANOV  Analysis of Variance
CCU   Coronary Care Unit
CHF   Community Health Fund
EmOC  Emergency Obstetric Care
HIV   Human Immunodeficiency Virus
MCH   Maternal and Child Health
MMR   Maternal Mortality Ratio
MNH   Muhimbili National Hospital
MoHSW Ministry of Health and Social Welfare
NHIF  National health Insurance Fund
NMCP  National Malaria Control Programme
NSSF  National Social Security Fund
RDT   Rapid Diagnostic Test
SAP   Structural Adjustment Programme
SHIB  Social Health Insurance Benefit
SPSS  Statistical Package for Social Sciences
TIKA  Tiba kwa Kadi
TNBTS Tanzania National Blood Transfusion Services
UNAIDS United Nations Joint Programme on HIV/AIDS
UNICEF United Nations Children Fund
URT   United Republic of Tanzania
WHO   World Health Organization
ABSTRACT

Generally this study evaluated the NHIF loan program contributions among accredited loaned health facilities to the perceived improvement of quality health services in Morogoro Region, Tanzania. The sample size of the study was 200 respondents. The questionnaires were distributed to 150 facility clients to obtain quantitative data and interviews were conducted with 50 officials in the surveyed facilities.

The findings revealed that the facilities that were given loans for equipment are Morogoro Referral Hospital, Mzinga Hospital and Mzumbe Health Centre. Morogoro Referral Hospital was given the loan for wheel chairs, oxygen concentrator, suction machine, forceps and a pair of scissors. Mzinga hospital was given loan for X – Ray machine where 70% was given by NHIF and the remaining 30% was provided by Mzinga Corporation. Mzumbe Health Centre was given the laboratory equipment named hematology machine, biochemistry analyzer and ultra – sound machine.

The study found that the building for Turiani hospital was meant for infusion unit but it was not yet completed. It was also found that Morogoro referral hospital did not construct the new building but the available building was rehabilitated and modified for the insured patients. Further, the findings revealed the clients were satisfied with the improved facility infrastructures; OPD services, OPD service environment and improvement in laboratory services. Moreover, it was found by the study that majority of respondents had positive perceptions towards the quality of the health delivery. This made a conclusion that NHIF loan program contributed to the facility’ survival, competitive advantage and customer satisfaction.
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CHAPTER ONE

1.1 Background Information

Healthcare organizations (health facilities) all-over the world are considered by scholars to have complex internal and external roles. They are said to have responsibilities to society, with a priority on quality patient care, yet also function as a business with inputs and outputs operating similarly to large scale factories. It is a fact that healthcare represents an enormous sector of society, economically, socially and environmentally. For example, in 2011, healthcare accounted for 17.2% of GDP in the US and is expected to grow to 19.8% by 2020 (McCanne, 2011; Kinney, 2011). Again in 2009, healthcare expenditure represented 9.8% of GDP in the UK and 10% of GDP in Sweden according to OECD (2011). Healthcare in the United States employs 4.1 million plus people and NHS employs 1.43 million people (NHS, 2011) (Hall, n.d.). The massive role healthcare has in the economy is also reflected in subsequent resource use, which is needed to keep a system, that operates 24 hours a day, 7 days a week, in constant progression.

In the developing countries health services quality is facing difficulties. It is due to the reasons that health services delivery systems in developing countries face major challenges including a triple burden of communicable diseases, emerging life style related chronic non-communicable disease and malnutrition. The coverage of health services is not only inadequate but also constrained by inadequate funding (Carrin and Waelkens, 2005). The root cause of poor service delivery and poor health systems in the developing countries is said to stem from large informal sector; donor dependency; weak income and asset taxes; and high dependence on international trade. This pushes the demand for the need for these countries to establish the systems especially the health insurance schemes in order to facilitate inclusive health services for all rich and poor; urban and rural dwellers.

For the first time in 3 decades, African countries are recording economic growth rates of around 5 to 6 percent per annum. These positive trends in economic growth and stability could have been good news for efforts to reduce poverty and improve health care services in Africa (Atim et al., 2010). However, the continent still faces a lot of challenges with respect to the health status of its people.
For instance, the region is a home to 12 percent of the world’s population and accounts for 22 percent of the total global disease burden while more than 68 percent of the people living with HIV/AIDS globally are residing in Africa, most especially in Sub-Saharan Africa (UNAIDS, 2013; UNICEF, 2014). Without taking for granted other reasons, the region’s poor health status is peddled by crises in financing and human resources for the health sector (Gottret and Schieber, 2006). With only 2 percent of the global health workforce and 1 percent of the world’s health expenditures, the continent is ill-equipped to sufficiently accommodate persistent health hitches and challenges (Govender, 2014). Among other factors, low per capita income, limited capacity for domestic revenue mobilization, and pervasive health systems bottlenecks have been held responsible for complicating African governments’ ability to respond successfully to the health challenges in their countries (WHO, 2008). As a result, Africa has seen the life expectancy of its populations stunted by communicable and parasitical diseases as well as increasing rates of the non-communicable lifestyle diseases which are tormenting the health status of its people (Atim et al., 2010).

Ipso facto, the health indicators in Africa are outrageous. For instance, Africans live on average, 14 years less than the average world citizen and 21 years less than the average European, maternal mortality and the mortality rate for children younger than five years are more than double the world average. But on a surprising note, there are only 2.3 doctors per 1000 people in the continent when compared to less than one tenth of the figure in Europe (33.3) and less than half the figure in South-East Asia (11.0) while on average the worlds figure stands at 14 physicians per 1000 patients (KPMG, 2012). Responding to this, governments in Africa with considerable external assistance have launched several interventions to strengthen their health provision sector. Among others, they are strengthening the capacity of existing health facilities by increasing the number of experts, supplying necessary pharmaceutical drugs and equipment, as well as establishing health insurance schemes to help boost their capacity to accommodate the demands of their population (Averill and Marriot, 2013). However, on a surprisingly note, large gaps remain between the available and needed resources despite some decades of these assorted interventions (Kutzinet al., 2009).
In Tanzania, the situation is not exceptional from the above generality. For decades now high burden of disease poses a grim threat to the country’s health sector (URT, 2010). Despite a significant decline in infant and under five mortality rate, overall Maternal Mortality Ratio (MMR) and prevalence of other major diseases like HIV/AIDS, Malaria and Tuberculosis have remained high while life expectancy remained below 55 years on average (URT, 2014). The sector is characterized with insufficient workforce, inadequate supply of necessary medical equipment as well as management of medical devices (Lekashingo, 2012). In an effort to improve the coverage of its health sector the government of Tanzania in collaboration with development partners has launched several interventions and health sector policy reform among others. Introduction of health insurance schemes (community health fund and national health insurance fund) is one of the commitments by the government to strengthen the sector in order to achieve universal health care provision (Kivelege, 2015). These schemes among others have the role of increasing the coverage of health services by addressing health equipment asymmetry and workforce among its affiliated health facilities. This study therefore, intends to conduct an evaluation of the NHIF medical equipment loan project utilization among accredited loaned health facilities in Morogoro municipality.

Availability of medicines and medical equipment is among the major indicators for quality service in health care facilities. Hitherto, shortages and stock outs of medical equipment have continued to pose a grim threat in Tanzania’s health services delivery (Kwesigabo et al., 2012). Health facilities are facing shortage in supply of basic medical equipment, a situation that has contributed to serious wearing down on the provision of quality health services to its people (Muhondwa et al., 2008).

1.2 Statement of the Problem

Despite decades in numerous attempts to narrow the gap between available and needed resources, devoted efforts are far from achieving the promising margin (Mwakisu, 2005). For instance, in their assessment of the situation of Emergency Obstetric Care (EmOC) in public health facilities in Tanzania Mainland, Malecela et al. (2006) testified to have acute shortage of essential EmOC equipment and supplies especially at health centers and
dispensaries. Similar to that, a study conducted in Tanga, revealed that laboratories had limited number of equipment and shortage of microscope at dispensary level is high (Ishengoma et al., 2009).

Although these observations were made from the lower category of health facilities, the situation is not exceptional to referral hospitals. A study by Mbembati et al. (2008) affirms that equipment supply problems and staff shortages together accounted for one quarter of postponements of surgical operations while some tests were made impossible due to lack of laboratory diagnostic equipment at Muhimbili National Hospital (MNH).

Responding to the above scenarios, the ministry of health through its different affiliated platforms has launched in vain several attempts to reverse the situation. For example, reacting to malaria diagnostic equipment’s asymmetry, the National Malaria Control Programme (NMCP) has deploying rapid diagnostic test (RDTs) in all public health facilities to minimize unwarranted use of high-cost Artemisinin Combination Therapy (ACT) (Ishengoma et al., 2009; Ishengoma et al., 2011). Similarly, in an effort to improve health services delivery in the country, NHIF has deliberately introduced medical equipment and facility improvement loans programs in 2007. The equipment loans program aims at extending soft loans to accredited health facilities so that they can purchase medical equipment that would help them in offering better services to clients. Whereas the facility improvement loans program aims at assisting accredited health facilities to undertake necessary modernization projects to update, remodel, partitioning, refurbishing or renovating the aging or dilapidated facility buildings (NHIF, 2016).

Similar studies concerning health insurance schemes have centered among other on quality of health services under health insurance schemes, impacts of user fees and quality of care on enrollment to community health fund, determinants of health insurance participation among informal sector workers as well as lessons that can be learn from OECD countries’ health care system (Mwakisu, 2005; Lekashingo, 2012; Mnally, 2013; Kajuna, 2014; Kivelege, 2015 and Kumburu, 2015). In reference to the above cited studies there are no doubt that no attention was given to different services offered by the NHIF.
This study therefore, conducted an evaluation of NHIF medical equipment and facility improvement loans programs utilization among accredited loaned health facilities in Morogoro Region, Tanzania.

1.3 Justification of the Study

The study on evaluation of NHIF medical equipment and facility improvement loan programs’ utilization were brought to the light areas that need special adjustment inorder to make the program successful by exposing barriers to its full implementation from users (accredited health facility) and their clients’ (patients) perspective.

