

**OUTCOME OF COMMUNITY HEALTH FUND (CHF) ON  
MEMBERS' ACCESS TO HEALTH CARE:  
A CASE OF SOKOINE UNIVERSITY OF AGRICULTURE (SUA)**

**OUTCOME OF COMMUNITY HEALTH FUND (CHF) ON  
MEMBERS' ACCESS TO HEALTH CARE:  
A CASE OF SOKOINE UNIVERSITY OF AGRICULTURE  
(SUA)**

**By  
Doris Ludger Kajimbwa**

**A Dissertation Submitted in Partial Fulfillment Requirements for the Award of  
Degree of Master in Public Administration of Mzumbe University – Main  
Campus  
2015**

**CERTIFICATION**

We, the undersigned, certify that we have read and hereby recommend for acceptance by Mzumbe University a dissertation **entitled outcome of Community Health Fund on members' access to health care: The case of Sokoine University of Agriculture**, in partial/fulfillment of the requirements for award of the degree of Master in Public administration

Signature

.....

Dr. Gustav Elias Kunkuta (PhD)

Major supervisor

Signature

.....

Internal examiner

Signature

.....

External examiner

Accepted for the Board of Public Administration and Management

Signature

.....

Dean of school of Public Administration and Management

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

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## **ACKNOWLEDGEMENT**

The work could not have been possible without the support from a number of individual whom I would wish to acknowledge. My sincerely are to the most high God for giving me strength and power on performing this work. May his name be glorified and given honor always.

My gratitude goes to my supervisor Dr. Gustav Kunkuta (PhD) for his total commitment, opinions, suggestions, views and guidance, and professional inputs. All of these remain a permanent asset for further studies in future.

My sincere thanks are extended to the community of Sokoine University of Agriculture for their support during the time of data collection. My gratitude also goes to my family and friends for their great support, inspiration and encouragement offered to me during my study. May the Almighty God bless you all.

## **DEDICATION**

I dedicate this work to my family and siblings without forgetting my partner for his love and moral support.

## **LIST OF ABBREVIATIONS**

|        |   |
|--------|---|
| CHF    | Community Health Fund                                   |
| MoH    | Ministry of Health                                      |
| MoHSW  | Ministry of Health and Social Welfare                   |
| NHIF   | National Health Insurance Fund                          |
| SUA    | Sokoine university of Agriculture                       |
| SUACHF | Sokoine University of agriculture Community Health Fund |
| SUAHEP | Sokoine University of Agriculture Health Policy         |
| URT    | United Republic of Tanzania                             |
| WB     | World Bank  |
| WHO    | World Health Organization                               |

## ABSTRACT

The study investigated the *outcome of Community Health Fund (CHF) on members' access to health care*. It had two specific objectives: the assessment of the availability of health care services under Community Health Fund and to evaluate the quality of health care services provided to members. The study employed a case study design involving Sokoine University and Agriculture (SUA). Data collection involved multiple methods: questionnaire, interview and documentary review. The questionnaire organized were analyzed using descriptive statistics (computer software of statistical package for social science) and summarized in relevant frequency tables and percentages. Interview and documentary sources were reviewed and recurring on common themes related to outcome of CHF on members' access to health care. The major patterns and segments of the interview data were merged from larger themes that allowed conclusion on outcome of CHF to members' access to health care to be made. The sample size for this study included seventy five (75) respondents whereby sixty five (65) respondents were the questionnaire sample and ten (10) respondents were the interview sample.

Findings show that members of SUACHF have satisfactory access to quality health care through: (i) qualified and competent health providers, (ii) qualified medical equipment and have access to essential health care services including: (i) ambulatory service, (ii) maternity and child health care and (iii) diagnostic services since the introduction of SUACHF has improved the quality and availability of health care services. Basing on the findings, the study concluded that SUACHF has led to the improvement of the quality of health care services provided to the members of CHF and also it enabled the members to have access to curative and preventive health care services available at SUA health facilities.

The study recommends the management of SUACHF to: (i) Increase the number of the medical specialists, (ii) Improve the handling of confidential health status information of the members so as to improve the performance of SUACHF.

