

**DETERMINANTS OF COMMUNITY HEALTH FUND MEMBERSHIP DROP
OUT IN LINDI DISTRICT COUNCIL OF TANZANIA**

DELFINA REUBEN



**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
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ABSTRACT

Tanzania, have been implementing Community Health Fund scheme in its government health services since 1996. Lindi District Council is one of the six councils which make Lindi Region. There have been a lot of research and studies on CHF in Tanzania such as determinants for CHF enrolment, reasons for the continuing low enrolment in the district. There is scanty information about the actual factors that determine CHF membership drop out, in the study area. However, the overall objective of the study was to identify the factors determining the CHF membership drop out in Lindi District council. Specifically, the study aimed at determining the perception of CHF members on CHF management, determinants of joining the CHF scheme, duration which CHF members stay under the insurance before they drop out and determinants of CHF membership drop out. Interview and Focus Group Discussions were used to collect data. Statistical Package for Social Science Programme (SPSS) was applied to analyze both qualitative and quantitative data. By using multiple linear Regression analysis, the study revealed the factors that determined CHF membership drop out in the study area. Those factors included socio and economic and demographic characteristics such as ability to pay the premium. Finally the study provides four strong recommendations that could be done to improve CHF membership retention in the study area and other district councils where CHF scheme is implemented.

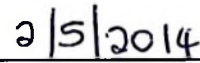
DECLARATION

I Delfina Reuben, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work done within the period of registration and that it has neither been submitted nor being concurrently submitted in any other institution.



Delfina Reuben.

(M.A Rural Development Candidate)



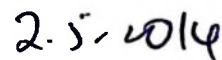
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Dr. Mbwambo, Jonathan S.

(Supervisor)



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DEDICATION

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TABLE OF CONTENTS

ABSTRACT.....	ii
DECLARATION.....	iii
COPYRIGHT.....	iv
ACKNOWLEDGEMENTS	v
DEDICATION.....	vi
TABLE OF CONTENTS.....	vii
LIST OF TABLES	x
LIST OF FIGURES	xi
LIST OF APPENDICES.....	xii
CHAPTER ONE	1
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Problem Statement.....	3
1.3 Justification of the Study	4
1.4 Objectives of the Study.....	4
1.5 Specific Objectives.....	4
1.6 Research Questions	5
1.7 Conceptual Framework.....	5
CHAPTER TWO	8
2.0 LITERATURE REVIEW.....	8
2.1 Definitions of Key Concepts.....	8
2.1.1 The concept of health insurance	8

2.1.2	The concept of community health insurance	8
2.1.3	The concept of community health fund.....	9
2.2	Healthcare Financing in Developing Countries	10
2.3	Factors for CHF Membership	11
2.4	The User Fee under Health Sector Reforms Program in Health Service Utilization	13
2.5	Cost Sharing Policies in the Context of Health Delivery	14
2.6	Background of CHF in Tanzania.....	15
2.7	CHI Challenges and Success.....	16
2.8	Review of Previous Research on CHF in Tanzania	17
2.9	Theories Determining Community Health Insurance Membership.	18
2.9.1	Socio-behavioural model.....	18
2.9.2	Demand and supply model	19
CHAPTER THREE		20
3.0	METHODOLOGY	20
3.1	Location and Description of the Study Area.....	20
3.2	Research Design.....	22
3.3	Sampling Procedures and Sample Size.....	22
3.3.1	Sampling technique and sample size.....	22
3.3.2	Sampling strategy for focus group discussion	23
3.4	Type of Data Collected	23
3.4.1	Primary data.....	23
3.4.2	Secondary data.....	24
3.5	Data Analysis	24

CHAPTER FOUR.....	26
4.0 RESULTS AND DISCUSSIONS.....	26
4.1 Demographic and Socio-Economic Characteristics	26
4.2.1 Age of the head of the household	27
4.2.2 Sex of the respondent.....	27
4.2.3 Marital status	28
4.2.4 Main occupation.....	29
4.2.5 Education.....	30
4.2.6 Income.....	31
4.2.7 Household Size	32
4.3 Perception of CHF Members towards CHF Management.....	32
4.3.1 Perceptions of CHF members on utilization of CHF contributions.....	36
4.3.2 Perception of CHF members towards CHF usefulness.....	37
4.4 Determinants for CHF Membership Prepayment at the Household Level.....	38
4.5 Duration of CHF Members Stay Under The Insurance before they Drop	
from The Scheme	41
4.6 Reasons for CHF Membership Drop Out	45
 CHAPTER FIVE.....	 51
5.0 CONCLUSION AND RECOMMENDATION	51
5.1 Conclusion	51
5.2 Recommendations	51
 REFERENCES.....	 53
APPENDICES.....	58

LIST OF TABLES

Table 1:	Variables measured by the study	7
Table 2:	Sample Selection.....	22
Table 3:	Demographic and Socio-economic characteristics of the respondents.....	26
Table 4:	Total Average Income	32
Table 6:	Total number of household members	32
Table 7:	Overall Perception on CHF Management	33
Table 7:	Perception towards CHF usefulness	37
Table 8:	Reasons for joining the CHF prepayment scheme	39
Table 9:	When CHF members joined and dropped from the scheme	42
Table 10:	Sources of CHF information in the community	42
Table 11:	Duration of CHF membership	44
Table 12:	Reasons for CHF drop out.....	47

LIST OF FIGURES

Figure 1:	Conceptual Framework	6
Figure 2:	Map of Lindi region showing the Lindi District council.	21
Figure 3:	Age of the respondents.....	27
Figure 4:	Sex of the respondent	28
Figure 5:	Marital status of the respondent.....	29
Figure 6:	Main occupation	30
Figure 7:	Education.....	31

LIST OF APPENDICES

Appendix 1:	Age, sex and education of FGD participants.....	58
Appendix 2:	Showing Interview schedule on Determinants of CHF membership drop out in Lindi District Council.....	58
Appendix 3:	Showing Interview schedule with Health facility in charges	65
Appendix 4:	Guiding questions for Focus Group Discussions on Determinants of CHF membership drop out in Lindi District council.....	68
Appendix 5:	Guiding questions during Exit Interview with patients.....	70

LIST OF ABBREVIATION

CBHI	Community Based Health Insurance
CHF	Community Health Fund
CHI	Community Health Insurance
DDH	Designated District Hospital
DSI	Development Studies Institute
FGD	Focus Group Discussion
HSR	Health Sector Review
MOH	Ministry of Health
MOHSW	Ministry of Health and Social Welfare
SPSS	Statistical Social Science Programme
TGPSH	Tanzanian German Program to Support Health,
Tzs	Tanzanian Shilling
URT	United Republic of Tanzania
VEO	Village Executive Officer
WEO	Ward Executive Office
WHO	World Health Organisation

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

One of the world's most urgent problems today is financing and providing health care for the 1.3 billion poor people who live in low-income and middle-income countries (Carrin, 2003). This is because of the scarce resources, financial constraints, low or modest economic growth which affects adequate financing in health services especially in the low income countries, which for a long time basic health services have been subsidized by the government (Carrin, 2003). Morrestin (2009) defines Health Insurance Scheme as one of the solutions promoted in developing countries since 1990's, to improve access to health care services because it avoids direct payment of fees by patients and spreads financial risk among all the insured.

Studies by World Health Organisation in 2006 have shown low income countries, experience difficulties in achieving Universal Financial Protection (Health for All). The main reasons being Health systems that depend on government share of tax revenue have been constrained by insufficient levels of government revenue which implies that only certain proportion of population would be reached and when reached quality and quantity of health services would be insufficient (Carrin, 2003).

Community health care financing has emerged in developing countries following the challenges that exist in the health financing system which include low economic growth, constraints on the public sector and low organizational capacity (Carrin, 2003). Despite of the fact that Community Based Health Insurance schemes have been introduced in African countries for over a decade, yet these schemes have managed to cover only two million people (0.2%) out of estimated 900 million people (Carrin, 2003).

Tanzanian government in collaboration with World Bank and other donors introduced user fee in as part of health reform program in the country in 1993 (Msuya *et al.*, 2004). User fees were introduced in the early 1990s as part of cost sharing into the public health care system. The results of the user fees showed that, it has inappropriately affected the use of the services by the poor and vulnerable groups. The main reason was the high treatment costs which were to be paid by the patients at each visit. Many of the poor people in the rural areas were not able to access and utilize the health services (Munga and Latevver, 2004).

As a result of this challenge on limited access to health services to the majority of poor people especially in rural areas, in 1996 the Government then introduced Community Health Fund (CHF) which was in the form of prepayment scheme (Mtei and Mulligan, 2007). The CHF has target to reach 85% of the population living in the rural areas and/or employed in the informal sector (Kamuzora and Gilson, 2006). After more than ten years of operation in the country, drop out rates has been one of the characteristic of the CHF in Tanzania.

Hanang District council introduced CIIF in 1998. The council reported an increase from 2% in 1998 to 23% in 1999. However the membership rates dropped significantly to 4% in 2000 and in 2001 declined even farther to 3% (Chee *et al.*, 2003).

CHF was established in Lindi Region in 2005 as per CHF Act of 2001, and it was introduced in Lindi District council in 2006. The council experienced high enrolment rates after the introduction of the scheme at the health facilities. After six years since its establishment in the region, drop out rates in CHF are very high compared to the regions expectations and initiatives of sensitizing the community members to join CHF.

The District Annual CHF implementation report (2010) showed that there is drop out rate of 23% of the enrolled members in the scheme. The reasons for higher rates of drop out are not documented. Therefore the intention of this study was to answer the main question that determined the factors for the CHF membership drop out in Lindi District council.

1.2 Problem Statement

The government of Tanzania established CHF in the councils in 1995. The target of the scheme was to reach 70% of the population who are living in the rural areas, yet to date the CHF has been able to reach only 10% of the population (Timmis, 2009). Lindi Region established the CHF in 2005, with a target of reaching 30% of the population in the region by 2015. However, as of June 2011 the CHF has managed to reach only 3.5% of the target population (CHF Regional Annual Report, 2011).

Community Health Fund (CHF) was established in Lindi District council in 2006, with the aim of reaching 70% of the rural population who are living in the rural areas employed in the informal sector (Lindi DC, CHF Annual Implementation Report, 2010). However, after six years since its operation the drop out rates are 23% of the enrolled members in the scheme (Lindi DC CHF Annual Report, 2010). The drop out of CHF members in the district is very high and alarming, as it also affects the access, provision and quality of health services to the community members who are relying on the few available health providers. There is no definite explanation of the reasons for the decline of enrolments of the CHF members to the scheme. Thus, this study intended to answer the question, determinants for the CHF membership drop out in Lindi District Council.

1.3 Justification of the Study

The study is related to the Community Health Fund Act of 2001, which aimed at improving the management and provision of health care services in the communities. One of the strategies taken being decentralization by empowering the communities to participate in decision making and by contributing on matters affecting their health.

The findings in this study may be used to enable the implementation of National Strategy for Growth and Reduction of Poverty II on its section two which focuses on improving quality of life and social wellbeing of its people. One of the strategies is to ensure that services such as education and health are affordable and can be accessed by the majority of people. Also the findings may be used in Health Strategic Plan III (2003) in its section three focuses on improvement of health insurance through strategies such as increasing revenues at the health facilities, and increase community involvement in utilization of the health insurance schemes, and decision making on spending of generated funds.