Findings of this study provide insight of whether clients are satisfied with the improvement made with the support of NHIF loan programs in their respective facilities and inform the NHIF of the priority in medical equipment to be purchased as well as sections to be upgraded. Furthermore, this study will supplement existing literature and can be used as reference point for similar studies to be conducted elsewhere.

1.4 Objectives of the Study

1.4.1 Overall objective

The general objective of this study was to evaluate the NHIF loan program contributions among accredited loaned health facilities to the perceived improvement of quality health services provision in Morogoro Region, Tanzania

1.4.2 Specific objectives

i. To identify the types of equipments loaned by the accredited health facilities from NHIF

ii. To determine the number of buildings contracted or repaired as requested from NHIF loan program

iii. To quantify the level of satisfaction of clients to health service delivery after NHIF loan program implementation
iv. To examine the perceived quality health services provided among health services providers and clients after program implementation

1.4.3 Research questions

i. What are the types of equipments loaned by accredited health facilities from NHIF?

ii. Which buildings are constructed or repaired as requested at the facilities after loan program implementation?

iii. What is the level of clients/patients satisfaction with health services delivery in the accredited facilities in Morogoro after the project implementation?

iv. How is the perceived quality of health services provided after the NHIF loan program implemented?
1.4.4 Conceptual Frame work

![Conceptual Framework Diagram]

Figure 1.1: Conceptual framework (Researcher's design)

1.5 Conceptual Framework

From the (Figure 1.1) above it can be noted that the conceptual framework designed for this study consist of three parts, the independent variable “equipments loan that considered laboratory equipments, radiology beds and drugs together with buildings loans which considered all buildings that loan used to build at the facility which consist of ward, theaters, laboratory and specialized clinics” on the second part of the conceptual frame
work there is intermediate variable “clients/patients satisfaction” which were measured in terms of laboratory services, radiology services, availability of beds, availability of drugs and environment for service delivery. Therefore, the positive interaction between the independent variable and intermediate variables can lead into an dependent variable “perceived improved quality health services”.

This study was took into consideration the perception of all that involved in the actual survey when it comes to health services improvement and coverage since all segment of this studied population might have different opinion of what improved health services and coverage is all about. For example, a patient who has been attending traditional herbalist may consider formal health facilities improved, the same apply to those attending lower categories of health facilities such as dispensaries, health centers may have the feeling that referral hospitals are more improved without considering some key factors. While this is just a conceptualized framework the study were considered all the scenarios mentioned above from its different categories of information sources.
2.1 The concept of social health insurance

The concept of social health insurance (SHI) is deeply embedded in the fabric of healthcare systems which basically aim at simplifying the health delivery for the clients who whom expect good health from the facilities that are near to them. It is a financing mechanism that is used in a variety of forms in high, middle and low income countries alike. Insurance as a means of financing typically involves a defined contribution (premium) linked to a defined package of benefits for a specific period of time. The risks of needing health care expenditures are pooled across individuals who are enrolled in insurance plans or programs.

Social health insurance at the community level in developing countries is provided by governments, non-government organizations (Churchil, 2006). More often health insurance schemes pool the health risks of its members, on the one hand, and the contributions of enterprises, households and governments on the other. Most social health insurance schemes coalesce different sources of funds, with government often contributing on behalf of people who cannot afford to pay themselves (WHO, 2005).

Social health insurance is different from tax based financing which typically entitles all citizens to services thereby giving universal coverage. Social health insurance entitlement is linked to a contribution made by, or on behalf of specific individuals in the population (WHO, 2005). Community-based health financing schemes are said to be among the leading plausible options for extending health insurance coverage in low-income countries, particularly among rural and informal sectors of society (Diop et al., 1995; Ekman, 2004). Varian (1998) and Townsend (1994) assert that social health insurance can bring about welfare improvement through improved health status and maintenance of non-health consumption goods through ensuring that health expenditures are smoothed over time and that there is no significant decline in household labor supply.
2.2 Health financing systems

Healthcare has worldwide received a special attention. However, debate continues on the question of the best mix of financing mechanisms suitable and relevant to protect people’s health especially outside the formal employment sector. According to the World Health Report (WHO, 2010); World Health Assembly (WHA, 2011) the extending affordable universal coverage and access of health services for all people on the basis of equity (fairness) and solidarity among the community members. The essential purpose of universal coverage is to provide to all people with access to prevention, promotion, treatment and rehabilitation health services of sufficient quality to be effective while making sure that the use of these services does not expose the user to financial hardship or at very minimal hardships. Some countries such India and South Africa have developed policy for universal coverage in health systems (National Department of Health, 2011; High Level Expert Group, 2011).

Direct and indirect taxes financing is the most common form of health financing in many countries like Tanzania. Other forms of health financing include out-of-pocket payments, health-insurance, social health insurance and community-based insurance (Anne et al., 2012). Health financing through general taxation or through the development of social health insurance are generally recognized to be powerful methods to achieve universal coverage with adequate financial protection for all against healthcare costs. In tax-funded systems, the population contributes indirectly via taxes, whereas in social health insurance systems, households and enterprises generally pay in via contributions based on salaries or income (Carrin et al., 2005).

However, the challenge that faces tax-funded health system is that it may not be easy to develop, due to the lack of a robust tax base and a low institutional capacity to effectively collect taxes. Social health insurance has traditionally started by insuring workers who were employed in the formal sector, although now are expanding to the self-employed and non-formal sector in some countries (ILO, 2001). In some cases, health insurance schemes can be mandatory or voluntary.
Voluntary, community-based health insurance whereby contributions are generally made as flat amounts is being widely promoted as an important means to financial protection for poorer groups (Preker and Carrin, 2003).

During 1960s, health system of many African countries were funded by general tax revenue and external assistance, with no charges at the point of service (Preker and Carrin, 2003; O'Donnell et al., 2008a). Over reliance on tax revenues and donor funding amid increasing population size and economic turmoil led to introduction of user fees in public-health facilities as part of a Structural Adjustment Programmes (SAPs) in the 1980s. User fees deemed inevitable financing method which would circumvent political and organizational difficulties emanated from severe constraints on government finance in many developing countries. User fee policies were also seen as a possible expression of community financing. However, most studies alerted decision makers to the negative effects of user fees on the demand for care, especially that of the poorest households (McPake, 1993). While governments enjoyed some relief due to decreased burden of health financing, these user fees posed a major barrier to health-service access especially amongst the poor. To do away with the created barrier to health service access countries have introduced health insurance schemes (Preker and Carrin, 2003; O'Donnell et al., 2008b).

Community financing for health or community-based health insurance is referred to as a mechanism whereby households in a community (the population in a village, district or other geographical area, or a socio-economic or ethnic population group) finance or co-finance the current and/or capital costs associated with a given set of health services (Bose and Desai, 1983). At the same time they are expected to gain participation in the management of the community financing scheme and the organization of the health services. The idea of establishing community in health financing schemes emanated from the Alma Ata Declaration in 1978 (Bose and Desai, 1983), urging maximum community participation in organization of primary health care.
Community financing for health can be instituted by direct payment of user fees for health care at the point and time of use. Schemes in urban areas can be inclined to establish monthly or quarterly contributions so as to match the income patterns of urban formal sector workers. Annual contributions, collected at the time of harvest of cash crops, seem to be prevalent among schemes in rural areas (Bennett et al., 1998). However, in some schemes, payment schedules were held flexible, with monthly, quarterly or semi-annual payments (Ron, 1999). Other schemes link the time of payment of the contribution with a suitable event in the community. For instance, burial societies in Uganda use their monthly meetings for the collection of premiums, either for the first-time members or for those who renew their membership (Carrin et al., 2001).

2.3 The health sector reforms and the national health policy in Tanzania

Health Policy is a set of decisions or commitments to pursue courses of action aimed at achieving defined goals of improving health according to Nyamhanga (2015). Policies usually state or imply the values that underpin the policy position. This suggests the field of study and practice in which the priorities and values underlying health resource allocation are determined (Nyamhanga, 2015).

The vision of national health policy in Tanzania is to improve the health and well-being of all Tanzanians. The main focus of the policy is mainly on people especially those at risk and to enable the health system to be more responsive to the needs of the people (HSSP III, 2009). According to Nyamhanga (2015) the vision of the health sector policy is achieved when the health sector seeks to facilitate the provision of equitable, quality, and affordable basic services that are gender sensitive and sustainable and that are aimed at achieving improved health status.

Tanzania’s latest Health Sector Strategic Plan (HSSP III, 2009) focuses on the need for effective partnerships with public and private health facilities, development partners, and other stakeholders to contribute to the achievement of the Millennium Development goal. Some of the Tanzania national policy objectives are: to ensure the availability of drugs, reagents and medical supplies and infrastructures; to ensure that the health services are available and accessible to all people in the country urban and rural areas; and to train and
make available the competent and adequate number of health staff to manage health services with gender perspective at all levels. Capacity building of human resource at all levels in management and health services provision will be addressed (Health policy, 2003).

In Tanzania the goal of national health financing system is to provide universal coverage of social health security. The aim is to improve access to services by eradicating barriers to health services, especially poor and vulnerable people; those in rural and remote area; and to ensure better mobilization of resources, to enable health care providers to deliver a basic package of high-quality health care services (WHO, 2004). HSSP III gives the view that, implementation of cost-sharing and prepayment schemes has a great importance in raising additional revenues for the health sector and providing sustainable funding to health facilities. The government of Tanzania has been making efforts to improve health insurance schemes rather than increasing out-of-pocket expenditure by patients. It would moreover like to increase social health insurance coverage to eventually reach universal coverage (HSSP III, 2009-2015) Following the health sector reforms in Tanzania in 1990 with the initiation of alternative health financing the aim of the reform was to raise more revenue to improve quality, equity and accountability to health care services and to promote the efficiency use of the public health care facilities in Tanzania and health insurance was one of alternative for health financing initiated officially in 2001, which is among other health financing alternatives like cost sharing for health services (HSR, 2003).