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Overview of the chapter**

This chapter presents an introduction and the problem setting. It includes background of the study, a statement of the problem, objectives of the study, research questions, and significance of the study, the focus of the study and limitations of the study. The organizational profile of the case study organization is presented first.

#### **1.2 Organizational profile characteristics of Sokoine University of Agriculture**

Sokoine University of Agriculture (SUA) is a public University established in July 1984 by a Parliamentary Act No 6, which was repealed and replaced by the Universities Act No 7, 2005 (Cap 195) and it also operates under Sokoine University of Agriculture Charter and Rules of 2007 (SUA Health Policy [SUAHEP], 2013). SUA comprises the main campus, Solomon Mahlangu campus, Olmotonyi training campus, Mazumbai forest reserve and constituent college (Moshi University College of Cooperative and Business Studies)( SUA- prospectus, 2013).

SUA has four mandates, which are: training, outreach, research, and consultancy. It offers training that leads to the award of diplomas, bachelors, masters and doctorates. SUA offers consultancy and outreach services in areas such as agriculture, forestry, natural resource management, veterinary, rural development, and information and communication technology (SUA, 2000). SUA's vision is to become a centre of excellence in agriculture and allied sciences and the mission being to promote development through training, research, and delivery of services. To achieve its vision and mission the University has a Corporate Strategic Plan (CSP) 2011-2020 (SUAHEP, 2013). The key element in the University's high performance is healthy staff.

Therefore, the improvement of health services to staff, students and the surrounding community is of paramount importance to SUA (SUAHEP, 2013).

### **1.3 Background to the study**

The world is facing challenges to provide health care to people, especially those who live in low and middle-income countries (World Bank, 1997). Many people in those countries lack access to quality and affordable health services, largely because of weaknesses in the financing and delivery of health care (Morrisson, 2002). Shrinking budgetary support for health care services, inefficiency in public health provision, unacceptably low quality of public health services, and the resultant imposition of user charges led to the emergence of many community based health insurance schemes (CBHIs) in different regions of developing countries, particularly in sub-Saharan Africa (Wiesmann, 2001, Preker, 2001, International Labour Organization [ILO], 2002).

These schemes were expected to involve the direct payment of health services or health service inputs such as drugs as well as to be medical aid schemes (Criel & van Dormael, 1999). Elsewhere, particularly in regions of Asia and Latin America, community based health initiatives have come about independently and as part of income protection measures or to fill the void created by missing institutions such as Self-Employed Women Association (SEWA) health insurance in India and health insurance provided by Grameen Bank in Bangladesh (Peters, 2002).

In the period following the independence of the majority of African states including East African countries, free health care was a constitutional right and was supposed to be entirely tax-financed (Jutting, 2000). According to Jutting (2000), this became unsustainable and in the 1970's and the 1980's and as a result user fees were progressively introduced at the time and point of use due to the economic depression. Later, the limitations of user fees were well-established as they constituted a barrier to access to health care and were a cause of exclusion from decent health care, especially among poor populations (Basaza, 2001). However,

Save the children (2005) argued that user charges can generate vital resources at the local level and help provide good quality service.

After independence in 1961, the Tanzanian government adopted free health care provision as the fruit of independence to its citizens (Ministry, of Health, 1996) and also to achieve the goal of health care access to all (Mtei, 2012). The adoption of free access of health care led to the banning of the private-for-profit medical practice in 1977 (Devadasan, 2007). In 1980s, Tanzania went through a severe economic crisis, which adversely affected the management and financing of basic services including health care services (Wange, 1998). This situation spurred the World Bank to advocate the need to liberalize the health sector since the sector was faced with underfunding that affected the quality and provision of health care services (World Bank, 1993). The resource constraint led to the shortage of medicines, equipment, medical supplies and low staff morale (Ministry of Health [MoH], 1994). During this period, the government was the key provider of free health care services, whereas private health care provision was nearly non-existent except for a few faith-based health care facilities (COWI, 2007).