1.4 Objectives of the Study

The general objective of the study was to determine the determinants of CHIF membership drop out in Lindi District Council.

1.5 Specific Objectives

- (i) To explore the perception of CHF members towards CHF management.
- (ii) To determine reasons for joining CHF prepayment membership at the household level.
- (iii) To determine the duration of CHF members stay under the insurance before they drop from the scheme.
- (iv) To identify the socio-economic factors for CHF membership.

1.6 Research Questions

The following research questions were employed to guide the investigation of the study.

- (i) What are the main factors for people joining CHF prepayment scheme at the household level?
- (ii) What are the main reasons for CHF members to stop using the insurance scheme?.

1.7 Conceptual Framework

The study adopts two key theories for the conceptual framework. Demand and supply model by Msuya *et al.* (2004); Jutting and Weismann (2008) and Socio-behavioural model by Appiah *et al.* (2011). Demand and supply model, mainly focus on the demand which is created by the people who are in need of quality health care; they have different characteristics. The supply side which is the health care that provides services to the people. Socio-behavioural model which assumes that there are multi-dimensional and complex issues of drop out in scheme membership. From these models, the study assumes that there are multiple reasons for households to decide to join or drop out from the CHF prepayments scheme. The reasons are categorized into two groups internal reasons (include household characteristics like ability to pay the premium) and external reasons (including community participation in the CHF, availability of health services at the facility, availability of health providers at the facility and sources of CHF information in the community). Fig. 1, shows the conceptual framework depicting the relationship between socio-economic and demographic factors and continued CIIF membership and drop out.

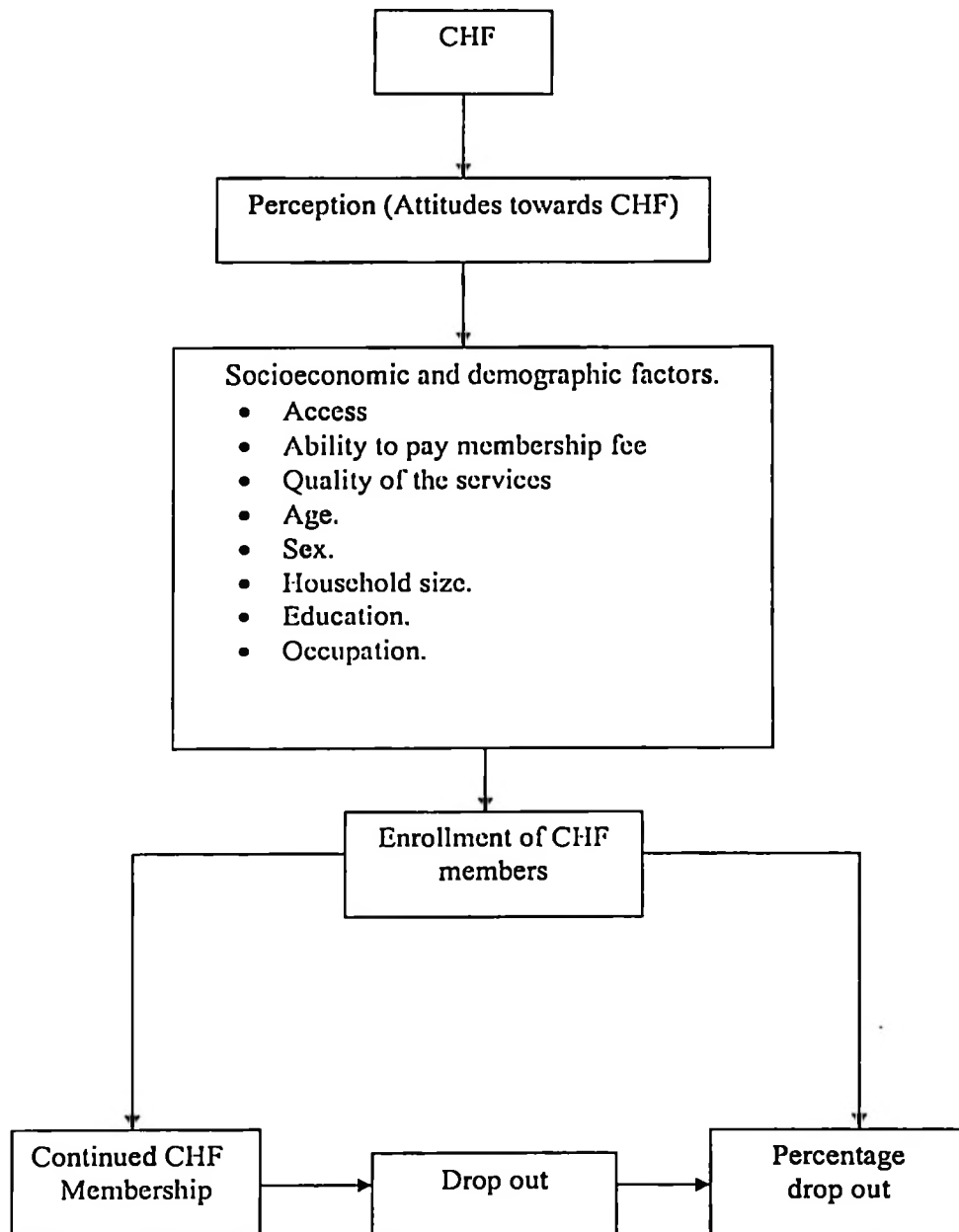


Figure 1: Conceptual Framework

Table 1: Variables measured by the study

Variable	Operation definition	Indicators/unit of measurement
Age	Number of years that respondent has lived	Number of years
Sex	Being male or female	1.Male 2.Female
Household size	Number of household members living in a house	Total number of household living in one house
Income	Annual income earned from different sources	Total annual income earned (In Tshs).
Occupation	Type of activities respondents involved with	1.Farming 2.Business 3.Fishing 4.Others
Education	Level of schooling reached	1. None 2.Seven years 3.Eleven Years 4.Above Eleven years.
Access to health facility	Approximate distance of health facility to the residence	Distance in kilometres
Availability of health care	Provision of health services at the facility	Availability of providers, diagnosis,
Drop out	Stopping using the insurance	Inactive CHF members

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Definitions of Key Concepts

2.1.1 The concept of health insurance

Health insurance may be defined as a mechanism for spreading the risk of incurring healthcare costs over a group of individuals or household constituents (World Bank, 2006). Health insurance schemes are supposed to reduce unforeseeable or unaffordable health care costs through calculable and regularly paid premiums. It is the concept that basically consists of paying the cost of treatment either by providing cashless service to the insured or by reimbursement of expenses incurred (Msuya *et al.*, 2004). In this study, therefore, health insurance should be understood as the prepayment scheme which enables the user to use the health services by using the membership card. It allows the users to access and use services within the set time.

2.1.2 The concept of community health insurance

Criel *et al.* (2004) defines Community Health Insurance as a general term for voluntary health schemes organized at the community level that are alternatively known as mutual health organizational, medical aid societies, or micro insurance schemes. Furthermore, WHO (2010) defines that Community Health Insurance scheme is a concept which covers a wide variety of health insurance arrangements –with vast gradient in terms of ownership management, membership and service as well as financial coverage in distinctive settings designed for different population groups.

Community Health Insurance is a mechanism whereby community members (household) finance or co-finance costs associated with health services. In this way, they have more

involvement in the management of community financing scheme and organisational or health services (Carrin, 2003). Thus Community Based Health Insurance are seen as an option for extending insurance coverage for in low-income countries, particularly among rural and informal sectors of the society (Diop *et al.*, 2006). Hence, in this study, Community Health Insurance schemes is defined as the prepayment health scheme which is organised, managed and whose members share same geographical, economic, social and cultural characteristics.

2.1.3 The concept of community health fund

Community Health Fund is a health prepayment insurance which is related to health reforms that took place in the African countries, as a result of poor economic performance (Carrin, 2003). This poor economic performance affected the ability of the government to provide quality health care, to its populations especially those in rural settings. Community involvement in health is considered as a situation whereby, both individuals and groups exercise their right to play an active and direct role in the development of appropriate health services, in ensuring the conditions for sustained better health and supporting the empowerment of communities for health development (Paradath and Precker, 2003),

The Tanzanian CHF was established by the MOHSW on December 1995 on a pilot basis. Its main purpose was to ensure the availability of quality services at affordable prices and to mobilize additional resources for the provision of health care (Chee *et al.*, 2002). The CHF is essentially a district –level prepayment scheme for the primary care services targeted for the rural population and informal sector (Chee *et al.*, 2002).

The CHF has been established in several districts in Tanzania exemplifies a scheme that is affordable to the majority of population while including exemptions mechanism.

It combines three financing mechanism: user fee, insurance contributions, and matching subsidies from the government and is governed at the district and Ministry of Health (MOH).

The scheme was identified as a possible mechanism granting access to basic health care services to population in the rural areas and in the informal sector in the country. According to the CHF guideline manual, its primary aim is to improve access to health care services for the poor and vulnerable groups .It is built in the concept of risk sharing whereby members pay a small contribution on regular basis to offset the risk of needing to pay a much larger amount in health care user fees if they fell sick (Mtei and Mulligan, 2007).

2.2 Healthcare Financing in Developing Countries

Healthcare financing can be defined as strategies that have been adopted to address the problem of inadequate funds, but they also seek to correct the inefficiencies in the healthcare delivery system to make it more cost effective and able to provide better quality services, increase efficiency in the allocation of available resources and make the health programs more equitable (Mussau, 1999).

Developing countries rarely have financial means and institutional capacity to provide state-based health insurance. A large amount of health costs is thus directly borne by patients. The so called “out of pocket payments” account for one third of total health expenditure in two thirds of all in low income countries (Dressler and Jutting, 2005). Low income families, in particular suffer from these conditions as direct payments pose severe risk of poverty. Without sufficient social protection many household are threatened

by catastrophic health expenditures, especially considering the impact of indirect costs associated with illness like loss of productive capital.

Scarce economic resources, modest economic growth, constrain on the public sector and low institutional capacity explains why design of adequate health financing system in low income countries remain cumbersome and the subject of significant debate (Carrin *et al.*, 2005). Some form of healthcare financing established especially in developing countries included user fees, community health insurance schemes and the National Health Insurance for the civil and people in the formal sector.

The rationale for the current wave of promotion of Community Health Insurance in Africa is based on the recognition that for financial solution to problems and as an alternative to out-of pocket payments which have major consequences for the poor. Through enrolment in the form of community financing schemes, payment is disassociated from the use of the health services, creating a financial buffer between service and seasonal fluctuations in income where a large proportion of the population is active in rain-fed agriculture (Roby *et al.*, 2012). Thus, the community Healthcare financing are supposed to enable families to be health secured through this health insurance.

2.3 Factors for CHF Membership Enrolment

The CHF membership is voluntary and each household has to pay the same amount that has been agreed by the community to be a membership fee and is given a health card (URT, 2001). A household joins the CHF by paying an annual membership fee, which provides unlimited access to outpatient services at CHF participating facilities (Chee *et al.*, 2002).