2.4 Description of the medical equipment loan program

The medical equipment and facility improvement loans program is the deliberate efforts by the National Health Insurance Fund (NHIF) to improve provisioning of health service delivery in the country. The equipment loans program aims at extending soft loans to accredited health facilities so that the facilities can purchase medical equipment that would help them in offering better services to the members and community at large, whereas the facility improvement loans program aims at assisting accredited health facilities to undertake necessary modernization projects to update, remodel, partitioning, refurbishing
or renovating the aging/dilapidated hospital buildings. These loans program was launched officially in financial year 2007/08 (NHIF, 2016). The program was initiated from the theory that by having qualified human resource from NHIF and health providers together with intact policies, infrastructures and organized service provision among facilities the implementation of the program successfully to meeting target of having quality health services provision and hence quality life to community.

2.5 Health Financing in Tanzania.

After independence and before 1990, health services in Tanzania were entirely funded by the government through taxation, and provided without charge for all Tanzanians (Kolstadand Lindkvist, 2013). The Arusha Declaration of 1967 outlined principles of “Ujamaa” (Nyerere vision of social and economic policies) to develop the national economy which gives priority to social services provision (Kumburu, 2015). This has marked the start of series in health sector reforms with the intention of increasing universal access to health services among the poor and marginalized rural dwellers and consequently, followed by government injunction of private-for-profit medical practices in 1977 (Hyden, 1980).

Since then the government was fully in charge of health services provision to its people however, the wrench of free health care for all emerged after the rising of health care costs and a limping economy due to execution of Structural Adjustment Program (SAP) around 1980s (Kumburu, 2015). Therefore, in early 1990s, the government adopted health sector reforms that changed the financing system from free services to mixed financing mechanisms including cost sharing however, Maternal and Child Health (MCH) services were treated exceptional and exempted some groups from paying for services; these were pregnant women until delivery, children under five years and in addition, patients with epidemic diseases such as AIDS, Meningitis, Cholera, and Dysentery as well as patients with diabetes (URT, 2003).

Health financing system dealt with the mobilization, accumulation and allocation of resources to cover for the health needs of the people (Kivelege, 2015). Currently, the health financing system in Tanzania is vastly disjointed with many different financiers and
modes of financing (Lekashingo, 2012). Public taxation and thus budgeting is one method of health system financing in Tanzania with the government being the largest financer, through 36% of the public expenditure (URT, 2011). Out-of-pocket (User fees) health expenditure is another mode of health financing that has recaptured consideration in the recent past, this occurs when a patient is paying the cost of health care whether before or after receiving the service. Often the payment is made directly from one’s income. However, this mode is criticized for pedaling failure to access health services among people in case of insufficient cash (Mahal et al., 2010; Xu et al., 2007). The introduction of health insurance as yet another health financing mode has been to address the consequences of out of pocket payments in meeting the costs of health care (Xu et al., 2003). This health financing mechanism covers mainly the formal employees with regular incomes both in public and private sectors and it requires monthly subscription payments from their members (Mnally, 2015).

2.6 Health Insurance Schemes in Tanzania

There is growing commitment to the expansion of health insurance to achieve a universal health system, whereby all those needing care can access affordable services. The National Health Insurance Fund (NHIF), is the largest scheme in the country set up in 2001 as a mandatory scheme, offering a comprehensive benefit package for public servants however, the scheme is currently reaching out to members of the private formal sector (Kawawenarua and Borghi, 2012). Another scheme, the Social Health Insurance Benefit (SHIB) was formed in 2005 as an independent body within the National Social Security Fund (NSSF), which is one of the largest pension funds in the country. It offers health insurance to NSSF members. NSSF members contribute 10% of their gross salary to the NSSF, and this is matched by their employer, with total contributions equaling 20% of their salary.

The SHIB contribution is drawn from the overall NSSF contribution to reimburse services used by SHIB scheme members. To benefit from the SHIB scheme, individuals have to register with the scheme and complete an enrolment card, which can be provided by their employer (Kivelege, 2015).
There are also a range of private health insurance schemes. Strategies and African Air Rescue (AAR) are among the largest private insurance schemes. The formal sector is most likely to benefit from private health insurance when offered by their employer. For the informal sector, the Community Health Fund (CHF) is the largest scheme operating in rural districts. In 2009 a similar scheme, the Tiba Kwa Kadi (TIKA), began operating in certain urban councils. The CHF/TIKA was initially administered by the then Ministry of Health and Social Welfare (MOHSW). Since 2009, the NHIF has taken over the management of the CHF/TIKA, initially for a three-year period. There is also a range of small scale micro-insurance schemes (such as Chawana) operating across the country, although coverage with such schemes is very low and financial sustainability is a concern (Jamu et al., 2009).

2.7 Rationale of Health Insurance Schemes

Medicines in Tanzania and in other parts of the world have variable and often high prices; in this case they are unaffordable for large part of communities and a major burden on government budgets (URT, 2008). The high burden of paying for essential medicines falls disproportionately on poor households in developing countries, resulting in preventable mortality and morbidity. Therefore, long term sustainable financing strategies are needed to extend access to medicines and medication. Health insurance schemes have proved beyond reasonable doubt to be an effective tool in succeeding wide coverage of essential medication to the poor by offering a significant potential to reduce disease burden and poverty in developing countries (Xu et al., 2007). Through its high purchasing power, they can improve access to medicines at affordable prices and monitor rational prescribing habits by clinicians (Shitundu and Luvanda, 2000). Currently many developing countries are either trying to establish health insurance schemes or expand coverage in its existing health insurance programs to succeed the universal health coverage.

2.8 Review of Related Theory

This study draws many insights from the conflict theory. The Marxist takes health and health care problems as rooted in a capitalist system of economy, the poor get poor medical care because they get less of everything.
Access to good medical care, preventive medical action, healthy knowledge, and limitation of delay in seeking treatment are privileged to the rich people in today’s world, lower class people may well be disadvantaged. In fact, as the control of chronic health complications and infections like HIV/AIDS become more important the differences in health between the poor and rich are likely to increase because of people’s relative lack of access to high quality health care (Kornblum and Julian, 1992).

In the analysis of relationship between social class and poor health, conflict theory suggests that, the mere fact of being poor promotes poor health, thus diseases and other infections will continue to ravage and torture African countries, where majority of the world’s poor resides and other poor communities around the globe for they cannot afford proper diet, hence more likely to be undernourished and therefore susceptible to diseases, they often live in the densely populated areas so they are prone to respiratory diseases because they cannot afford proper housing (Stolley, 2005). The theory further postulates that poor people seems to feel middle-aged earlier than non-poor as the result they are more likely to accept illness and diseases as natural even, hence ignoring their sign and symptoms until they become debilitating by which it may be too late to administer medications (Scott, 2006). It is argued by the Marxist that, the profit motive has driven corporation to oversell many expensive technological advances even though they have benefited only a limited number of patients and have not significantly improved the society’s health (Savage and Warde, 1993). For instance, in a Marxist analysis of coronary-care technology it is argued that since its introduction in the 1960s, the expensive Coronary Care Unit (CCU) has become so popular that today they can be found almost in every country of the world, but the intensive care provided by that medical technology has not been proven more effective than simple resting at home.

This theory, however, does not suggest that modern clinical medicine and technologies do not alleviate pain or cure diseases, the point here is the medical institution fail to bring about significant improvement in the health of the population as whole. Why then, do societies continue to spend vast amount of resource on medical care and advanced technologies which do not benefit the entire if not majority of the members.
This, according to Dorrschmidt (2000) has much to do with the pursuit of private profit in our capitalist society.

2.9 Program Description

2.9.1 Program theory

By having qualified human resource from NHIF and health providers together with policies, infrastructures and organized service provision in the facilities the implementation of the program will be on place with success together with activities that will be done by the utilization of above mention resources to meet target of having quality health services provision hence quality life to the NHIF members and community at large. There should be indicators to measure the achievement of the program target.

Equipment loan intends to provide finance on credit for the acquisition of basic investigation equipment (procured by NHIF) to Accredited Health Facilities. Beneficiaries of this program are Government, Faith Based, and Private Health Facilities.

The terms and conditions of the loans are both favourable to borrower and the Fund with the objective of making it easier for borrowers to access the funding.

2.9.2 Objective of the Program

This program aims at alleviating the acute shortage of basic investigations equipment to service providers at primary care level, so that they can provide better services to members. The long term objectives go beyond the immediate purpose by making a contribution towards the improvement of the health sector in the country; priority being to assist the underserved areas.
2.9.3 Program activities and resources

2.9.4 Program activities

The program activities based on provision of medical equipment, visits the applied facilities before the loan is given to assess the environment for the operational of the loan that is expected to be given, advocacy about the loan is also the major activity made by the program implementers to make the facilities aware, communicate to the guarantors of the loan from applied facilities which need the program to be effectively be implemented to the organization, the resources for this is Human resources which are workers from the fund itself, financial, transport for visiting, guideline for reference on the terms and condition for loan provision. When the resource will be well utilized hence the program being well implemented to achieve the targeted objective of the program of increase availability of medical equipment to the health facilities hence the health services improvement to health services to the NHIF member and community at large.

2.9.5 Program strategies

i. Enhance funding of activities related to health services improvement; and
ii. To improve health services delivery at Regional Referral Hospitals.

Program indicators

i. Number of facilities loaned
ii. Amount of approved loans
iii. Amount of disbursed loans
iv. Amount of approved loans Vs the budget loans amount

2.9.6 Program Logic Model

A logic model is a visual conceptualization of how the elements of a program are linked mutually. It lays out which inputs are necessary for the program activities (process), what outputs are expected from the activities and what short and long term outcomes will ultimately result from the implementation of the program.
A logic model is used as a tool to understand and analyze a program that is crucial for the development and implementation of a sound monitoring and evaluation plan. This logic model framework shows the linear relationship between inputs, process, outputs, outcomes, and impacts in relation to medical equipment loan.

**Figure 2.1: Logical Model**
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the proposed methodologies to be used for the intended study; it gives a description of the research design, area of the study, sampling procedures and sample size as well as data collection tools.

3.2 Study population

According to Kombo and Tromp (2006) population refers to a group of individuals, objects or items from which samples are taken for analysis. Mugenda and Mugenda (1999) define population as a set of individuals, cases or objects with some common observable characteristics.

Population is the set of all cases of interests to the researcher Shaughnessy, et al. (2003) it is the universal of units or cases from which the sample is to be selected. For the purpose of this study, study population were all clients of the loaned facilities who were mentally fit and 18 years old and above, service providers and NHIF staffs.