To address these problems, the health sector was appraised in 1993 (Health Sector Strategy Note, 1993) and as a result in 1994, a proposal for health sector reform was developed (MoH, 1994). Specifically, the proposal aimed at improving the quality and quantity of health services together with fostering accessibility to health care services (COWI, 2007). The liberalization of health sector accelerated the introduction of user fees in early 1990s. The intention of introducing user fees was to generate additional revenue to facilitate improvement in availability and provision of quality health care services (MoH, 1994). The user fee entailed the beginning of commercialized health care provision. The Commercialization of health care refers to health care provision and access through a fee based market system whereby all consultations and treatments, at health facilities required payment mainly through out of pocket payment system (Save the Children, 2005).

In order to promote equity in accessing health services, following the introduction of the user fee, equity-seeking mechanisms were introduced to protect the poor and other vulnerable groups who are unable to pay the fees (Tenkorang, 2001). It was also meant to cushion the loss of income and wealth due to large unexpected medical expenditures amongst other groups (Peters, 2002). In other words, these mechanisms aimed at avoiding exclusion and enhancing equity in accessing health care services (Mamdani & Bangser, 2004). The initiatives included the introduction of the Community Health Fund (CHF) in 1996 and establishment of a National Health Insurance Fund (NHIF) in 2001 as the cost sharing systems (Majinja & Kida, 2014). Maliyamkono and Mason (2006) argued that, at the time cost-sharing was introduced, four principle objectives were announced:

- i. To generate additional revenue for health facility operations with all revenue being retained at the facility
- ii. To increase quality of health services in government facilities
- iii. To strengthen the referral system and rationalize utilization of health services.
- iv. To improve equity and access to health services.

The authors further added that, in developing a cost-sharing programme, the government wanted to build protectionist mechanisms that will ensure access to the poor and the medically needy.

Different studies for instance Burns and Mantel (2006) and Mtei (2007) revealed that, Tanzania, like many other countries in developing countries faces the same pressures of a tight public health care budget as a results financing mechanisms have been added including the introduction of prepaid insurance schemes such as the National Health Insurance Fund (NHIF), Community Health Funds (CHF) and micro health insurance schemes for instance National Social Support Fund (NSSF) to improve health care services delivery (Mtei and Mulligan, 2007).

In Tanzania, the Community Health Fund (CHF) project was launched on a trial basis in 1996 in the Igunga district as part of the countrywide World Bank Health

and Nutrition activities. The scheme was designed to address both a serious health financing gap and a poor quality of service while maintaining the government's commitment to equity of access (Asfaw, 2007). Also the scheme was identified as a possible mechanism for granting access to basic health care services to the population in the country (Matei, 2007). A study by WHO (2003) found that, some community health insurance schemes gradually took a greater role on ensuring availability of health services to its members as in the case of Mutual Society for Health Care in the Informal Sector (UMASIDA) scheme in Tanzania. a health insurance scheme owned and operated by a group of cooperatives of self employed in Dar Es Salaam, Tanzania. The scheme provided the members with access to health care services including: maternal and child health services, adequate laboratory services, provision of health education and occupational health and access to essential drugs. Also Roney (2002) stated that the Community health scheme namely Health Plus Community Scheme (OHCPS) in the Philippines led the members of the scheme to access ambulatory and inpatient care, prescribed drugs and basic ancillary services. The author further noted that, hospital-based diagnostic and therapeutic services were also under the scheme. Therefore, community health fund was envisaged to reduce in large portion the problem of access to health care such as poor quality of health care services and unequal distribution of resources in health care services, to enable access to essential health care services and to improve health financing in Tanzania (MoH, 1999).

#### **1.4 Statement of the problem**

The government of Tanzania has initiated a number of strategies to increase access to health care of its citizens in an environment with a shrinking budget for the health sector and economic decline (Msuya, 2001). One of such initiatives has been to come up with a mechanism through which households and individuals can share community health risks. This was done by introducing a community- based health insurance scheme known as Community Health Fund (CHF).

The government of Tanzania introduced CHF so as to ensure that people are easily accessible to health services (Msuya, 2004) that are reliable, affordable and of quality by creating a sustainable financial mechanism. This is to facilitate the well being of the people. The scheme is designed to address both, a serious health financing gap and a poor quality of health service while maintaining the government's commitment to equity of access.

However, there continues to be lack of information on whether CHF has achieved its intended objectives particularly ensuring and improving members' access to health care services. Therefore this study aimed at investigating the outcome of CHF on the quality of health care and availability of health services to its members.