There are several factors which may influence the household to join the CHF. They may include ability to pay premiums, benefits associated with the premium and quality of the health services provided. Shaw (2002) found that the motivation for the household to join the CHF was threefold. Firstly, there was widespread dissatisfaction with current financing of public operated health facilities, resulting in poor quality of services and limited commodities especially drugs .Secondly, cost sharing by government meant that prepayment by household would be effectively doubled. Third, management of CHF revenues in closer proximity to where members lived was seen as a way of improving control over resources, assuming greater value for money, and improving accountability to household.

The district council in collaboration with district health board is supposed to carry out from time to time, costing exercises to determine the service profile available to CHF card-members. The nature of benefits which are supposed to be made available in the CHF include Reproductive and Child Health services, control of communicable diseases, non-communicable diseases, paediatrics, and other clinical services. Amount of contributions to be paid by CHF members are supposed to be set by the district in collaboration with the community members (Msuya *et al.*, 2004).

However, CHF guideline 2001 elaborates that people who are too poor to pay the required CHF contribution are supposed to be exempted from paying and get free membership. Exemptions are granted by the village council and are not easily given so as not to discourage membership by payment. The district council is supposed to fully subsidize the CHF membership fee of those exempted.

2.4 The User Fee under Health Sector Reforms Program in Health Service

Utilization

Changes in political and economic philosophy in the late 1980's and 1990's marked a major change on how governments' services were delivered throughout the world. The World Bank approach became known as Health Sector Reform Program, emphasized on using the private sector to deliver healthcare services while reducing or removing government services user fees, cost recovery, private health insurance, and public – private partnership became the focus for the delivery of healthcare services (Hall and Taylor, 2003).

In the 1980's nearly all of the African countries imposed user fees on patients using health services. They are defined as amount levied on consumers of government goods or services in relation to their consumption. Arguments in favour of use fee include: increasing economic efficiency whereby scarce resources are allocated to their most valuable uses both within the public sector and between private and public sector (Duff, 2004).

Tanzania, like many countries in Sub-Saharan Africa, faced twin pressure of a tight public healthcare budget and the need to improve health services, especially for the poor and those working in the rural areas and /or the informal sector. As part of wider reforms in the healthcare financing, Tanzania introduced user fees in 1993. This followed the failure of the government to provide free healthcare to all its citizens through tax financing due to increased treatment costs and overall poor performance of the economy (Mtei and Mulligan, 2007).

Through its Health Sector Reform initiative, the Tanzanian government introduced the CHF in 1995 as a new element in the countries health financing strategy (Kamuzora and Gilson, 2007). The centrepieces of Health sector reforms (HSR) are rooted in improving efficiency, equity and resource mobilization through leadership, accountability and partnership at all levels in the health systems. Health sector reforms apply to the decentralization of the health services including participation with development partners, private sector and formation of community based health management structures including Health committees at the Village, Ward and District Health Service Boards (Malauka, 2010).

2.5 Cost Sharing Policies in the Context of Health Service Delivery

Cost -sharing is an approach that was strongly supported by the donor community which was progressively introduced in the 1980s and 1990s. In the developed countries cost sharing is in the form of health insurance which is also subsidized for greater extent by the government revenue (Lateveer and Munga, 2004). The purpose of health financing is to mobilize resources for the health system, to set the right incentives for the providers, and to ensure that all individuals have access to effective health care. For developed countries, they rely heavily on general taxation (United Kingdom) or mandated health insurance (Germany and France) for health financing. Low income countries depend mostly on service user fees making out of pocket payments at the point of service and some also rely on international donor support (Tabor, 2005).

In Sub-Saharan Africa, many Community Based Health Insurance are risk pooling only for the cost sharing element of what are primarily government funded health care services. Many Sub-Saharan governments have moved from fully government –funded

public health care system to a national system of cost sharing through user fee and even to a risk pooling through CBHI for the cost sharing element (Bennet 2004).

The United Republic of Tanzania through the MOHSW supported by the development partners adopted the Health Sector Reform Program in the 1990's. The centrepieces of HSRs are rooted in improving efficiency, equity and resource mobilization through leadership, accountability and partnership at all levels in the health systems.

2.6 Background of CHF in Tanzania

In 1996 the government of the United Republic of Tanzania initiated Community Health Insurance scheme called Community Health Fund (CHF) in order to improve the access to health care and protect people against the financial cost of illness in an environment shrinking budgets for the health sector and economic decline (Mtei and Mulligan, 2007). The scheme was firstly introduced in Igunga District, the central part of the country in 1996 (Msuya *et al.*, 2004).

The CHF is a district –level voluntary prepayment scheme, introduced in parallel with user fees at public health facilities, that targets the 85% of the population living in the rural areas and/or employed in the informal sector (Kamuzora and Gilson, 2007). The general objective of the CHF is to enable all community members to have access to reliable and effective health care by creating a sustainable financial mechanism (Mtei and Mulligan, 2007).

The CHF is form of pre-payment scheme designed for rural people in Tanzania (Mtei and Mulligan, 2007). It is built in the concept of risk sharing whereby members pay a small contribution on regular basis to offset the risk of needing to pay a much larger amount in

health care user fees if they fell sick. According to the CHF guideline, the CHF is a district scheme, in which the Council Health Management Team is the overall in charge of the operation and management in collaboration with community members through Council Health Service Board and Ward Health Committees. These health boards and committees have to include community members, so as to sustain and enable the community members to share their needs, concerns and ways to improve the CHF.

2.7 Community Health Insurance Scheme Challenges and Success

Based on extensive review by the World Bank 2006 on the performance of Community Health Insurance schemes in Africa, they found that the main success and strength of community health financing system is the degree of outreach penetration achieved through community participation, their contribution to financial protection against illness, and increased access to healthcare by low –income rural and informal sectors workers. The main weakness is low volumes of revenues that can be mobilized from poor communities, the frequent exclusion of the poorest from participation in such schemes without some of subsidy.

However, the CHI scheme has also raised a number of problems with such schemes that doubt on their variability. Important issues raised include limited coverage (only 10% of the envisioned 70% population by government in sub-Saharan Africa), exclusion of the poor and those most in need of health care (Msuya *et al.*, 2004), lack of capacity by the scheme managers to manage insurance and negotiate with providers for better quality of care and worries by rural villagers whether their payments to the schemes will be used for their benefit (Kamuzora and Gilson, 2006).

The CHF act of 2001, made the creation of a CHF obligatory for every rural district within two years span and introduced state subsidies for the CHF scheme whereby the member fees are matched by 100% by the central government grant (Carrin, 2000). CHF since its establishment in the country, it suffers from low enrolment rates reaching less than 10% where it has been implemented compared to the expected target of reaching 70% of the population in the rural areas and those employed in the informal sector (Kamuzora, 2005). Despite of these challenges yet the scheme has facilitated to improve the availability of health services and in other councils, the CHF funds has been used to renovate the health facility and improve the infrastructures for service provision.

2.8 Review of Previous Research on CHF in Tanzania

There have been a number of research studies on the CHF in Tanzania, several of these focused on enrolment rates and what are the factors of enrolment (WHO Report 2010; Kamuzora 2007). Shaw (2002) argues that one of the reasons for falling enrolment in CHF is low user fees set at the public health services since they give little incentive for community members to join an alternative financing system like CHF.

Msuya *et al.* (2004), found that low income and income un-reliability is another barrier to enrolment. They found that 63% of the richest household in Igunga District joined the CHF compared to 33% of the poorest household, lack of information due to insufficient sensitization to the community, perceived poor quality of health services, poor staff attitudes (MOH, 2006). Other reasons identified include a widespread inability to pay membership contribution, poor quality of health services, a failure among communities to see the rationale for protecting against the risk of illness, and lack of trust in CHF managers (Chee *et al.*, 2002; Shaw, 2002; URT 2003).

However there is no enough literature on factors for CHF membership drop outs from the scheme, thus the dissertation is intending to report these factors, in order to retain the members. Consequently, they may encourage other non-members to join the CHF scheme and increase enrolment.

2.9 Theories Determining Community Health Insurance Membership

2.9.1 Socio-behavioural model

This approach emphasizes that household decision to enrol or join the community health insurance is a function of three groups of factors: individual factors, scheme factors and healthcare provider factors. Appiah *et al.* (2011) used the model in their study; and their findings revealed that household decision to use community health insurance is a result of these three factors. Individual factors include socio demographic characteristics such as age, gender, education, occupation, family size, marital status, peer pressure, income, place of residence, knowledge of insurance, health beliefs and attitudes. Scheme factors include scheme location, administration, fee amount and beliefs on the insurance. Healthcare provider factors include quality of care, provider staff attitudes and adequacy of service delivery. These factors may facilitate or prevent an individual's attempt to enrol or continue using the insurance.

World Bank review on Community Health Insurance in Africa in 2006 reported that low income households are initially reluctant to join the insurance because they do not readily accept the idea of "paying for the services they might not use. This interprets that households have risk attitudes on non-supportive of insurance.

2.9.2 Demand and supply model

This model assumes that Demand for the health services from the community will influence decision for them to seek health insurance, and the supply of the quality health services will sustain their membership in the community health insurance.

The study by Jutting and Weismann (2008) on factors for CHI schemes at the household level revealed that demand for health services influences the families' decision to join the CHI schemes. When joined the scheme, they expect the health facilities will provide quality services (diagnosis and pharmaceuticals) as a supply side. By using the insurance, a financial barrier to access healthcare are removed for them in spite of possibly lacking cash income at the time of illness and user fees being relatively they can readily get treatment at high respect to their income. As a consequence, they do not have to search for credit or sell assets, and they recover more quickly from their illness because there are no delays in seeking care. The assumption on the supply side is that there is net revenue generation in spite of higher utilization rates, the hospitals or health facilities will utilise financial means to improve quality of care, for example by increasing drug availability and purchasing more necessary medical equipment. Better quality of care will increase expectations of people to get value for money in the case of illness and will again enhance demand for the insurance retain membership fee of those already enrolled in the insurance. This study adopted this model because one of the specific objectives aims at determining reasons for joining the CHF scheme.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Location and Description of the Study Area

Lindi District Council is one of the six districts which constitute Lindi Region. Lindi District council has an area of 7538 square kilometres. It is bordered by Indian Ocean on the East, at the South East it is bordered by Mtwara Rural, in the North it is bordered by Kilwa District and in the West it is bordered by Tandahimba and Newala Districts as shown in Fig. 2. Administratively, the district has 48wards, 156 villages (Planning Office, Lindi DC 2010).The main ethnic groups in the district are Yao, Mwera and Makonde.

The main economic activities include farming which constitute 85% and fishing in few villages which is about 9.6% and the remaining 5.4% is employed in the formal and informal sector (Planning Office, Lindi DC, 2010). Total population in the district is 248 825 at the end of December 2010 (Lindi District, 2010).

In Health sector, the district has 1 Designated District Hospital (DDH) called Nyangao Hospital, Five Health centres and 38 Dispensaries .There is a serious problem of shortage of Human resources for health such that one clinician attends 107 441 patients (1:107,441).