3.3 Research Design

Cross-sectional research design was used in this study. The design allowed data to be collected at a single point in a time (Olsen, 2004). The design was chosen on the basis of its merits in involving groups of people who differ in the variable of interest, but share other characteristics such as socio-economic status and educational background; it allows a researcher to look at numerous things at once, e.g. age, income and gender. It is often used to look at the prevalence of something in a given population, while does not involve manipulation of variables. A cross-sectional design is also suitable for describing characteristics that exist in a population and in examining the relationship among variables (Bailey, 1994).
3.3 Sampling Procedures

In selection of the respondent’s simple random sampling technique was used whereby 200 patients, those who were available at the place for services the day data collected who were 18 years old and above, mentally fit and live closest to the health facility for three years back were selected randomly regardless to their gender. The patients were visited in their waiting line and were randomly selected. Simple random is the process of randomly and independently selecting samples within the study population, it guarantees equal chance of participation among all elements of the target population (Kumar, 2005).

Relatively, purposive sampling was used to select key informants to be involved in this proposed study; 10 key informants who were expert from NHIF were included and 40 health expert from affiliated health facilities who work with the institute for three years back. The selection of items under this technique is on the above procedures however, the selection of key informants was based on their knowledge of the researched variables.

3.4 Sample Size

Sample size is determined by using the following formula as proposed in (Kothari, 2004).

\[ n = \frac{z^2 pq}{d^2} \] ................................. (1)

Where:

\( n \) = sample size in the study area when population > 10 000.
\( z \) = Standard normal deviation, set at 1.96 (2.0 approximate) corresponding to the 95% confidence interval level.
\( p \) = Proportion of the target population (50% if population is not known).
\( q \) = 1.0 – p (1-50) (1-0.5) = 0.5
\( d \) = degree of accuracy desired, (set at the 95% equivalent to 0.05)

Therefore:

\[ n = \frac{(2.0^2)(0.5)(0.5)}{(0.05)^2} = 4 (0.25)/0.0025 = 200 \]
Therefore, 200 respondents were selected from the sampling frame to participate in this study as the result of sample size calculator, where it supported more by the literature as Bailey (1994) assertion that a sample size of 30 respondents irrespective of the population size is bare minimum for a study in which statistical analysis is to be done. Additionally, Kumar (2005) argued that a sample size of between 80 and 120 respondents is suitable for rigorous statistical analysis. This has indicated that 200 respondents for this study were enough for the result justification.

3.5 Research approaches

The research approach can be either qualitative or quantitative or mixed. This study combined both qualitative and quantitative (mixed approach) research approaches. The nature of the study necessitated the combination of qualitative and quantitative approaches of data collection and analysis so as to gain deeper understanding of the phenomena under the study. The integration of qualitative and quantitative approaches allowed the researcher to understand the context and uncover the links between the dependent and independent variables of the study.

In addition, the study employed quantitative approach to avoid biases and be emotionally detached and uninvolved with the objects of the study. It is said that quantitative (positivist approach) has been a cornerstone in social science researches through which hypotheses can be tested and empirically justify the stated hypotheses.

On the other hand, the study has employed qualitative approach (constructivist or interpretivist paradigm) because the nature of the study demanded context based information in order to acquire the social realities.

3.6 Validity and reliability

Validity and reliability are vital methodological concepts for designing and implementing rigorous and high quality qualitative and quantitative research (Stenbacka, 2001). Validity is defined as the degree to which one measures what one is supposed to measure (Joppe, 2000).
The reliability of a research instrument concerns the extent to which the instrument yields the same results on prepared trials (Joppe, 2000). Triangulation was used to improve validity of the findings. It was done according to data sources (gathering the same information from various individuals) and linking information from both qualitative and quantitative approaches to explain the meaning of different phenomena.

Reliability was insured by using preparing instruments that are able to measure consistently. The instruments such as structured questionnaires and checklists were used during the study. The reliability was met by using pilot test in which the researcher applied the study tools on a sample of fifteen (15) clients in some visited facilities of the sample. To ensure the consistency and ability of the research instruments, Cronbach alpha coefficient test was used for all domains and the whole tool their reliability. The Cronbach’s Alpha coefficient obtained was 0.759 which indicates a high level of internal consistency for scale within the questionnaire.

### 3.7 Data Collection Tool

#### 3.7.1 Primary Data

This study used both primary and secondary data. Primary data are first-hand information that are directly collected by the researcher from original sources and assembled specifically for the research project at hand while secondary data refers to data that was collected by someone other than the user for other purposes, Kothari (2004). This included trends in number of NHIF affiliated facilities’ clients, budget allocated for these facilities for the past three years as well as the number of items (health equipment) bought and supplied to the facilities.

#### 3.7.1.1 Questionnaire

Primary data were collected using the structured questionnaire consisting of both open and closed-ended questions. Closed-ended questions were used because they ensured uniformity of responses, easy to code and amenable to statistical analysis. They were also simple to answer as respondents are able to provide answers quickly due to fact that the
provision of alternative replies helps to make clear the meaning of the questions. However, open-ended questions were barely included in the questionnaire for this study based on assertion that they are difficult to handle, interpret, compare and are subjected to interviewer bias (Kothari, 2004). Therefore, at this juncture attention was paid to make sure that the questionnaire is informative in the sense that it covered all necessary information needed and the logical flow of questions will be observed throughout the questionnaire development.

The choice of questionnaire method for data collection emanates from the argument that a questionnaire is presenting all the respondents with the same standardized questions hence yields uniform and consistent responses; it’s potential when respondents are scattered over a wide geographical area as well as a questionnaire is the better choice as it guarantees anonymity. In this regard it should be noted that anonymity ensures protection of the subjects’ identities, interests and their future well-being: if the study is about issues that respondents may feel reluctant to discuss with an investigator, a questionnaire may be the better choice as it ensures anonymity (Kumar, 2005).

3.7.1.2 Interview

An interview can be described as a conversation with a purpose. Interviews ask questions that are tailored to the achievement of the objectives of the research. In-depth Interviews was used in this study to collect data from health providers at selected facilities as informants because it allowed the collection of data and more information in greater depth and also permit greater flexibility and an opportunity to restructure questions. This involved the use of semi-structured, open-ended interview guides with flexible probing ideal for collection of intended information from the sampled informants.

3.7.2 Secondary data

In order to enrich this study, the research also used the possible available data collected earlier by other researchers and other documents than research, such as official statistics, administrative records/publications or other accounts kept routinely by organization. The study used documentary review to gather secondary data.
The documentary review surveyed documents such as books, journals, newspapers, magazines, and administrative records and reports.

### 3.8 Data cleaning and screening

Data entry was made upon receipt of the each response and after checking for accuracy and completeness. After completing data entry and just before commencing data analysis, data was subjected to error checking. This was made necessary to avoid existence of entries which could distort the analyses. The checking involves looking for entries/values that were well below or above the other score - outliers. The data screening involved two key steps of: checking for errors, and finding and correcting the identified errors. For each variable, out of the range scores were checked, identifying where in the data file the error occurred and correcting it.

To facilitate the processes, using SPSS, the researcher inspected the frequencies, maximum and minimum values for each variable in the data file. A number of values missing or out of the range were detected and found to be caused by typing errors. Also found was empty extra cases at the bottom and right ends of the data file. Whereas empty extra cases were deleted, error entries were: first located in the data file (data view), then checked in the questionnaires and later corrected. For missing data, where possible, respondents were consulted for feedback using their telephone numbers. Thereafter, frequencies were re-run to double-check error existence.

### 3.9 Data Processing and Analysis

Before analysis, editing and coding were done to make the data amenable to analysis. Quantitative data were analyzed using Statistical Package for Social Sciences (SPSS) version 24 whereby, descriptive analysis was performed and qualitative data were analyzed through content analysis. Descriptive analysis including computation of frequencies, percentages, means as well as standard deviations were calculated and used to summarize data into understandable and meaningful form.
3.10 Ethical consideration

The aim of observing ethical issues in research is to safeguard credibility of research and investigator, to protect human rights and privacy from being infringed by scientific experimentations. The researcher observed all the research procedures to ensure that ethical matters were adhered to. The researcher used clear, proper and common language to communicate with each category of respondents. All information remained anonymously, no any respondent was identified by names or be mentioned anywhere, thus coded abbreviations for their titles were used for data analysis and report writing after the fieldwork and this guaranteed confidentiality.
CHAPTER FOUR

ANALYSIS AND PRESENTATION OF THE RESULTS

4.1 Introduction

The main objective of the study was to evaluate the NHIF loan program contributions among accredited loaned health facilities to the perceived improvement of quality health services in Morogoro Region, Tanzania. The study was conducted under mixed approach; both quantitative and qualitative approaches were carried out by using structured and unstructured interviews; and survey questionnaire in order to obtain detailed information from the program implementers and the beneficiaries of the program.

This chapter is divided into five areas. The first area is that which presents the findings on the demographic information of the study respondents. The second area presents the findings on the identified types of equipments loaned by the accredited health facilities from NHIF. The third section presents the findings on the availability of buildings as requested from NHIF loan program. The fourth area quantifies the level of satisfaction of clients to health service delivery after NHIF loan program implementation. The fifth assesses the improvement of perceived quality health services among health services providers and clients after program implementation.

4.2 Demographic characteristics of the respondents

This section summarizes the demographic characteristics of the respondents for this study. These characteristics are such as sex, age, membership status and experience time (years) of using the facility for health services of the respondents. The importance of the demographic characteristics in this study is that, they give the whole picture of the participants who participated in this study.

4.2.1 Sex of the respondents

Our society is composed of males and females knowing each group views on the issues of macro environment forces influencing organization performance provide a comprehensive picture on the issue at hand.
The interest of the study was to know the sex of the respondents who participated in this study. The findings in the Table 4.1 show that, 111 (55.5%) of respondents were female while the remaining 89 (44.5%) of respondents were male.