### **1.5 Research gap**

Research on CHF has already been done by scholars such as Msuya (2001), Musau (2004) and Milligan and Matei (2007). However, most of them concentrated on the enrollment of the people and the operation of CHF, giving less weight on the outcome of CHF to the beneficiaries' access to health care services. Thus, this study aims at filling the gap by investigating the outcome of CHF on members' access to health care.

### **1.6 Research objectives**

This section presents the research objectives of the study. The general objective is presented first while specific objectives are presented thereafter.

#### **1.6.1 General objective**

The general objective of this study was to investigate the outcome of CHF on members' access to health care. This study assumes that access to service is a function of availability and quality of services (See conceptual framework of the study in the next chapter).

### **1.6.2 Specific objectives**

The specific objectives of this study were:

- i. To assess the availability of health care services under CHF.
- ii. To evaluate the quality of health care services provided to CHF members.

### **1.7 Research questions**

- i. What health care services are available and provided to CHF members?
- ii. How satisfied are the CHF members with the quality of health care provided to them?

### **1.8 Significance of the study**

The study is significant in view of the following:

- i. The study findings provide information to the management of SUACHF on more strategies to be taken to improve the performance of SUACHF.
- ii. The study contributes toward understanding the outcome of CHF on members' access to health care.
- iii. The study is expected to be used as reference to other researchers who will be interested in conducting research concerning CHF and its related issues.
- iv. The study improves the knowledge of the researcher on the performance of CHF through a review of various literatures.

### **1.9 Limitations of the study**

The study experienced the following limitations ;

- i. The unwillingness of some respondents to provide requested information. To overcome, the researcher explained to the respondents the aim of the study and also provided assurance of the confidentiality of the information that would be obtained from them.

- ii. Not all respondents scheduled for questionnaire returned the questionnaires distributed to them. Only sixty five respondents returned the questionnaires. An approach used to address this limitation, the researcher used the returned questionnaire as the study sample.
- iii. Insufficient time and budget constrains for conducting this study. To address these limitations the study focused only to SUA health centre.

### **1.10 Organization of the dissertation**

This dissertation is organised in five chapters. The first chapter presents an introduction and social economic characteristics of the study area, background of the study, statement of the problem, objectives of the research, research gap, research questions, significance of the study and the limitation of the study. The second chapter reviews theoretical and empirical literature focusing on Community Health Fund (CHF) and also the conceptual framework of the study. The third chapter discusses the methodology of the study. The fourth chapter presents data or findings/results and discusses the findings. Chapter five presents the summary of the study, conclusion and recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The review of literature is critical in any research work (Kombo & Tromp,2006) since it helps the researcher to familiarise with debates and understandings and also research on the theme under investigation. Information and understanding gained from literature review helped to sharpen the research objectives, questions, methodology and approaches to data analysis. The chapter is organized in three sections. The first section reviews the theoretical literature review, while the second section reviews empirical literature on the performance of CHF. The third section describes the conceptual framework of the study.

#### **2.2 Theoretical literature review**

This section reviews theoretical literature on Community Health Fund (CHF). It includes the following: the concepts of health, health care and community health fund, purposes of health care, the reforms of health care, the structure of health care in Tanzania, health caare financing systems, health financing system in Tanzania, objectives of CHF, goals and design of the CHFs, operation of CHF and strategies to make it work for communities including the poor and models of quality health care.

##### **2.2.1 Concept of health**

The world Health Organization (WHO) (2006) defined health as a atate of complete physical, mental and social well-being. Also, Huber (2011) stated that, health is the level of functional efficiency of a living organism as in humans it is the ability of an individual aor communities to adapt and self-manage when facing physical, mental or social challenges. Moreover, Shah (2014) observed that, there are different common health issues across the globe such as communicable and non-communicable diseases, malnutrition and bodily injuries.

The author added that the most common and harmful health issue is that a lot of people do not have access to quality remedies.