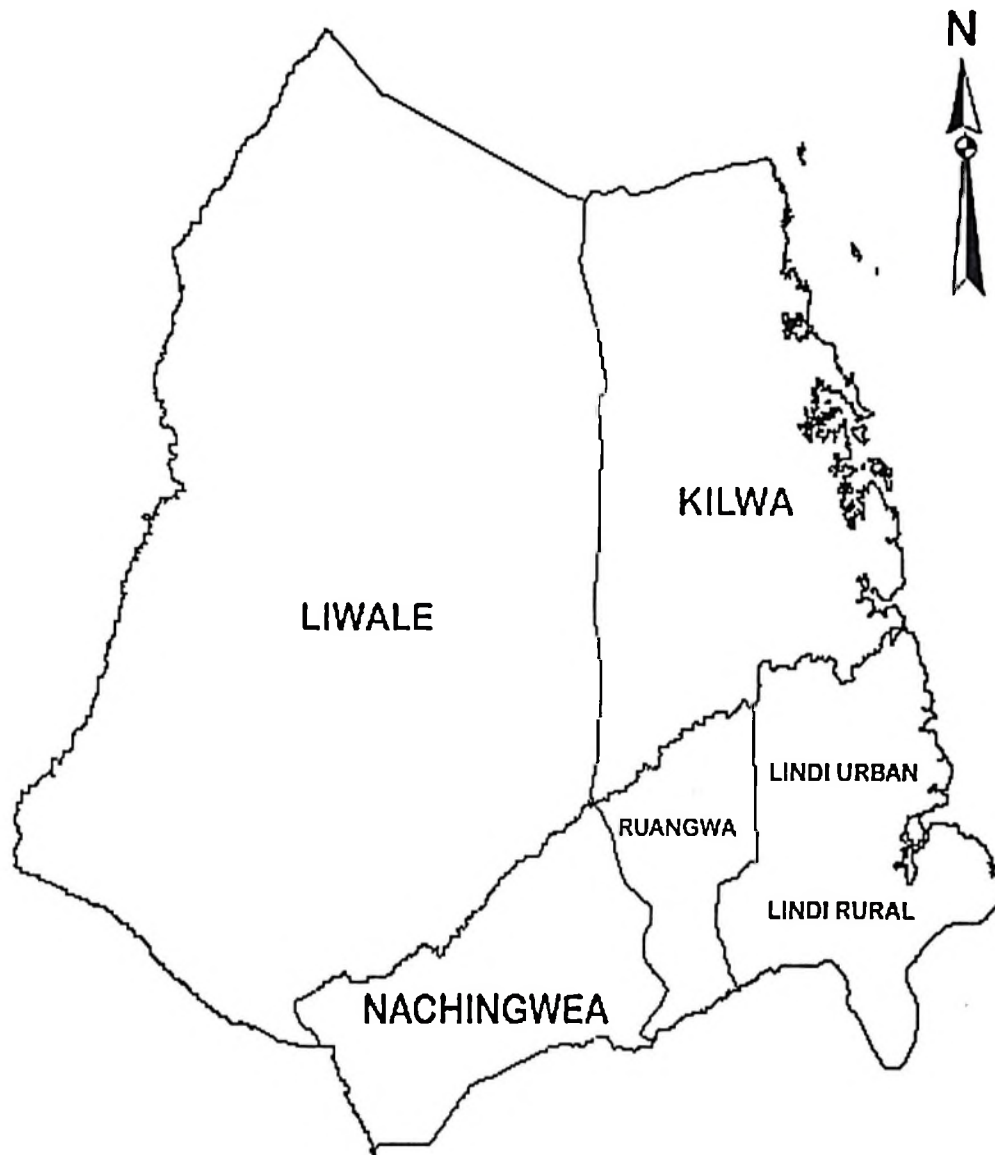


Figure 2: Map of Lindi region showing the Lindi District council.

3.2 Research Design

This study used a cross sectional survey, that enabled the researcher to collect data at a single point in time. This design is preferable because it provides rich, details and in depth information about the relations of the significant factors of the individuals (Kothari, 2004).

3.3 Sampling Procedures and Sample Size

3.3.1 Sampling technique and sample size

The target population of the research were the CHF members who have dropped from the scheme. The unit of data collection was a household. The study employed a cross sectional design and used qualitative data collection method which included interview scheduled with households, key informants and focus group discussion. Purposive sampling technique was used to identify wards with the highest drop out rate in the district. The district has a total number of 48 wards. Out of these 6 wards (Kitomanga, Nyangamara, Mchinga, Rutamba, Mtua and Nyengedi) were selected as they had the highest drop outs as shown in Table 2.

Table 2: Sample Selection

Ward	Total number of Households	Total number of Drop out	Drop out percentage
Kitomanga	526	86	16
Nyangamara	1306	91	6.97
Mchinga	2212	123	5.5
Rutamba	1948	171	8.8
Mtua	1956	33	1.6
Nyengedi	1462	35	2.3

Source: District health data 2011

Thereafter, villages were randomly selected from the above wards. In each ward, two villages were randomly selected from which 30 CHF drop out members were selected in each ward to make a total of 120 samples.

3.3.2 Sampling strategy for focus group discussion

Focus Group Discussion was used to draw upon respondents' attitudes, feelings, beliefs, experiences and reactions in a way in which would not be feasible using interviews (Kothari 2004). The selection of members in the Focus Group Discussion was done purposely to select members who were not interviewed. There were 2 Focus Group Discussions which consisted of 22 members in total (Each group had 11 members both men and women). During the FGD a checklist of questions about CHF utilization was used in order to capture information. Separate interview of the groups is suggested to get a better comparative analysis of the people's views (Kyomugisha and Buregyeya, 2008).

3.4 Type of Data Collected

3.4.1 Primary data

Primary data were obtained directly through structured questionnaire, FGD and interview with Key Informants. Household heads were interviewed face-to-face using questionnaire containing both open and close-ended questions. The questionnaire helped to obtain demographic and socio-economic characteristics about education, religion, marital status and household composition. Other information obtained through questionnaire were about household health services utilization, benefits received from using the CHF, challenges of using health services by using the CHF card, perception and attitudes of the CHF members towards CHF, and reasons for stopping using the CHF membership card.

There was also exit interview with active CHF members who were selected randomly from the facilities to get their attitudes towards CHF services, two Non-CHF health facilities in charges were also interviewed about their knowledge and opinion regarding the CHF and if their facilities would like to participate in the CHF program. Also the researcher conducted interview with key informants who were representatives of Ward Health Committee (in 3 wards where the committees were active, DMO as the secretary of the District Health Service Board, District CHF coordinator and Regional CHF Focal person).

3.4.2 Secondary data

Secondary data on health service delivery by using the CHF was collected from the Regional, District reports, publications and research reports from MOHSW, and records from health facilities.

3.5 Data Analysis

The unit of analysis for the study was a household. The first objective was analyzed by summation of the responses (from 10 statements) from the Likert scale. The second and third objective was analyzed by using descriptive statistics where frequencies and percentages were used. The fourth objective was analyzed by using multiple linear regression models. It was used to determine statistical relationship between two or more variables (Kothari, 2004). In this case, Independent variable (Internal and External factors) how they affect dependent variable (CHF membership drop out).

Here is a formula;

$$Y = a + bx + e$$

$$Y_i = a_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_nx_n + \dots + e \dots \dots \dots (1)$$

Where;

a_0 = A constant

b_1 ... b_9 Coefficient Regression

Y_i = is a dependent variable (CHF membership drop out)

X_1 =Perception of CHF members towards CHF

X_2 =Factors for enrolment in CHF (ability to pay, access to health services)

X_3 =Factors for drop out (education, occupation, household size, income and availability of health services)

e =Error term.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSIONS

4.1 Demographic and Socio-Economic Characteristics

In this section, parameters of demographic and social characteristics of the respondents were described. Table 3, below shows the frequencies and percentage of the population in the study area.

Table 3: Demographic and Socio-economic characteristics of the respondents

Variable	Frequency	Percentage	Distribution
Sex			
Male	106	88	
Female	14	12	
Age group			SD.60893
26- 30years	8	6.7	Mean2.3750
31-45 years	59	49.1	Min.26years
Above 45 years	53	44.2	Max.94 years
Marital status			
Single	0	0	
Married	100	83	
Widow/widower	4	3	
Divorced	16	14	
Education level			SD.379335
None	17	14	Min 1.no education
7 years	101	84	Max 3 secondary
11 years	2	2	Mean 1.8750
Main Occupation			
Farming	112	93	
Fishing	1	1	
Carpentry	3	3	
Business	4	3	
Number of household members			Min 1
1-4 members	33	27	Max.3
5-6 members	67	56	Mean 1.8917
7-8 members	20	17	SD.65844
Income in Tsh			
Less and equal 100 000	29	24	Min.1
101 000-500 000	51	43	Mean 2.18
501 000- 1 000 000	29	24	Maxi.4
More than 1 000 000	11	9	SD.907

4.2.1 Age of the head of the household

The minimum age of respondents who were household head was 26 years and the maximum age was 94 years. In this study, age was an important perimeter because Age may determine household's utilization of health services by using the CHF membership card and income of the household which may affect their ability to purchase or not purchase the health insurance card for the household members Fig. 3.

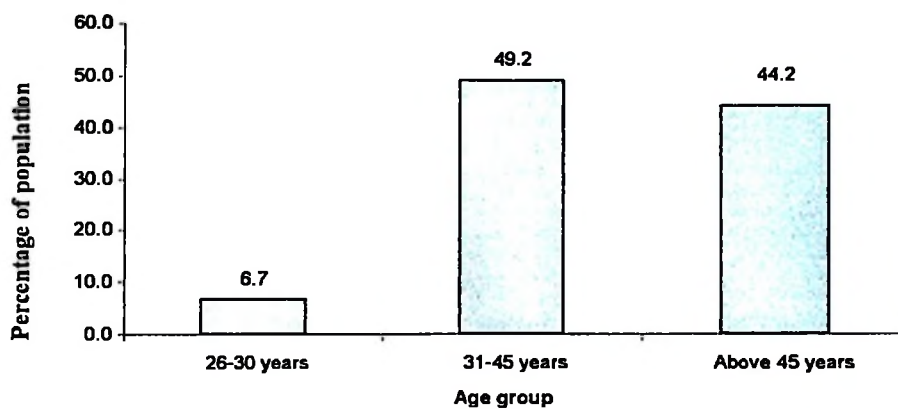


Figure 3: Age of the respondents

4.2.2 Sex of the respondent

The sex of the household head in the family may influence the status of the household in accessing and utilizing the CHF by using CHF. Data obtained from the field indicated that 85 % of the household heads are men and the remaining 14.2 % are female. This is similar to other families in Tanzania, as according to the culture men are the heads of the household. The household decision making including the control and/or decision on how to spend money for important aspects of the households especially on health services may be influenced by the sex of the household head. In this study, this implies that majority of the men are the heads of the households, therefore to a great extent they are the main

decision makers on utilization of the health services at the household (Fig. 4). However, there may be other factors which will be discussed in the following sections.