**Table 4.1: Sex of respondents**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>89</td>
<td>44.5</td>
</tr>
<tr>
<td>Female</td>
<td>111</td>
<td>55.5</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data (2017)

The implication of the findings is that sexes, male and female were well represented. However, assuming all things remains constant; the number of females was higher than that of males perhaps because the women tend to be involved in family issues such as health services more than men do. The results imply that majority of the female parents are the ones that are greatly involved in the health of the family. The men on the other hand participate but very little. This stems from the fact that in African culture, women are the ones who have to deal with family affairs including health. The husbands come to be involved when sickness of the member of the family becomes very serious.

**4.2.2 Age of the respondents**

The study was interested to know the age groups of the respondents. The respondents were asked to mention their age in complete years. The findings show that 23 (11.5%) respondents were 25 years and below; 61 (30.5%) respondents were 26 – 35 years; 57(28.5%) respondents were 36 -45 years; 47 (23.5%) were 46 – 55 years; and 12 (6%) were above 55 years.
Table 4.2: Age of respondents

<table>
<thead>
<tr>
<th>Age group (years)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 and below</td>
<td>23</td>
<td>11.5</td>
</tr>
<tr>
<td>26 – 35</td>
<td>61</td>
<td>30.5</td>
</tr>
<tr>
<td>36 – 45</td>
<td>57</td>
<td>28.5</td>
</tr>
<tr>
<td>46 – 55</td>
<td>47</td>
<td>23.5</td>
</tr>
<tr>
<td>Above 55</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>200</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field data (2017)

The results imply that almost all age categories were well represented. However, majority of respondents were the age between 26 – 55 years of age. This suggests that 26 – 55 years of age is the age at which the individual is very active to deal with socio-economic activities. It is the age at which the individuals have to take care of their own health and the health of their families. In most cases, the individuals below 25 and above 55 years are dependent on health issues, having other individuals who take care about them on the issues concerning health.

4.2.3 Membership status

The study was interested to know the membership status to NHIF of the respondents. The respondents were asked to state if they were members or non members. The findings revealed that majority, 123 (82%) of respondents were members of NHIF while a few 27 (18%) respondents were not members of NHIF.

Table 4.3: Membership status to NHIF of respondents

<table>
<thead>
<tr>
<th>Status</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member</td>
<td>123</td>
<td>82</td>
</tr>
<tr>
<td>Non member</td>
<td>27</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field data (2017)
The findings revealed that majority of the respondents who participated in this study were the members of NHIF that they were able to give the relevant information regarding their satisfaction status concerning health service delivery.

4.2.4 Experience in using facility for health services

The interest of the study was to know the experience of respondents in using the health facility for health services. The results show that 17 (11.3%) respondents had less than one year using the facility for health service; 31 (20.7%) respondents had one year using facility for health services; 34 (22.7%) had two years using facility for health services; and 68 (45.3%) respondents had more than two years using facility for health services.

Table 4.4: Experience of respondents in using facility for health services

<table>
<thead>
<tr>
<th>Years of using facility</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>17</td>
<td>11.3</td>
</tr>
<tr>
<td>1 year</td>
<td>31</td>
<td>20.7</td>
</tr>
<tr>
<td>2 years</td>
<td>34</td>
<td>22.7</td>
</tr>
<tr>
<td>More than 2 years</td>
<td>68</td>
<td>45.3</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data (2017)

The implication of the results is that majority of the respondents had enough time of experience in using facility for health services. This suggests their ability of giving the right information concerning their satisfaction towards the health service delivery.

4.3 Equipments loaned health facilities from NHIF

The interest of the study was to identify the loaned health facilities from NHIF. The study used interviews with the Key Informants to obtain the relevant information that could thoroughly answer the first research question that asked “Which types of equipments are loaned by accredited health facilities from NHIF?”
During the interviews with the NHIF officials, it was found that medical equipment and facility improvement loans program was deliberate efforts by National Health Insurance Fund to improve provisioning health service delivery in the country. It was revealed that the equipment loans program aimed at extending soft loans to the accredited health facilities so that the facilities can purchase medical equipment that would help the health facilities to deliver better services to the Morogoro community.

During the interview with one of the NHIF officials had this to say:

*It was reported that up to June 2015 the Fund had approved the Medical Equipment Loans to 229 facilities and Facility Improvement Loans to 69 facilities. Out of the approved amount for medical equipment loans, 112 facilities had already utilized the approved amount and collected medical equipment. Out of the approved amount for facility improvement, the Fund had disbursed payments to 18 facilities.*

**4.3.1 Equipments loaned by Morogoro Referral Hospital**

The study was interested to know specifically the equipments that were loaned to the Morogoro Referral Hospital. The interview was conducted with the HoD of the hospital who had worked with in the NHIF department in the hospital for almost 10 years, since 2008. The findings show that Morogoro Referral Hospital was advantaged with the program as it was given the loans of both, the building improvement and the medical equipments. The detailed information on the loaned building and medical equipments is explained hereunder.
Table 4.5: Clients’ satisfaction towards service infrastructure

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel chairs</td>
<td>8</td>
</tr>
<tr>
<td>Oxygen concentrator machine</td>
<td>1</td>
</tr>
<tr>
<td>Suction machine</td>
<td>1</td>
</tr>
<tr>
<td>Forceps</td>
<td>20</td>
</tr>
<tr>
<td>Pair of scissors</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Field data (2017)

The study was interested to know the other loans for the Referral Hospital. In the interview with the HoD it was revealed that apart from the building, Morogoro Referral Hospital was loaned medical equipments. It was revealed that the equipments given were to be used for services not only for NHIF building alone but for other sections of the hospital as well. The HoD had this to say:

We had a loan already, though the equipment was not for this building alone it was for hospital and they work under other hospital section my daughter, we were given a equipment like wheel chairs, oxygen concentrator, suction machine, forceps and a pair of scissors and they helped us a lot to provide service we desire though are not enough for sure for us to meet our target of pure quality service delivery (Head of Department, Morogoro Referral Hospital).

The interviewee was asked if they still pay the loan or they had done with it. It was revealed that they were still paying the loan through reimbursement of every month, whereby every month some amount of money was going to NHIF. The interviewee had this to say:

We are still paying it, through reimbursement on monthly basis. We are paying the two types of loans, the loans for equipments and loan for building. Slowly, we are going to pay it all (Head of Department, Morogoro Referral Hospital).
The nursing attendant was asked about the sufficiency of the equipments, the interviewee had this to say:

…Not for sure though there are some and they help us in one way or another. When I heard that this building is for us, I thought we could find it fully equipped. But everything here is a challenge. What I can say, this building is small and it is not the solution. We still have a lot to do to ensure there is quality service delivery to our customers.

4.3.2 Equipments loaned to Mzinga Hospital

The study was interested to know the equipments loaned specifically to Mzinga Hospital. The interview was conducted between the researcher and the Medical Officer In charge; the radiologist; and health secretary of Mzinga Hospital.

It was revealed that the loan given to Mzinga Hospital by NHIF to buy an X-ray machine. It was discovered that Mzinga had a need for radiology a very long time. The loan was given in 2014 and the same year, in April 2014 the machine was bought. The Medical Officer In charge (MOI) disclosed to the researcher that the loan from NHIF was only 70% and the remaining 30% was given by Mzinga Corporation.

It was in 2014 when we had a loan from NHIF to purchase an X – Ray machine that was really a problem in our hospital. NHIF gave us 70% of the total cost and Mzinga Corporation gave the remaining amount. The machine was modern and operating very well. The number of patients increased with the increase of revenues. Unfortunately, the machine did not last longer. We used it for only two years then it failed (Medical Officer in Charge, Mzinga Hospital).

During the interview with the radiologist, it was revealed that the X – Ray machine was bought in order to reduce the number of patients who did not have the X – Ray services. It was revealed that the machine was serving more than 60% percent of the patients. However, it was revealed that the machine stopped working after sometime. The efforts were made to amend it but no success was made.
For Mzinga hospital we requested for x-ray machine for a long time. When we had an opportunity we were given loan to buy a machine by NHIF. It functioned for sometime but later on it stopped working. It got some problems. We have tried our best to amend it but in vain. So here we do not have X-Ray machine (Radiologist, Mzinga Hospital).

During the interview with the health secretary of Mzinga hospital, it was disclosed that the loan was given to Mzinga hospital by NHIF to buy the X – Ray machine. Because of the problem that had befallen upon the machine, the patients had facing the problems because they did not get the service they were about to get. It was further, revealed that because of the failures in the X – Ray machine, the revenue collections had declined though the hospital was still repaying the loan to NHIF.

4.3.3 Equipments loaned by Mzumbe Health Centre

The study was interested to know the medical equipments that were loaned by the Mzumbe Health Centre. The interview was conducted with the Lab technician. During the interview it was revealed by the Lab Technician that NHIF did not manage to give the Health Centre the loan for building but instead the loan given was for the medical equipments.

It was revealed that the equipments given were Biochemistry Analyzer, Hematology machine and Ultra – Sound machine as shown on the table below:

**Table 4.6: Clients’ satisfaction towards service infrastructure**

<table>
<thead>
<tr>
<th>Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemistry Analyzer</td>
<td>1</td>
</tr>
<tr>
<td>Hematology machine</td>
<td>1</td>
</tr>
<tr>
<td>Ultra – Sound machine</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Field data (2017)
The Lab Technician said:

*We applied for loan to have a building for the increasing number of patient. However, we were not given that loan for building; instead we were given some equipment of hematology machine, ultra-sound machine, and biochemistry analyzer which are basically modern and up – to – date (Lab Technician, Mzumbe Health Centre).*

It was further revealed that the machines had brought revolution in the health centre because they were modern. The equipments were reported to reduce the waiting time of the patients because things go very quickly. The Lab Technician had this to say:

*Today you can see the way the queue of the patients in the waiting line is going very fast. This is because the equipment used are modern and very capable to do what they are expected to do (Lab Technician, Mzumber Health Centre).*

It was moreover disclosed to the researcher that the modern equipments had made Mzumbe Health Centre to give the quality service which had satisfied clients. It was said that this was reflected in the way the number of the patients had increased drastically.

### 4.4 The availability of buildings as requested from NHIF loan program

This section is meant to address the availability of buildings as requested by the facilities from NHIF loan program. The section answers the second research question that asked: *Are the buildings available at the facilities after loan program implantation?* To obtain the relevant information the researcher had interviews with the managerial officers in the facilities of Morogoro Referral Hospital; Mzumbe Health Centre, Mzinga Hospital and Turian hospital

(a) **Building loan to Morogoro Referral Hospital**

The interest of the study was to have detailed information on the building loan that was given by NHIF to Morogoro Referral hospital. The interview was conducted with the Head of Department (HoD) in Morogoro Referral Hospital. The HoD arguably stated that
Morogoro Referral hospital was given a loan that was used to rehabilitate the old building to be set apart specifically for insured patients especially the NHIF members.

**Figure 4.1: NHIF building at Morogoro Referral Hospital**

*Source: Field data (2017)*
It was revealed that the building was rehabilitated in order to reduce the problems that faced the hospital and the members of NHIF who expected the best service from the hospital. The HoD said that before the loan was given, the OPD did not have enough space for the insured patients. The room that was used was very small to accommodate all the insured patients.

The HoD said:

*There was a very small room for insurance patients and we used to stay there and provide services for all insured patients, it was not easy at the time till the NHIF give us the loan for this building maintenance and then we shift here.*

When the interviewee was asked if NHIF built the new building for the insured patients, the findings show that the building was not built new but rehabilitation was done to the old building and the management changed the use for it. In the interview with the HoD it was revealed when the HoD said:

*NO. They did not build the new building. We were just given some amount of money for maintenance. Before, this was for inpatients services and there was a hospital admission ward with big rooms, beds inside and all nursing staff offices. Later after NHIF loan we decide with management to change the building purpose to be for insured patients. Thanks to the NHIF we make it up.*

When the HoD was asked if the building was used for the NHIF members only, it was revealed that the building was not only for NHIF members but other insured patients were served in that building. It was said:

*Even if the building was renovated by NHIF we do not serve NHIF members only we also serve other insurance patients like AAR, NSSF, TANESCO and SUA. About seven insurance members are served here though we declare that NHIF members are almost 80% of all patients we serve per day.*
The nursing attendant added:

_We receive all types of patients, the criteria is to have an insurance card only and we save members from more than 5 different insurance at the hospital so you can see how we save the health of the community._

### 4.3.3 Building loan for Turian hospital

The study was interested to know the equipments that were loaned by NHIF to Turian Hospital. To have the relevant information, the study used interview approach with the Health Secretary of Turian Hospital. It was found by the study that the hospital was given the loan for buildings – infusion units. It was found that the building was not yet complete as it was being built when the research was being undertaken.

The secretary revealed that the loan was given by NHIF was the loan for only building, infusion unit. The loan did not go for equipments. However, it was disclosed that before the loan, Turian Hospital had an old infusion unit that was being used before. The management of the hospital had planned that when the building is complete, the equipments in the old building (old infusion unit) will be transferred to the new building. The health secretary of Turian said this:

_We received a loan from NHIF not for equipments, but for bulging the infusion unit. The equipments we have though not so modern. We have an infusion unit which is currently being used. When the new unit is complete we will transfer the equipments from there to the new unit (Health Secretary, Turian Hospital)._  

### 4.5 The Level of Satisfaction of Clients to Health Service Delivery

This section addresses the third research objective that aimed at quantifying the level of client satisfaction by health service delivery after NHIF loan program implementation. Client satisfaction was expected to reflect the perception of the clients towards the service delivery in the facilities that received the loans form NHIF.
Different aspects were evaluated to quantify the satisfaction of clients towards the service delivery in their facilities.

### 4.5.1 Using the same facility

The study was interested to know if the clients were always using the same facility. They were asked to tell if they were always using the same facilities without changing the facilities. The results show that majority, 127 (84%) of all respondents told that they were using the same facilities, without changing them; other few, 23 (16%) respondents did not always use the same facility.

**Figure 4.2: Responses on whether the clients always use the same facility**

![Pie chart showing yes and no responses]

**Source:** Field data (2017)
The implication of the findings is that the respondents were able to give the relevant information concerning their satisfaction towards the health service delivery in the same facility.

4.5.2 Perception of clients towards service infrastructure in the facility

The study was interested to know how the clients satisfied with the service infrastructure in the facility were. The respondents were asked to tell how they saw the infrastructure of service in their respective facilities. The findings show that 28 (18.7%) perceived the service infrastructure to be very good; 32 (21.3%) respondents perceived the service infrastructure to be good; 57 (38%) respondents perceived the service infrastructure in their facility to be moderate; 21 (14%) respondents perceived the service infrastructure in their facilities were bad; while 12 (8%) respondents perceived the service infrastructure in their facilities to be very bad.

Table 4.7: Clients’ satisfaction towards service infrastructure

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very good</td>
<td>28</td>
<td>18.7</td>
</tr>
<tr>
<td>Good</td>
<td>32</td>
<td>21.3</td>
</tr>
<tr>
<td>Moderate</td>
<td>57</td>
<td>38</td>
</tr>
<tr>
<td>Bad</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>Very bad</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field data (2017)

4.5.3 Satisfaction with OPD Services

The study was interested to know the clients’ satisfaction towards the OPD services in their respective facilities. The results show that 49 (32.7%) respondents were satisfied with the OPD services as very good; 54 (36%) of all respondents were satisfied that OPD services were good; 32 (21.3%) respondents were satisfied with the OPD services that they were moderate; 13 (8.7%) respondents were dissatisfied with the OPD services that they were bad; while 2 (1.3%) respondents were dissatisfied with the OPD service that they were very bad.
Table 4.8: Clients’ satisfaction towards OPD services

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very good</td>
<td>49</td>
<td>32.7</td>
</tr>
<tr>
<td>Good</td>
<td>54</td>
<td>36</td>
</tr>
<tr>
<td>Moderate</td>
<td>32</td>
<td>21.3</td>
</tr>
<tr>
<td>Bad</td>
<td>13</td>
<td>8.7</td>
</tr>
<tr>
<td>Very bad</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data (2017)

4.6 Quality of health services after the NHIF loan program implemented

This section addresses the perceived quality of health services after the NHIF loan program implemented. The section attempts to answer the fourth research question that: *has the perceived quality health services improved after the NHIF loan program implemented?* The research question demanded to assess the impact of the implemented loan programme given by NHIF to the accredited facilities.

The study assessed the perceptions of the clients and the service givers. The study used questionnaire to the clients and the interviews to the nursing officer and nursing attendant.

4.6.1 Improvement of OPD services

The study wanted to know if there was any improvement in OPD services as perceived by the services receivers. The respondents were asked to tell whether there was any improvement in OPD services. The results show that majority, 96 (64%) perceive the improvement in OPD services after the implementation of the loan program; other 54 (36%) of respondents had negative perception that there was no improvement in OPD services.
Table 4.9: Respondents perception towards the OPD service improvement

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>96</td>
<td>64</td>
</tr>
<tr>
<td>No</td>
<td>54</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data (2017)

4.6.2 Improvement of OPD service environment

The study was interested to know if the loan program by NHIF had made some improvement in the service environment of the facilities. The respondents were asked to show their perception of whether the loan given had made the facilities to create suitable environment for OPD service. The results show that majority, 98 (65.3%) of respondents had positive perception that the loan had made their facility to create good and suitable OPD service environment; while the other, 52 (34.7%) respondents had negative perception that the loan had not made their facility to create good and suitable OPD service environment.

Table 4.10: Respondents’ perception towards improvement of OPD service environment

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>98</td>
<td>65.3</td>
</tr>
<tr>
<td>No</td>
<td>52</td>
<td>34.7</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data (2017)

During the interview with the Nursing officer at Morogoro Referral Hospital, it was revealed that the working and service environment had not improved yet. The nurse reported that they did not have enough equipment such as chairs.
The nurse had this to tell:

*Equipments are not enough as usual, even chairs to seat and work comfortable as u see our work at this reception office is to seat all over the day but look at those chairs we get trouble for sure and all of us who working here finally we end with backbone problems, I swear we work under bad condition but no way we must work for our families.*

### 4.6.3 Perceive laboratory services

The study was interested to know the laboratory services after the loan program in the facilities where NHIF provided loans. The respondents were asked to show their perception towards the laboratory services in their respective facilities. The findings show that 76 (50.6%) of respondents had positive perception towards the laboratory services in their respective facilities; 74 (49.4%) of respondents had negative perception, that the laboratory services were not made good and suitable for them.

**Table 4.11: Respondents’ perception towards laboratory services in their facilities**

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>76</td>
<td>50.6</td>
</tr>
<tr>
<td>Not good</td>
<td>74</td>
<td>49.4</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data (2017)

During the interview with the Nurse Attendant at Mzumbe Health Centre it was revealed that the program had improved the laboratory services. It was said because of the improved laboratory services the number of patients had increased even causing the area to look small. The nurse attendant had this to say:

> ... At least now we are comfortable though as days go on the number of patients increases. This has made this place to be not enough for easy service delivery. Some days we receive more than 100 patients, (other nurse interfered the conversation and said 100 only, yesterday we serve
210 patients) ooh yes we reach 200 and above sometimes, example at this reception office without 5 nurses at a time the job become so difficult.

4.6.4 Perceive waiting time for laboratory diagnosis results

The interest of the study was to assess the effects of loan as implied in the waiting time for laboratory services. The respondents were asked to express their perception towards waiting time as they waited for laboratory diagnosis results. The findings show that 36 (24.0%) had the perception that the time to what for the laboratory results remained long even after the loan; 67 (44.7%) of respondents did not see any difference between the time before the program and after the program; 47 (31.3%) of respondents had perception that the time to wait for laboratory results had become shorter after the implementation of the programme.

Table 4.12: Respondents’ perception towards waiting time for laboratory diagnosis results

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long time</td>
<td>36</td>
<td>24.0</td>
</tr>
<tr>
<td>Normal</td>
<td>67</td>
<td>44.7</td>
</tr>
<tr>
<td>Short time</td>
<td>47</td>
<td>31.3</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field data (2017)
CHAPTER FIVE

RESULTS DISCUSSION

5.1 Introduction

This chapter discusses the results presented in chapter four. The chapter interprets the findings and shows the discussion by showing their implications. The discussion of the findings is done in accordance with the research objectives of the study.

*Objective 1: To identify the types of equipments loaned by the accredited health facilities from NHIF*

The study was interested to identify the equipments loaned by the accredited health facilities from NHIF in Morogoro region. The study was conducted in some accredited health facilities in Morogoro region. The equipments were identified by the study basing on the individual hospital.