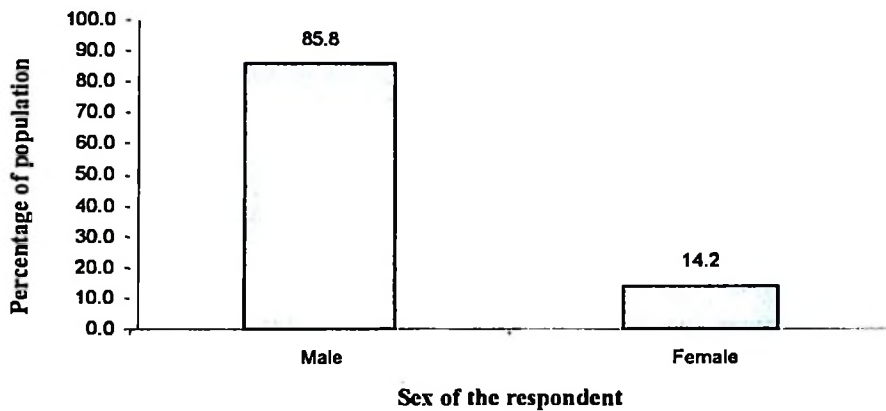


Figure 4: Sex of the Respondent

4.2.3 Marital status

Focusing on the marital status of the respondents, the study found that 83.3% of the sampled population were married, 3.3 % were widowed and 13% were divorced. This is a common characteristic of many households in Tanzanian communities (Fig. 5). However, since the unit of CHF membership is family, therefore head of households who are married have more chances of joining the CHF than those who are single or divorced or widowed. This was found by the WHO study in several Community health fund that more than half of these community Health Fund their unit of analysis is family –mostly parents with their children or close relatives (Carrin, 2003). However, other factors like ability and willingness to pay may influence the household to join CHF.

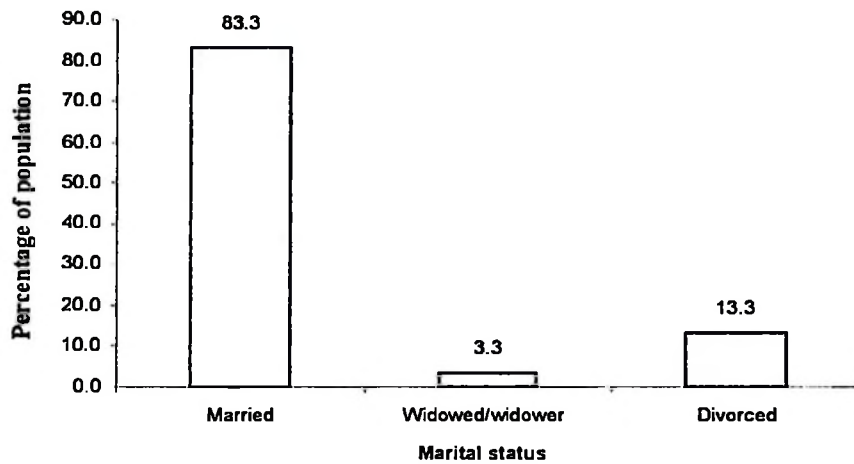


Figure 5: Marital status of the Respondent.

4.2.4 Main occupation

This study revealed that more than half of the population, 93.3% engaged in farming activities while 0.8% were fishing, 2.5% were in carpentry and the remaining 3.3% were in business (retails on crops and pharmaceuticals) Fig. 6. This implies that different economic activities have different output production which also determines the household total annual income. Since the main group consist of farmers, it means that their farm yields and production determines their households' ability to maintain their membership in the CHF schemes. This is also reflected in the CHF guideline which stipulated that the main objective of the scheme was to reach the rural population who are mainly employed in the informal sector, in this case including farming (URT, 2001).

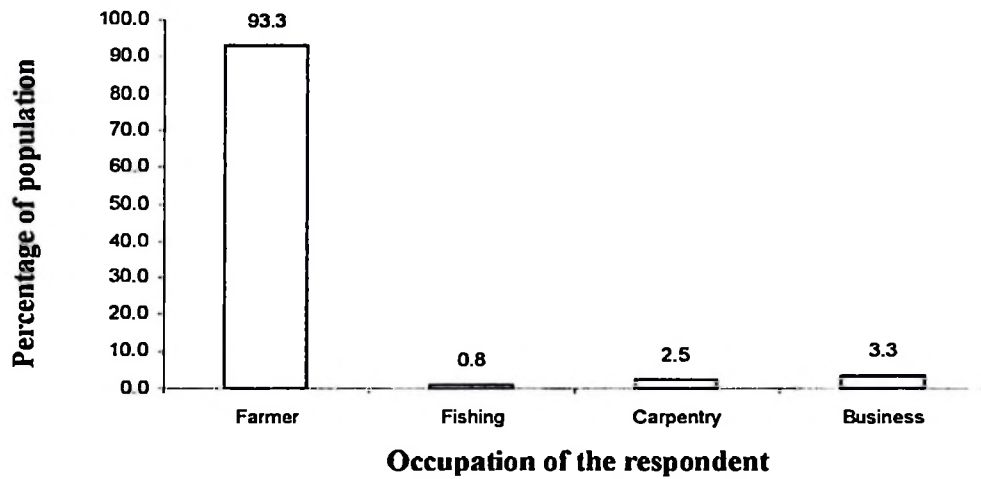


Figure 6: Main occupation

4.2.5 Education

The study found that 14.2 % of the respondents interviewed did not have any education, while 84.2 % had primary education and the remaining 1.7 % had secondary education as showing in Fig. 7. The education level of the household head have an influence on decision making of the important parameters of the household members including health such as the ability and willingness of the family to access CHF information available in the community thus making household decision regarding CHF membership. In this study, it implies that majority of the respondents had at least primary education, which enabled them to access CHF information including benefits of using the scheme. Many household decided to join the CHF because they knew the benefits which are associated with CHF and also protection from financial risk.

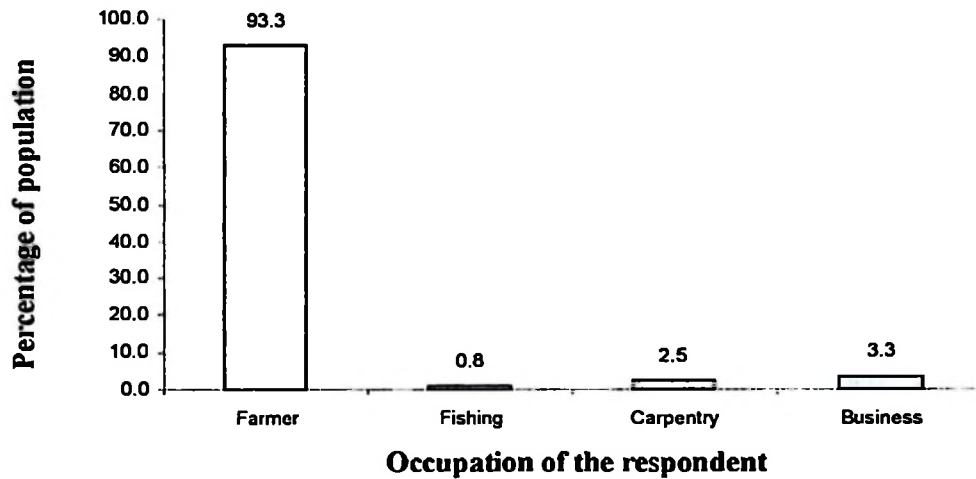


Figure 7: Education

4.2.6 Income

The sampled population interviewed, were also asked about their total annual income from their main income sources. The results from the data collected showed that minimum amount earned by the household was 60 000 Tzs. While the maximum was 2 800 000 Tzs. Also, the data from the study (Table 4) found that 24.2 % of the respondents have annual income less than 100 000Tzs. 42.5 % earned less than 500 000Tzs. 24.2 % their annual income was less than One Million Tanzanian shillings and 9.2 % annual income was more than One Million Tanzanian shillings. This implies that these different income levels influence on household ability to utilize CHF membership. For example, households with less income had higher possibilities to drop from the scheme because of their inability to pay for the membership, as a result failing to maintain their CHF membership thus they drop from the scheme after the initial entry in the scheme

Table 4: Total Average Income (n=120)

Income (Tshs)	Frequency	Percentage
Less than 100 000	29	24.2
100 000-500 000	51	42.5
500 000 -1 000 000	29	24.1
More than 1 000 000	11	9.2

4.2.7 Household size

The results of the study Table 5 showed that majority of the households (56%), consisted of family members between 5-6 persons and the lowest group (17%) consisted of household members between 7-8 persons. This is different from a study on CHF conducted by Chee *et al.*, 2002, who found that average person size of CHF members household ranged from an average of 5 persons to 10 persons. This may be influenced by the fact that CHF contribution fee is the same through out the households in the District regardless of family size up to 6 people. In this study, household size implies that households with more than 2 people joined the scheme because it was cheaper as the insurance covers a minimum of 6 households' members.

Table 5: Total number of household members (n=120)

Number of household members	Frequency	Percent
1-4 members	33	27.5
5-6 members	67	55.8
7-8 members	20	16.7

4.3 Perception of CHF Members towards CHF Management

Kothari 2004 defines Perception as the scale that consist a number of statements expressing either a favourable or unfavourable attitudes towards a given statement which the respondent is asked to react. Thus, in this section the analysis and discussion of the

results focus on the second research question as articulated in Chapter One. The section will start by looking at the general perception of CHF members towards CHF management, perception towards utilization of membership contributions and perception towards CHF usefulness.

The questions asked were about the community perception towards CHF management, community member's involvement in the operation and management of the CHF. There were 10 statements which related to the concept of CHF management through which favourable and unfavourable responses were used.

The results in Table 6, suggest that majority of the respondents perceived that CHF management is very poor and weak. They are aware on the existence of the scheme at their facilities, but they are not informed of any activity related to management and operation, as beneficiaries of the premium expected that they should be informed and given an opportunity of participating in the management. This may have been caused by the fact that, in many of villages visited during the study health committees at the ward, village and facilities had limited knowledge on their responsibilities towards CHF (as lack of sensitization), some were not even active members of the scheme.

Table 6: Overall Perception on CHF Management (n=120)

Perception	Frequency	Percentage
Unfavourable	113	94
Neutral	3	3
Favourable	4	3

More than half of the respondents 94% said that, community members were not involved in any way in setting the contribution fee. The fee is usually set by the district and then shared to the facility in charges who then share it with their clients. Although, the CHF manual states that Community members should be involved in daily to daily activities including membership fee, which benefits should be included in the premium yet in the study area this does not happen.

Also, during interview and FGD, respondents said that since they joined the scheme there have been no meeting where as members and beneficiaries of the scheme are invited to attend in order to give their views regarding the services they get through their CHF membership card. Some of the respondents (especially those who were retired local leaders) felt that the local leaders are not well informed, sensitized on the contribution of community on the operation and management of the CHF, some of the leaders are not even active members the how can they involve community while themselves are not involved in any way?. One of them said,

“When I was a village chairman, after we were sensitized, I made sure that all village and ward council members were active CHF member;, they used their meetings with communities in their areas to sensitize them and the end result was good because our ward was the first in the district with higher enrolments and contributions collected compared to other wards ” .

Furthermore, when respondents were asked if they have attended any CHF meeting in their area only 28% said that they have attended a sensitization meeting which was conducted in the village, organized by district. Similarly, Chee *et al.* (2002) found that communities in Hanang District had little participation in the CHF management and fee setting. Also, most of the CHF members interviewed had never attended a meeting among

CHF members to discuss the program or use of funds, voice suggestion or complain against CHF. Also, Chee *et al.* (2002) noted that in most wards in Hanang District community participation in the CHF was limited such that there was no feedback from the committees to the community.

One of the reasons mentioned, by the key informants was lack of community sensitization meetings in the villages. Health committees from the village to the district were poor and weak. Many of the ward, village and health committee's members are not active members of the CHF, as a result, it becomes difficult for them to be actively involved in community or to be sources of CHF information in the community. This situation is also revealed when only 28% of the respondents said they have ever attended any CHF meeting in the area. These meetings were organised by facility whereby the district focal person that is DMO was the main speaker and one of the issues was about CHF benefits—serving money for households, allow them unlimited healthcare services. Although, community members had raised the issue of poor quality of health services as a challenge yet there have been no improvements at the facilities and in some of the village meetings there are no health issues discussed or raised. The study also revealed that, out of the four wards visited only one ward had an active facility health committee with active committee CHF members.

When leaders in the community are not adequately involved in efforts to mobilize community members to join or what should be done to improve health services in the area it brings a question on sustainability of the project and if it really pro-poor. Jutting and Weismann (2008) argue that creating a sense of ownership and trust is important to control for moral hazard and regular community level meetings and workshops, where community could express their views on the design of the scheme towards success.

Study by Carrin (2003), revealed that in Rwanda where the government has shown stewardship by stimulating improved democratic governance in the health sector, schemes have now general assembly where members are able to interact with schemes' administration about needs, and suggestions for improvements of the CHBI membership has increased. In other districts like Muheza, where the council has strengthened the community participation through strengthening of the village, ward and facility health committees has enabled the community members to improve the operation of the scheme for it has influenced the implementation of the exemption policy for those households which fit the criteria.

4.3.1 Perceptions of CHF members on utilization of CHF contributions

Another indicator used to measure perception of CHF members on CHF management was on their knowledge about the utilization of CHF contributions. Results from the study revealed that 38% of the respondents were aware (through friends and radio) that of the use of the CHF contributions was for buying drugs for the facility, conducting minor repairs at the facility like furniture, buying of kerosene and the remaining 62% did not know what were uses of CHF contributions. This implies that there is a limited access on the information towards CHF including uses of the CHF contribution which would have otherwise available if the local and influential leaders were actively involved so that through committees, CHF members would benefit from their contributions by getting quality health services especially drugs. Also, through active community participation would have influenced the utilization of the CHF contributions which are accumulating at the districts instead of being used to improve health services.

This is similar to observations made by Chee *et al.* (2002), where they found that CHF members were not well informed about how CHF funds and programs are managed particularly decisions regarding the use of CHF funds, although majority of households believed that they should be used to buy drugs, medical supplies and/or equipment and to make improvements of the health facility.

4.3.2 Perception of CHF Members towards CHF usefulness

From the results obtained, the study revealed that many people (87%) believed that their CHF membership had been useful to their households (Table 7). They felt that, the insurance has enabled their families to be health secured such that they spend less money for health for the household members. Although, there are other challenges in health care received at the health facilities like lack of drugs, but the insurance itself enabled them to access health services whenever they needed them even when they do not have money at hand they are sure of getting healthcare services.

Table 7: Perception towards CHF usefulness (n=120)

Perception	Frequency	Percentage
Unfavourable	12	10
Neutral	3	3
Favourable	105	87

The study by Ogwae (2000), revealed similar findings that the households in Igunga District perceived easy accessibility of health services as a benefit. Good services in general, drug availability and reduced costs were cited as by benefits by majority of households respectively.

4.4 Determinants for CHF Membership Prepayment at the Household Level

In order to determine the main reasons which motivated households to join the CHF premium, respondents were asked about the reasons which influenced them to join the CHF scheme. Data from the study revealed that more than half of the respondents (72 %) joined the CHF scheme so as to be insured by having assurance of receiving health services at all time through out the year (Table 8). This is because by paying the membership contributions they are sure of receiving health services even when they do not have money at hand 25 % of the respondents joined the CHF scheme because of benefits associated with the scheme such as free diagnosis, drugs, and referral to the district hospital. The remaining 3% of the respondents joined the scheme because they were asked to join by their family and friends.

The respondents were of the opinion that paying the membership contributions once in a year is better and help them to save costs for health services. As farmers, their economic activities does not guarantee them having money through out the year to cover the medical expenses for the household members. For them paying Tsh 5000 for the health services through out the year for six family members regardless of number of visits to the facility was an incentive because they found it to be cheaper than paying for a visit made by each of the household member.

Another reason mentioned by respondents as motivation for them to join the CHF was to get the benefits associated with the CHF. The perceived CHF benefits included the services received at the facility including seeing a clinician, getting diagnosis and prescription. In user fee, the patient has to pay TZs.1000 (for Dispensaries, at health centres they pay TZs. 2000) for the registration per visit, there is also payments for drugs which depends of type of drug prescribed therefore, respondents found that it is more

beneficial for household to pay five thousand for one year for 6 members of households instead of the other way round that is paying user fee.

Table 8: Reasons for joining the CHF prepayment scheme (n=120)

Reason	Frequency	Percentage
Referred by Friend/Relative	4	3
To get assurance	86	72
CHF Benefits	30	25

This is different from the observation made by Chee *et al.*, 2002: Kamuzora and Gilson in 2007 they found that majority of the rural people in Tanzania saw health risk as a rationale for joining the CHF. The health risk which may force the household to sell assets in order to pay for health care costs. With the insurance, household's out of pocket payments are removed and the family members are relieved and can continue with their production especially since the majority of these households are involved with non-formal sector with farming as their main source of income, which may otherwise be affected by the inability to work as a result of illness or selling of assets to pay for medical bills.

Jutting and Weismann (2008) argue that, it is important that the benefit to be expected from the CBHI schemes is affordable and include basic services tailored to the health care needs and preferences of the local population. The ultimate benefit to be expected from the CBHI for the population is its potential positive impact on health and social security. Furthermore, majority of the respondents felt that their CHF membership card assured their families access to basic health services, it enabled them to get diagnosis and drugs (except when they are not available). As well, has enabled them to improve their social life through reducing health expenditure which was allocated to other development issues

and even when the head of the household is far away from the family, she/he is sure that the family members will be able to get health services.

However, a study by Tabor in 2005 found that apart from the above mentioned reasons clients must understand what they are buying before the premiums are paid if they are expected to renew their membership. In another study by Bennet (2011), showed that when clients do not understand or know what they are buying, they will perceive that they are not getting their money's worth because they are not getting their money's worth for they are not getting the kind of services they expected.

4.4.1 Other reason for joining CHF membership at household level

Another reason for which may have influenced the decision of the household to join CHF prepayment scheme was the household size. This is because the CHF membership allows maximum of six members thus from the sample population the majority of the respondents had family size ranging between 5-6 members consisting of 56% while 27% was for the household size between 1-4 members and the remaining 17% was for the family size of 7-8 members. This also attributed the fact that membership contributions are flat across the members regardless of the family size (to a maximum of 6 members per household). This is similar to another study by Msuya *et al.*, 2004; Musau 1999 and Musau (2004) who found that households with big family members were more likely to join the scheme than small family size household .It was consistent with the rational decision making behaviour of the household since the amount of contribution TZS. 5000 was independent of the family size. Also from the Rwandan Project study by the WHO in 2003 found that large households with more than five households had a greater probability to enrol in the CHF than others.

4.5 Duration of CHF Members Stay under the Insurance before they Drop from the Scheme

In order to determine length in which the households stay under the premium before they drop from the scheme, the respondents were asked when they joined the scheme and when was the last time their CHF membership card was used.

The results from the study found that majority of people joined the scheme on the second (38% in 2007) and third year (28 % in 2008) after the operation of the scheme began. Thereafter, the CHF membership started to drop and continued to drop till in 2010 when it reached 3 %. This means that after the establishment of the scheme, many people were willing to join the scheme thus enrolment increased within the few years of operation. Similarly, Chee *et al.*, 2002 observed that, CHF membership for the district increased from 2.4% of the households during the last quarter of 1998, when CHF was implemented in the district, to a peak of 22.8% .They argued that such increase may have resulted from the wide spread community sensitization where many people are willing to join the scheme during the establishment of the scheme, however after using for a while they may stop using the insurance –causing CHF membership drop outs when they do not get the kind of services they expected.

Moreover, the duration of the CHF membership in the scheme may be seen on the fact that many people (80%) said that having their insurance card at the household although it gave a sense of security for health matters at household level yet it did not increase or decrease their visits to the health facility (Table 9). The assumption being, with the insurance which does not limit number of visits members may be attracted to visit the health facility because they are not going to pay more.

Table 9: When CHF members joined and dropped from the scheme (n=120)

	2006	2007	2008	2009	2010
Joined CHF	17	38	28	14	3
Stopped using CHF	0	2	15	46	37

On the drop out, many households dropped from using the CHF prepayment scheme between 2009 and 2010 where the drop outs were 46 % in 2009 and 37% respectively. The lowest drop outs were in 2007 which was observed to be 3%. This was largely caused by poor quality of the health care services at the facilities, lack of enough information and other sources of CHF information especially since main source of information about CHF in all villages visited was at the health facility 66%, while 18 % got the information about CHF in the village meetings when the district focal person for the CHF visited the villages for the sensitization , and the remaining percentage got the information from other sources in the villages like through friends, and community volunteers (Table 10). However, during interview with key informants and FGD the respondents said that there are no other sources of information in the community except at the facility which means that village, ward and facility governing committees are not sources of CHF information mostly because they have not been involved in the CHF activities, even members in some of these committees are not CHF members .Therefore, it becomes very difficult and unrelialistic for them to encourage community members to join CHF.

Table 10: Sources of CHF information in the community (n=120)

Source of Information	Frequency	Percentage
Village meeting	21	18
Friend	9	8
Health Facility	79	66
Community Volunteers	7	6
Others	4	3

From the analysis of the sample population interviewed on duration which CHF members stay under the insurance before they drop out, showed that majority of CHF members 42% stayed in the CHF premium for the three years before they drop out from the scheme, whereas 33% stayed in the premium for 2 years followed by 17% who stayed in the CHF membership for a period of one year and the remaining percentage remained in the insurance in a period between 4-5 years (Table 11). This implies that, when household is joining the CHF is expecting to stay in the scheme for a long time unless there are problems, challenges within themselves (like ability to pay for membership) or health care provision related ,it also shows how far are the communities willing to use the premiums therefore existing problems and challenges should be addressed and dealt with in order to encourage CHF members to renew their membership so that services received may be worth of their contributions.

Reasons given by respondents as influencing to stay in the insurance for that periods included the assurance that the family members were able to access and utilize healthcare services at any time; they felt that having the insurance enabled them to focus on other development issues like farming ,business and even when they are away from their home or do not have money at hand they are sure that their families will be able to get healthcare instead of not having the insurance, which forces the family to spend more money on healthcare sometimes when the family does not have money they have to sell some of the harvest in order to get money for healthcare.