The Morogoro Referral Hospital had received a number of equipment like,

- Wheel chairs
- Oxygen concentrator
- Suction machine,
- Forceps
- Pairs of scissor.

The loan to Mzinga hospital was used to buy the X – Ray machine. Unfortunately the machine did not last longer before it collapsed.

The loan given to Mzumbe health centre enabled the centre to buy the modern equipments of biochemistry analyzer, ultra-sound machine, and hematology machine. These equipments were modern and fast in giving services to the patients.

These equipments were very important for the hospital through its servants/employee to smoothly offer the service very smoothly. The results imply that loan means to show the commitment of the public and private organization to make the people receive the services
and improve their wellbeing. The loan for medical equipment is one of the strategies to make the medical workers such as medical doctors, nurses to be satisfied with the working environment and in this way they can work with commitment when preserving people’s health and life in its general way. The availability of equipments in the hospital and health centre is critical in making the patients comfortable and keeps trust in the service givers. When the patients are aware that the equipments available are not sufficient to give service that they expect the patients will always tend to shift to other hospital where they expect and trust most to have the required services.

**Objective 2: To determine the availability of buildings as requested from NHIF loan program**

The study found that some other facilities were given loan in order to make them to have buildings of medical services. Morogoro referral hospital was given a loan by NHIF to rehabilitate the building and change the use of that building. The loan enabled the hospital to have the specific building for the insured patients. The insured patients, of any insurance could get service in that building. This means that the insured patients were separated from other patients for the services in order to simplify the task. The renovation of the building made the smooth service delivery. This can make the doctors to be specific and have reduced work load because he/she has to deal with the some specific patients. The reduced work for medical attendants and other health officials is very important to make the service effective and efficient. This motivates the service giver because he/she thinks that he/she as a specific group of patients to be attended. Further, the building provided the medical service giver to have their own offices which made them to work freely and comfortably. The building was important for both patients and service givers. It facilitated confidentiality between the medical service giver and the patient. This is very crucial as far as the ethics in medical arena are concerned.

Moreover, the study found that NHIF had given the loan for building to Turian Hospital. It was found that the building was still in progress, not yet complete. The building was for infusion unit that meant to replace the old one. Though the loan was given for the building, no equipments were loaned; the management of the hospital was planning to transfer the equipments from the old building to the new building when it is complete. The
implication of the new building for infusion unit was the commitment of the Turian Hospital to offer good and quality services to its clients. The quality service in medical affairs is very important to the healthy nation. Without quality health services the individuals cannot be able to do anything for their own development and the development of the nation.

**Objective 3: To quantify the level of satisfaction of clients to health service delivery after NHIF loan program implementation**

The study examined the level of satisfaction of clients following the health delivery after the NHIF loan program. The respondents in their majority were using the same facility within three years to make sure that the information given is the right one from the relevant person. The findings reflect the improved of the service infrastructure in the survey facilities. The respondents in majority were satisfied with the improvement in the service infrastructure. Satisfaction of the clients is the reflection of good service the patients had witnessed. The service infrastructure is very important to make the clients trust the given service. It is the reflection and manifestation of the quality service offered in the facility. This implies that the given loan did what was required to do rightly. This suggests accountability of the management of the surveyed facilities. Accountability is very important to set the people free and offer the right service in order to preserve life and improve wellbeing of the clients.

The study also found that majority of clients had positive perceptions towards the OPD services. This implies the improvement of the services as resulted from the loan program. This is to say that the impact of the loan program was far reaching, because the services that were improved could affect the lives of the community. The satisfied clients could lead to spread of information to other people as result the customers to the facility could increase which in turn could make the revenue collection to increase. OPD services are the heart of the medical services in the hospital or health centre. When the OPD services are improved other services will automatically improve. It is the OPD services that catch the attention of most of clients and when they are good, the customers become satisfied and motivated.
Furthermore, it was found that majority of respondents were highly satisfied with the laboratory services. This is due to the fact that some facilities such as Mzumbe health centre had loaned modern equipments that were fast. The loaned equipments were new and modern that made the laboratory activity to be done in the valid and reliable way. The improved laboratory services reduced the waiting time of the customers. This made the facility to attract many customers because they did not spend much time to wait the diagnosis results.

So, the new modern equipments were fast and gave the reliable and valid results. This made the customers happy and satisfied with the services. Satisfaction among patients is most important thing that by itself heals. When the patients trust the facility by giving the reliable and satisfactorily services they are psychologically healed even before they take any medicine. The implication here is that in order to heal or cure a patient, the facility need to prepare the environment that make the patients satisfied that the facility can give the service that they expect. The loans for the equipments in the facilities increased clients’ satisfaction, trust and psychological motivation. This suggests that the facilities which loaned equipments are likely to have attracted and recruited a good number of new customers. This in long run suggests the increased revenue collection. All these suggest that the facilities become of the modern standards which offer reliable services.

**Objective 4: To assess the improvement of perceived quality health services among health services providers and clients after program implementation**

The study assessed the quality of health services after the loan program as perceived by the clients and service providers. The study used different elements/aspects to assess this perspective.

The majority (64%) of all the clients had the positive perception towards the improvement in OPD services. The clients were happy that the program brought the improvement in the OPD services. This is due to the fact that the loans to the facilities made things new and brought the facilities into new and modern operations. These results imply a lot to the facilities and other stakeholders. In OPD service improvement means there were key areas in which improvements had taken place. These areas include
**Patient waiting time:** The loans program had made the facilities to reduce waiting time for patients. This means that the facilities were capable of giving the quality services within a short without keeping the patients in long queues. It is very important for the health facility to have very minimal patient waiting time. Prolonged waiting time disappoints the patient and the patients become psychologically disturbed and stressful.

The amount of time a patient waits to be attended is one of the factors that affect the real utilization of healthcare services. Patients normally perceive long waiting as a barrier to actually obtaining services and keeping patients waiting unnecessarily. In this regard, long waiting can cause stress for both patients and their doctor.

**Improved managed clinic lists and booking appointments:** because of the modern equipments the systems of the facilities were able to capture changes properly to release unwanted appointments, leaving gaps and the perception that the patients were not attending.

**Case note management:** the improved OPD services made the facilities to be able to manage case notes without delays, duplicated information gathering and created satisfaction for patients and the staff.

Improving these variables made the clients and the staff to become satisfied with the service. This could increase the number of clients to the facilities and increase trust to the facilities. In the past years the patients did not trust the public facilities and most of them trusted the private facilities because they gave the satisfying OPD services. In this situation the public facilities failed to compete with the private facilities. The loans to these facilities could bring them to the field of completion with the private facilities at domestic and international markets.

Further, the findings show that OPD service environment had improved. This is very great for the facility that was affected by the loan program. The OPD is the first point of contact of the facility with the patients and it serves as the shop window to any healthcare service provided to the community. The OPD service environment is believed to indicate the quality of services of the facility and it is reflected by patients’ satisfaction with the
environment in which the service is offered. So, it very important to improve the OPD
service environment in order to reflect the positive image of the facility. The positive
image of an organization builds the branding of that organization and helps much in
making the organization to meet the competitive edge.

Moreover, the findings show that majority of respondents had witnessed the improved
quality of laboratory diagnosis services. Provision of the efficient and effective laboratory
services is an essential aspect of functioning healthcare system. The new equipments and
buildings made the clients to have positive perceptions over the laboratory services in the
surveyed facilities. The medical laboratory in the loaned facilities provided the confirmed
clinical diagnoses, facilitated improved management of diseases, and generated essential
information of the patients with confidentiality and reliability. The laboratory services are
very important in the facility because they make the facility to treat the patients
accordingly.
CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter presents the summary of the findings presented in chapter four and discussed in chapter six. It also gives the conclusion in line with the findings at the end it gives the recommendations.

6.2 Summary of the findings

Generally this study evaluated the NHIF loan program contributions among accredited loaned health facilities to the perceived improvement of quality health services in Morogoro Region, Tanzania. To evaluate this, the study identified the types of the loaned equipments; determined the availability of buildings as requested by the accredited facilities; quantified the levels of satisfaction of clients to the service deliver in the facilities; and assessed the improvement of perceived quality health services among health services providers and clients after program implementation.

It was found by the study that not all facilities surveyed were given the loans for equipments, some were given and some were not given. The facilities that were given loans for equipments are Morogoro Referral Hospital, Mzinga Hospital and Mzumbe Health Centre. Morogoro Referral Hospital was given the equipments of wheel chairs, oxygen concentrator, suction machine, forceps and a pair of scissors. Mzinga hospital was given loan for X – Ray machine where 70% was given by NHIF and the remaining 30% was given by Mzinga Corporation. Mzumbe Health Centre was given the laboratory equipments of hematology machine, biochemistry analyzer and ultra – sound machine.

The available buildings in the facilities as requested by facilities were found in two facilities of Morogoro Referral Hospital and Turian. The study found that the building for Turian was meant for infusion unit but it was not yet competed.
The plan of the management of Turian Hospital was to transfer the equipments from the old infusion unit to the new one when completed. It was also found that Morogoro referral hospital did not construct the new building but the available building was rehabilitated and modified for the insured patients.

Further, the findings revealed majority of respondents were satisfied with the service delivery following the loan program by NHIF. The clients were satisfied with the improved facility infrastructures; OPD services, OPD service environment and improvement in laboratory services.

Moreover, it was found by the study that majority of respondents had positive perceptions towards the quality of the health delivery. They had positive perceptions towards the improved facility infrastructure, improved OPD services and improved laboratory services.

6.3 Conclusion

Basing on the findings, numerous conclusions can be given. First, it is concluded that NHIF loan program was very important for the facility’ survival, competitive advantage and customer satisfaction. The loan made the facilities to have the equipments that are critical to quality healthcare services provision some of which without the facility cannot work. The modern equipments purchased from the loan program made the facilities to get in the competition field with the private and international facilities which had these equipments for long time. The modern equipment led the facilities to deliver the dependable healthcare services that satisfied customers.