Table 11: Duration of CHF membership (n=120)

Duration (Years)	Frequency
1	17
2	40
3	50
4	10
5	3

Another reason for joining the CHF prepayment among household from the findings of the study was affordability. From the sample of respondents interviewed 72% were on the opinion that CHF membership fee (Tzs.5000) was affordable to the majority of people while 6% felt that the membership contribution fee was expensive and the remaining found the membership fee to be fair .This was because they found that before they joined the insurance they used to spend more money for health services. Likewise, income level of the households revealed that majority of the households (43 %) annual income was less than 500 000 Tzs. while 24% annual income was less than 100 000 Tzs. and 24% annual income was less than 1 000 000 Tzs. and only 9% of the household interviewed annual income was more than 1 000 000. Tzs. This implies that, CHF contribution of. 5000 Tzs for the household is affordable to majority of the middle and relatively low income families to allow them to access health services for the whole year through.

Similar observations were made by Shaw 2002, who argues that one of the main motivations for the families to join the CHF was affordability to pay the membership fee. Also, Carrin, 2003 found that one of other factors for family to join CBHI is affordability, can the family afford the membership contributions. Furthermore, Msuya *et al.* (2004): Shaw (2002) and Chee *et al.* (2002), found that income was one of the most important

determinants of whether a household joined the scheme or not where a 10% increase in income was likely to increase the probability of visiting a modern medical care by 6.4 %.

Jutting and Weismann (2008); Lateveer and Munga (2004) argue that a certain flexibility in the paying of the premiums procedure had an influence on the targeting of the poor people. Premiums collection should be performed during the season when cash income is higher so as to allow community members to pay for new or renew their membership when they have money which is in many rural settings is mostly after harvest (as the majority of rural communities in Africa are in subsistence farming). This was also observed in the study area whereby respondents said that, one of the other reason for people joining the CHF prepayment scheme at household level was flexibility of time for collecting the premiums. There are no restrictions on time of collecting the premiums/paying for CHF membership contributions, the time to pay is flexible according to the ability and readiness of the family. From the discussions with the respondents more than 90% of the respondents felt that the flexibility of collecting premiums was okay and also, they feel that many of the households have ability to pay for their premiums after harvest when they have more money.

4.6 Reasons for CHF Membership Drop Out

In the course of establishing reasons for CHF membership drop out, a statistical analysis was carried out by Regression model to test the significance of Independent variables to the Dependent variable. The regression analysis shows a strong R² and significant P-Values. This implies that the explanatory factor have adequately contributed to the variation in the dependent variables. Table 12, shows that income, education, size of the household members, sex, education, occupation ,access to the health services, lack of drugs at the facilities and poor quality of the health services were the factors. Of the

significant variables lack of drugs (P-value 0.000 which is < 0.005) and poor quality of the health services (P-Value 0.001 which < 0.005) have stronger significance compared to other variables. This implies that lack of drugs and poor quality of the services contributed more to the CHF membership drop out in the study area.

Other factors which were taken into account during the analysis such as education, access to the health services, sex of the household head, occupation did not affect the decision of the household to drop from the scheme. One would expect that more educated people were more likely to continue to use the scheme, than less educated one. Likewise, those living close to the health facility would retain their membership because they would not need transport costs to the health facility compared to those who lived far from the facility. Also, one would expect that more farmers would join and retain their membership in the scheme because of risk pooling factors, as their income is seasonal the premium would enable them to reduce treatment costs, and also because the CHF is ideally for the majority of those who are engaged in the informal sector. However, that was not the case as shown by the insignificant coefficients of education, access to the health facilities, household size members, occupation, income and sex. Msuya *et al.* (2004) had similar observation on education and access to the health services (approximate distance from residence to the nearest facility) as not affecting the decision of the household to join or not join the scheme. The real distance is often far greater, if treatment is limited by the quality of the nearby services. For example, poor quality trained staffs and lack of drugs.

Table 12: Reasons for CHF drop out

Model	Coefficients(a) Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.923	1.378		4.298	0.000
Income	-0.482	0.215	-0.175	-2.244	0.027
Poor quality of the services	1.125	0.343	0.249	3.284	0.001
Availability of drugs at the facility.	-2.141	0.392	-0.419	-5.456	0.000
Access to the services	-0.348	0.339	-0.077	-1.025	0.307
Age	-0.013	0.016	-0.087	-0.815	0.417
Sex	0.052	0.477	0.010	0.109	0.913
Education level	-0.736	0.683	-0.111	-1.077	0.284
Occupation	-0.055	0.226	-0.019	-0.242	0.809
Household size	-0.366	0.231	-0.121	-1.585	0.116

a. Dependent Variable: Reasons to stop using the CHF

Lack of drugs at the facilities has been cited as one of the challenges that affect the operation and threatens the success of the CHF. Also, during interview with exit patients they raised the issue of poor quality of health services as one of the reasons for drop outs, and also some of the providers do not provide clear instructions and prescription to the clients like alternative drugs when one prescribed is out of stock. Similar observation was made by Msuya *et al.* (2004), whereby 10% of the respondents complained that usually some of the prescribed medicines were not available at the CHF designated facilities. Study in Igunga by Ogwae 2000, revealed that one of the main reasons for non-CHF members not joining the insurance was the issue of lack of drugs at the facilities and lack of laboratory services.

Although the CHF guideline manual stipulates that one of the reasons for establishment of the CHF is to improve availability of drugs which was identified as one of the greatest challenges of health care in rural setting, through use of CHF contributions yet in the council the observation made was that since its establishment in 2006 the CHF

contributions have been accumulated in the district it has not been used. Availability of medical supplies and quality improvement are considered as essential for willingness to pay a user fee or CHF premium (Chee *et al.*, 2002). This result is similar to a WHO in 2003, where the study found that Quality of care was mentioned 383 times by participants during FGD as an important factor in the population towards scheme that is prefer not to enrol but rather seek care elsewhere (and admitted paying more) in order to receive better quality care.

Moreover, CHF members were aware of the fact that one of the main reasons for the establishment of CHF was to buy drugs at the facilities, yet since the contributions of CHF collected by the facilities has not been used members are discouraged by the frequent lack of drugs at the facilities .One of the villager said:

“What would be the use of paying CHF contribution while there are poor healthcare services at the facility especially frequent lack of drugs (over one month in one quarter)? When a member pays the premium yet is told there are no drugs or syringes instead a client should go and buy from the pharmacy ,therefore it is better not to pay the insurance and when the need for health arises I will go to the district or regional hospital to get more quality health services both diagnosis and drugs”.

Likewise, Timmins 2010 found that lack of medications in Kongwa District was cited as an important reason why many non-members had chosen not re-enrol. However, other districts like Hanang which have managed to use CHF funds collected between 1998-2000, 18.2% used for drug procurement, lack of drugs was not the main reason for low enrolment rates (Chee *et al.*, 2002).

Furthermore, poor quality of services at the facilities was another reason for CHF membership drop out. Poor quality of the health services was described to include availability of health providers and diagnostic services at the health facilities. In one of the Health centre visited during FGD and interview with key informants and respondents, it was revealed that although there is an Equipped Laboratory with all the essential equipment yet there is no laboratory technician to provide the laboratory services. As a result of shortage of human resources for health, the district has not been able to assign the laboratory technician. Also during FGD and Interview with some key informants (Ward and village leaders) they mentioned about negative attitudes of the service providers towards CHF members compared to non-members who pay cash during their treatment. This discouraged the CHF members to use their premiums when accessing the health services. They said that, although they have paid for the health services but at times they prefer to go to the private health facilities to get better quality services especially staffs with positive attitude and diagnostic services which are very poor and unavailable at their facilities.

Kamuzora and Gilson 2007, also found that majority of poor people felt that quality of services was very poor especially on lack of essential medical supplies ,inappropriate diagnostics due to lack of diagnostic equipment and laboratory staff related problems. Several participants said that they would prefer not to enrol in the CHF but rather seek care elsewhere (and admitted paying more) in order to received better quality care.

4.6.1 Other reasons for CHF membership drop out

Some of the CHF members decided to stop using the CHF prepayment scheme because since its establishment over five years ago, it was limited to only one facility (where one registered). The district introduced this policy so as to avoid multiple use of CHF

membership card for the previous cards did not have photo identification of the household head. Early when the CHF started to operate in the district, the policy for using the insurance was that the CHF card will be used only at the facility where one has registered it meant the card was only valid in one facility, if it happened that CHF member needed care outside his facility will have to pay for the service, it also covered basic curative and inpatient services only. This discouraged many people, especially on the limited use of the card within the facility and in forced the families to spend extra money on health services which had already been paid for. However, according to the DMO the card is now (since September, 2011) valid through out the operating CHF facilities in the district. During the interview with key informants and FGD, respondents were concerned with this limitation, one of them said;

"In these rural setting many people are getting their money through farming activities, when they get money after harvesting they buy the insurance for their families with uncertainty of its use yet when they are far away from their residence they are not allowed to use it; they have to pay another money for health services and buying for drugs. Thus it is easier to pay for the services when one is going to need it/ is in need".

CHAPTER FIVE

5.0 CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This study found that majority of people have negative perception towards CHF management mainly because as the beneficiaries of the services and scheme, they are not involved in any way in the neither management nor operation of the scheme. Despite of the lack of community involvement and participation in the CHF, yet majority of them are aware of the benefits of using the scheme. The insurance gave them assurance of getting the health services all through out the year without paying extra money. When they join the scheme, majority of them stay under the insurance for a period of three years before they drop out. Despite of the known benefits of the scheme CHF members decide to drop from the scheme because of several factors mainly due to poor quality of the health services, frequent lack of drugs at the facilities and limited access of the health services.

5.2 Recommendations

- (i) From the above conclusion from this study, the following are the recommendations. Firstly, strengthening health services at the facilities by ensuring availability of drugs at the facilities throughout the time will motivate more households to enroll in the scheme and retain those who are already members.
- (ii) Secondly, the study proposes strengthening of the quality of health services particularly on availability of qualified health providers and improved diagnostic services especially at the primary facilities (Dispensaries) which are the main facilities for majority of rural populations.

- (iii) Thirdly, the study suggests the district and its health service board to review its policy on CHF membership to allow access of health services beyond the residence facility and also mechanism which will allow special groups like old people and those with disabilities to access health services.

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APPENDICES

Appendix 1: Showing Interview schedule on Determinants of CHF membership drop out in Lindi District Council

A. Introduction

My name is Delfina Reuben, a master's student at Sokoine University of Agriculture (SUA). I am working on a research titled Determinants of CHF membership drop outs. The main objective of my research is to determine factors that are responsible for CHF members to stop using the health insurance. Moreover, it is an independent research and has no ties to any institution, NGOs or government. Either, I promise that, any information provided will be confidential.

Date of interview _____

B. 1. Basic Household Information (Please circle the right answer).

Date of interview	Village/Hamlet	Division/Ward
Household code	Name of respondent	Religion 0=None Religious, 1=Christian 2=Muslim 3=Others
Respondent's Age (Years)	Respondent's Gender. [1]=Male [2]=Female	Respondent's Ethnicity 1=Makonde 2=Yao 3=Mwera 4=Others (Specify).....
Age of the HHH(years) show	Sex of HHH [1]=Male [2]=Female	Marital status [1] Single [2]Married [3]Widow/widower [4] Divorced.

2. Household composition (only those living in this house). Write the right code in the column.

Household members	Relationships to HH Head	Age (years)	Sex	Education level	Occupation
	1=Head 2=Wife 3=Husband 4=Child 5=Other relatives 6=None relative		1.Male 2.Female	1=None 2=Pr. education 3=Sec. education 4=Post-sec. education 5=Other	1=Child 2=Student 3=Farmer 4=Civil servant 5=Fishing 6=Others
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

3. Members of household permanently or mostly away.

ID	NAME	AGE (Years)	SEX 1=Male 2=Female	EDUCATION LEVEL	IF SENDS MONEY Home (Tick the Right answer).		Estimated amount last season.
					Yes	No	
			CODE	CODE			Amount (Tshs).
1.							
2.							
3.							
4.							
5.							
6.							
Total family members permanently or mostly away							
Total remittances in the past year						Period from	To

C: Household socio-economic characteristics

4. Crop land owned and operated by the household.

Field	Area of each Field or plot (acres).	Ownership 1=Owned(idle) 2=Owned(used) 3=Own (rent out). 4=rented in 5=borrowed	Rent in Land Amount Paid (TSH)	Rent out Land Amount Paid (TSH)	Major crops	Production Domain 1=Dry season 2=Rain season
1.						
2.						
3.						
4.						
5.						
6.						
Total number of plots (Sum codes 1-3 under ownership)			Total area owned		Total area used for farming (including land rented in or borrowed).	

5. What is your total average annual income _____?

6. Health services availability within the reach of the household (Code please).

Type of health service available in the area.	Available services at the facility in the area.	Approximate Distance from residence to H/Facility.(Kms) show actual distance
1=Dispensary 2=Health centre 3=Hospital 4=Traditional 5=Others	1=Out patient services 2=In patient services. 3=OPD and INP services. 4=Others	
CODE []	CODE []	

D; Knowledge of the Community Health Fund (CHF)

7. Can you please describe what the CHF is? How does it work ?

8. Do you know why the CHF was created by the Ministry of health?

9. Do you know how money collected from CHF membership contribution is used?

10. Do you know about the CHF exemption policy and procedures? If yes how does exemption system work?

11. When can community members join the CHF? Is it okay with you?

12. Where did you first learn about CHF?	1=Village meeting 2=Neighbor 3=Friend 4=Health facility 5=Community volunteers 6=Others	Code
13. Do you own a CHF membership card?	1=Yes , 2=No	
14. What are kind of services does a CHF member receives at the h/facility?	1=out patient 2=Inpatient services 3=Referral 4=Outpatient and Inpatient 5=Others	
15. When did you start using your CHF scheme card?	1=2006 2=2007 3=2008 4=2009 5=2010	
16. What were the motivations for you to join the CHF?	1=Recommended by friend/neighbor 2=Village leaders told us 3=To get ensured. 4=Benefits associated with insurance 5=Others.	
17. What were the main reasons for you to stop using the insurance?.	1=Poor quality of services 2=Absence of health services at the facility 3=Minimal health package 4=Lack of community participation in CHF management 5=Distance. 6=Financial 7=Others	
C: Utilization of the health services		
18. (a)Where do you go for health services ? (b) When was the last time you used the insurance ? (year)		
19.Do you tend to go the dispensary /health centre more often or less frequently now that you are a CHF member ?		

20. When you visit the health facility do you get the services and drugs prescribed by the physician?	1=Yes 2=No	
21. What do you do if there are no drugs at the health facility?	1=Buy from the pharmacy 2=Request a referral to another facility 3=Nothing 4=Request assistance from family members 5=Others	
22. How often did you use your health insurance last year?	1=Once 2=Twice 3=Trist 4=More than 3 times 5=Never	
23. (a) In your opinion do you feel that community members in your area participates in the operation and management of CHF ? (b) Why.....	1=Yes 2=No	
24. How much did you pay for your CHF membership card ?	1=5000tsh 2=10,000tsh 3=15,000tsh 4=20,000tsh 5=More than 20,000tsh	
25. As a CHF beneficiary are you/or your friends on CHF involved in setting the membership fee?	1=Yes 2=No	
26. As a CHF user , what is your opinion on the membership fee?	1=Affordable 2=Expensive 3=Fair 4=Should be increased	
27. Would you recommend any or your friend/family to join the CHF?	1=YES 2=NO	
28. In your opinion what are challenges of CHF pre-payment scheme?	1=CHF management 2=Lack of drugs 3=Lack of laboratory services 4=Lack of ability to pay the health premium 5=Others.....	

D: Community perception on CHF

Write an appropriate answer, use the words from the brackets (NOTE: 1. SD=Strongly Disagree, 2.D=Disagree, 3.N=Neutral, 4. A=Agree, 5.SA=Strongly Agree)					
	1	2	3	4	5
29. CHF has improved the access to health services.					
30. CHF has increased availability of health services.					
31. Community members are informed on operation of CHF					
32. A family health is secured if they have CHF					
33. Most of the households rely on their families for health expenditure					
34. Most of the households are unable to pay their health insurance before harvesting season.					
35. For a person to be health secured must have CHF card.					
36. CHF is a community based health insurance that benefits community members.					
37. CHF insurance membership fee is reasonable in relation to the health services provided.					
38. Quality of health services is one of the challenges facing the CHF.					

D: Community Involvement /Ownership

39. (a) Have you attended any CHF meetings in your area?

(b) If yes what discussed in the meetings?

40. Do you know to whom you can voice complains or suggestions regarding the CHF, or use of CHF funds?

41. Do you think the community is adequately informed about operation and progress of CHF?

42. What should be done in order to improve the CHF membership enrollment and retention?.....

43. Are you satisfied with health services you receive at the facility through your CHF membership? 1=yes , 2= No (Circle)

why?.....
.....
.....

44. Has your CHF membership improved your social or economic life in any way?

1=Yes, 2=No

How?.....
.....
.....

Thank you for your time and cooperation!!!

Appendix 2: Showing Interview schedule with Health facility in charges

Date of Interview:

Name of facility:

A. Health Services

1. What health services does this facility provide?
2. Do you have a fee schedule for these services –can I see it?

B. Financial Management and Accounting

3. Please provide for 2006-2010 the following information

- Total enrollment in CHF
- Premiums collected
- Use fees collected
- Total clients –utilization
- Number of patients exempted
- Budget for the facility

4. What are the different sources of funding for this health center /dispensary?
5. How are CHF membership fees and user fees established?
6. Have the fee changed since the implementation of CHF user fee in 2006?
7. What are the procedures at the village and facility level for collecting, recording and managing funds collected through CHF membership contributions and user fees?
8. Who decides how the CHF money is spent? What input do health providers at this facility provide for the ward health plans?
- 8 a. (If not answered) Does the district (DMO) purchase CHF goods and services on behalf of the wards (to take advantage of bulk purchasing)?
9. How does the CHF money get back to the ward and facility level for the purchase of small and unique goods and services, such as kerosene or facility maintenance?
- 9a. Who decides how much can be spent on ward and facility-specific goods and services?
10. Is there a separate bank account for each facility at the district level?
11. How are CHF expenditures recorded and tracked at the facility level?
- 11a. Is the budget prepared and expenditures compared against the budget?
12. What do you do if someone is ill and cannot pay? Does that happen often?

C: CHF Membership and Members characteristics

13. Why did the health facility decide to participate in the CHF program?
14. When can the community members join the CHF? How do they join?
15. Have you noticed any particular differences between CHF members and non-members? Do CHF tend to be of particular socio-economic group or in poor health?
16. Do members tend to come to the facility more?
17. Do you think people share cards? Do you think that is okay? What can be done to prevent this?

D: Supervision and Monitoring

18. Has the DMO visited this site since it decided to participate in the CHF?
19. What was the purpose of the visit?
20. What was done by the DMO during these visits?
21. What is in cases of financial irregularities of CHF funds? Have you had these problems?

E: Drugs and Medical supplies.

22. Do you experience drugs shortages on regular basis?
23. Are CHF funds used to purchase drugs and related supplies?
24. Has the implementation of the CHF had impact on the availability of drugs?
25. Has the implementation of the CHF had impact on the availability of essential medical supplies?

F: Staff attitudes towards CHF

26. Do you know why CHF was created?
27. What do you think of the CHF?
28. How do you think the CHF could be improved?
29. Do you hold meetings with the community to discuss CHF issues? When was the last meeting? What was discussed?

G: Promotion and Marketing of CHF

30. What role does the death center/dispensary play in the promotion and marketing of the CHF?
31. Does the health center/dispensary have a particular marketing strategy for the CHF?
32. Do you think more can be done to increase knowledge and utilization of the CHF?
33. Why do people stop using their insurance?
34. What could be done to improve the situation, to ensure retention of enrolled members?

Thank you for your time and cooperation!!

Appendix 3: Guiding questions for Focus Group Discussions on Determinants of CHF membership drop out in Lindi District council

Number of focus group participants:

A. Utilization of Health services

1. Where do you go for health services? How often did you attend the dispensary /health center last year?
2. Do you tend to go to the dispensary /health center more or less frequently now that you are a CHF member?
3. Do you get good treatment at the facility?

B: Knowledge of the Community Health Fund (CHF)

4. What are the sources of CHF information in your community?
5. Can you please describe what the CHF is? How does it work? What are the costs and benefits?
6. Do you know why the CHF was created y the Ministry of Health?
7. Why did you join the CHF?
8. Where can you get health services for no fee with your CHF membership card?
9. Are all services covered by the CHF? What services are covered?
10. Do you know how the money collected from CHF membership contributions is used?
11. Do you know about the CHF exemptions policy and procedures? If yes, how does the exemption system work?
12. Why do you think people are stopping using their health insurance?

C: Attitudes towards the CHF

13. What do you think about the CHF? Do you think it is a good plan?
14. Do you think the CHF has had effect on the supply for the drugs or quality of health services at the health center/dispensary? In what way?
15. Can you explain what insurance is and how it works? (Probe for understanding of risk pooling?).
16. Does the CHF premium that you pay over the costs of the health services you receive? Is that okay?
17. Have you heard of people sharing their cards with their relative or neighbors?
18. Is that accepted by the community? Do you think it is okay?

D: Community Involvement /Ownership

19. Have you attended any CHF meetings?

19a If yes, what was discussed in the meetings?

20. Do you know who can voice complaints suggestions regarding the CHF, or the use of CHF funds?

21. Do you think the community is adequately involved in the management of the CHF?

22. Do you have any suggestions on how to improve the CHF?

E: Promotion and Marketing of the CHF

23. Do you encourage other members of the community to participate?

24. Has the religious or village leaders encouraged community members to join?

25. Do you think that the health providers at the health center/dispensary support the CHF and encourage patients to join?

Appendix 4: Guiding questions during Exit Interview with patients**Village:****Name of Health Facility:****Name of the patient:**

1. Are you currently using the CHF scheme?
2. How long have you been a CHF member?
3. How many members does your insurance cover?
4. When did you start using the CHF?
5. How many times have you/ or household member used the CHF card this year?
6. Are you satisfied with the health services you received at the facility?.Why?
7. What do you see are the main challenges in the CHF scheme?
8. What do you perceive to be benefits from your CHF membership card?
9. How did you get the information about the CHF?
10. Why did you join the CHF membership scheme?
11. What would you recommend to be done so as to improve and strengthen the CHF scheme?