Secondly, it can be concluded that the presence of buildings in some facilities made the infrastructure of these facilities to capture the attention of the customers and built the trust of the patients. The trust of the patients was strengthened by the proper, valid, and reliable OPD and laboratory services that were given after the loan program in the affected facilities.
Thirdly, it can be concluded that the NHIF loan program facilitated the satisfaction among the clients of the affected facilities. The loaned equipments and buildings created good and appropriate environment that welcome satisfactory services.

The services in this environment made clients to be satisfied. The satisfied clients implied the increased number of customers that suggested the increased revenues for the sustainable self development of the facilities.

Fourthly, it can be concluded that the NHIF loan program resurrected the positive perceptions of the clients towards the public facilities. Before the program the clients had negative perceptions towards service delivery in the public facilities. The program had made these facilities to be competitive in giving reliable and dependable healthcare services.

6.4 Recommendations

Basing on the conclusions given above, the following recommendations can be given.

(i) It was found that the loan program had made the facilities to work better. It is recommended to NHIF to extend its loan programs to private and public facilities. This will make the quality healthcare services delivery to spread throughout the country and eventually reduce morbidity and mortality. It was found that most facilities were not given both buildings and equipments loans. The facilities were either given loans for equipments or loans for buildings. However, buildings and equipments go together for better service delivery. It is therefore recommended to NHIF to provide both buildings and equipment loans in order to for the facilities to provide best services.

(ii) It was found that the loan program made the facilities to possess the modern equipments that need knowledge. The facilities should train their staff regularly on how to use these equipments utilized properly and to the full for the betterment of their clients.

(iii) It was found that NHIF enabled the credited facilities to find the easy way to have modern equipments which it could not be simple for the facilities to have them.
It is recommended that NHIF to extend their loans to the facilities even if they are not credited provided that they are offering health services to the NHIF customers. This will lead to the improvement of the quality of health services and at the end the mortality rate will be reduced.

(iv) It was found by this study that some facilities were loaned only building without medical equipments. It is recommended to NHIF that it should loan both equipments and building in order to facilitate proper health delivery to the clients.

(v) It was found that NHIF medical equipment loans program had received positive perceptions from the clients. The study recommends that NHIF should design and implement other programs of the same kind in order to give their services of quality especially in health sector. This will ultimately lead to the spread of the quality health services to different and big number of beneficiaries and result to improved livelihood.

(vi) The study found that clients of the health services who were insured were satisfied with the services they received after the loans given to their facilities. The study recommends to the other governmental and nongovernmental organizations offering health services to the public, to learn the strategies used by NHIF to implement their programs that satisfy their clients and other beneficiaries.
REFERENCE


Kajuna, D. (2014). What can Tanzania’s health care system learn from OECD countries. Dissertation submitted to the Faculty of Medicine in partial fulfilment of the requirements for the award of a Degree of Master in Health Economics, Policy and Management of the University of Oslo, Oslo: 82 pp.

Kawawenarua, A. and Borghi, J. (2012). Health insurance cover is increasing among the Tanzania population but wealthier groups are more likely to benefit. IHI spotlight report No. 1, Dar es Salaam, Ifakara Health Institute: 1-6 pp.


MSc. In Health Monitoring and Evaluation Questionnaire

By Agnes Florent

My name is Agnes Florent, student at Mzumbe University pursuing a Master Degree of Science in Health Monitoring and Evaluation. I am currently conducting a research study titled “Evaluation of NHIF Medical Equipment and Facility Improvement Loan Program Utilization among Accredited Loaned Health Facilities in Morogoro Region, Tanzania”. In order to succeed this, you have been selected one of the respondents to answer questions about the researched variables. The information that you will give herein will be used for academic purposes only and will in no way harm you. Please be assured of privacy and confidentiality. Thanks

Are you willing to continue with the interview? Yes [___] No [___]
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<tbody>
<tr>
<td>Region</td>
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<tr>
<td>District</td>
<td>Enumerator’s name</td>
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<tr>
<td>Health facility name</td>
<td>Time started</td>
</tr>
<tr>
<td>Health facility status E.g. Referral hospital</td>
<td>(24 hrs. e.g. 1420)</td>
</tr>
</tbody>
</table>

**Part A: Respondent Profile**

1. Age in complete year’s ______________
2. Residence……………………
3. Sex
   - Male [__]
   - Female [__]

**Type of NHIF loan provided by the program**

4. How do you see services at this facility?
   - Very good [__]
   - Good [__]
   - Moderate [__]
   - Bad [__]
   - Very bad [__]

5. Is there any equipment for service delivery currently introduced?
   - Yes [__]
   - No [__]
6. Which new equipment for services has been introduced?
   Laboratory equipment [___]
   Radiology (X rays, ultrasound) [___]
   New buildings [___]
   OPD tools [___]

   Mention……………………………………………………………………………………
   ……………………………………………………………………………………………
   ……………………………………………………………………………………………

7. Which laboratory equipment that are introduced?
   Diagnostics machine [___]
   Laboratory infrastructures [___]

8. What are new OPD infrastructures has been introduced at the facility?
   Doctor’s offices [___]
   Inspection tools [___]
   Patient’s beds and chairs [___]
   Drugs [___]

9. Which new building introduced in this facility?
   Ward [___]
   Theaters [___]
   Laboratory [___]
   OPD [___]
   Specialized clinics [___]
10. Does the building provided with required tools for service delivery?
Yes  [___]
No    [___]

11. How many wards does the program offer?
1-5    [___]
5-10   [___]
10-15  [___]
15-20  [___]
Above 20  [___]

12. Is there any specialized clinic built by the program?
Yes   [___]
No    [___]

Mention………………………………………………………………………………………
……………………………………………………………………………………………………
….  

13. Do the infrastructures help you in service delivery process?
Yes    [___]
No     [___]

14. Is there any difference of service delivery before infrastructure introduction and now?
Yes    [___]
No     [___]
15. Are there any challenges you faced due to introduction of this new infrastructure?

Yes        [___]

No         [___]

If yes, Mention

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

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

........................................................................................................
MSc. In Health Monitoring and Evaluation Questionnaire

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<td></td>
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</tbody>
</table>
**Satisfaction with Health Services Delivery**

1. Age in complete years ______________
2. Residence…………………………..
3. Sex
   - Male  [___]
   - Female [___]
4. Membership status to NHIF
   - Member  [___]
   - Non-member [___]
5. For how long you use this facility for health service
   - Less than 1 year        [___]
   - 1 year                  [___]
   - 2 years                 [___]
   - More than 2 years       [___]
6. Are you always using this facility for health services?
   - Yes
   - No
7. How do you see the infrastructures for services in this facility?
   - Very good    [___]
   - Good        [___]
   - Moderate    [___]
   - Bad         [___]
   - Very bad    [___]
8. How are OPD services at this facility?
   Very good [__]
   Good [__]
   Moderate [__]
   Bad [__]
   Very bad [__]

9. Is there any improvement in OPD services?
   Yes [__]
   No [__]

10. Is the OPD services environment suitable for services?
    Yes [__]
    No [__]

11. Do laboratory services good at this facility?
    Yes [__]
    No [__]

12. What about waiting time for laboratory diagnosis result?
    30 min [__]
    1 hour [__]
    2 Hour [__]
    3 Hours [__]
    More than 3 hours [__]
13. Is there special place for waiting for laboratory diagnosis result?
   Yes [__]  
   No [__]

14. Are there any challenges you face during laboratory service? Mention
   Yes [__]  
   No [__]

   If yes mention them
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………
   …………………………………………………………………………………………………

15. What about environment for inpatient services?
   Very good [__]  
   Good [__]  
   Moderate [__]  
   Bad [__]  
   Very bad [__]

16. Is the ward environment safe for inpatient services?
   Yes [__]  
   No [__]
17. Are the beds enough in wards according to patients at the facility?

Yes  [___]

No  [___]

18. Please rank your level of satisfaction against each likert statement/Indicator of satisfaction by ticking the appropriate box from 1 to 5 likert rating scale as follows

**Key:** 1=high dissatisfied, 2= Dissatisfied, 3= Moderate, 4= Satisfied & 5= high satisfied

<table>
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<tr>
<th>No.</th>
<th>Statements</th>
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<tr>
<td>1</td>
<td>Service delivery environment</td>
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<tr>
<td>2</td>
<td>Environment for OPD services</td>
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<tr>
<td>3</td>
<td>Environment for Laboratory services</td>
<td></td>
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<tr>
<td>4</td>
<td>Radiology services (ultrasound, x-rays)</td>
<td></td>
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<td>5</td>
<td>Inpatients services</td>
<td></td>
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<tr>
<td>6</td>
<td>Availability of wards</td>
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</tr>
<tr>
<td>7</td>
<td>Availability of beds</td>
<td></td>
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<td>8</td>
<td>Theatres services</td>
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<tr>
<td>9</td>
<td>Specialized clinics services</td>
<td></td>
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<tr>
<td>10</td>
<td>Availability of Drugs</td>
<td></td>
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</tbody>
</table>
Interview guide

First of all congratulation for being among workers in this facility community. Thank you for giving your time with me today. I would like to ask you some questions about your views on NHIF loan program as introduced in this facility for sometimes now. My interest is to hear from your experiences, opinions and beliefs in your own words. In case of any question or doubt that make you feel scratchy, please don’t be uncertain to tell me and we can skip over those questions.

Signature of the participant __________________________

What is your Occupation at this facility?

Which department are you working with?

Can you tell me about your experience on your professional?

Which type of loan has been received by this facility?

- For how long does the program exist?
- Have you receive equipments loans or buildings loan?
- Which new laboratory equipment has been received?
- Can you mention the equipments by its names?
- What about radiology services?
- Which building the program loan used to build?
- Can you tell me also about OPD and inpatients services, how does it affected by the program?

Is there any improvement in service delivery after the program implementation?

- How is the environment for service delivery?
- Is the program well utilized?
- How do you make people aware about new services?
- Do you think the equipment and building are effectively used to provide quality services among clients/patients?
Tell me to what extent the program help in service delivery

- Do you see any clients/patients satisfaction after the program implementation?
- How does it affect the number of clients/patients attendance?
- What do you think are the most advantage for this program existence?
- What are the challenges for this program implementation?

To end this interview anything to add or explain more about what we discussed

Thank for your time.