### **2.2.2 Concept of health care**

Health care is the prevention, treatment and management of illness and preservation of mental and physical well being through the services offered by the medical and allied medical professions (Medical dictionary, 2006). However, WHO (2010) pointed that, access to health care varies across countries, groups and individuals, largely influenced by social and economic conditions and health policies in place. Health care is conventionally regarded as an important determinant in promoting the general physical and mental health and well being of people around the world (WHO, 2014).

### **2.3 Health care financing systems**

Health care financing is among the key components of a functional health system (WHO, 2010). It is concerned with the mobilization, accumulation and allocation of finance to cover the health needs of the people (Carrin, 2002). Lekashingo (2005) elaborated out different methods of financing or supporting health services. These include: The general system of taxation which is used to finance governments and ministries of health, donor assistance, user fees and health insurance. Taxation is a compulsory monetary contribution to the states or country's revenue, assessed and imposed by the government on the activities, expenditure and privilege of individuals and organizations (Save the children, 2005). Busse and Gericke (2007) explained sources of general tax revenue: income and profit taxes, value-added and sales taxes and imported taxes. Hsiao and Heller (2007) added that general tax revenue financing is often tied to government owned and operated health facilities. Also, general tax revenues can also purchase care from private providers (Ravishankar, 2009).

Wagsaff and Van Doorslaer (2003) elaborated user fees as payments paid directly by patients for medical care and the expenditures are not reimbursable by insurers or other third parties. These includes: charges for service, co-payments, deductible for doctor visits and prescription medications. WHO (2007) argued user fees have the worst impact on the poor's access to health care services since they fall disproportionately at the time of greatest need and it is the cause of overall impoverishment. Also user fees generate or deepen the poverty of those who are already poor (Ensor & Pham, 2010). This comes the time when the poor are in need of health care services and are needed to pay for the service. The service may be expensive compared to the ability of the needy person to pay for the services through user fees.

Many developing countries rely on donor assistance (foreign aid) as a financing source for health sector (Preker & velenyi, 2007). Donor assistance has taken several forms among which are donor projects, Global Health Initiatives (GHIs), programme support and budget support (Ranvishankar & Gubbins, 2009). Several issues have been raised regarding the donor assistance, including projects being generally unsuccessful due to the fact that the assistance comes with the conditions that are impossible for the dependent countries to accomplish or follow and most of the projects do not reach the poor people in rural areas, earmarked funding that may not be well aligned to health priorities of recipient countries (Shiffman, 2005) as this means that, the priorities of health that are set by donors are not the same as for the recipient countries, and poor accountability (Sanders & Chopra, 2005). Donors contributing directly to the national budgets often require that governments increase their social sector spending, a condition often unfulfilled. Many GHIs are centered on specific interventions and funding-specific inputs (Cassel, 2005).

### 2.3.1 Health financing system in Tanzania

In Tanzania, the emerging goal of health financing system is to provide universal coverage and social health protection (Health Financing Policy Note, 2010). Following the Arusha Declaration in 1967, health care services were provided free (MoH, 2003). This led to a massive expansion of health services particularly in the rural areas with a corresponding expansion of training facilities for health workers.

However, in 1970s-80s, provision of health care services was affected by the economic recession (Lankers, 2008). This led the health sector to experience inadequate allocation of resources leading to deterioration of health care services. In addressing this shortfall the government introduced cost-sharing in 1993 and thereafter, other financing options such as Community Health Fund (CHF) and National Health Insurance Fund (NHIF) emerged (URT, 2003). Table 1.1 presents health care financing from 1967 to date.

**Table 2.1 Chronology of Tanzanian health financing system**

| Year               | Health financing system  |
|--------------------|--|
| 1967-1993          | <ul style="list-style-type: none"><li>• The central government</li></ul>         |
| 1993               | <ul style="list-style-type: none"><li>• Cost sharing</li></ul>                   |
| 1996               | <ul style="list-style-type: none"><li>• Community Health Fund</li></ul>          |
| Since 2001 to date | <ul style="list-style-type: none"><li>• National Health Insurance Fund</li></ul> |

Source: Matei (2007, p. 67).

According to National Health Policy (2003), health financing sources in Tanzania include: (i) the government (as the main financier) which finances health services through its annual budget (ii) local governments finance health services through

council tax collection (iii) Voluntary Agencies and Faith Based Organizations finance these services through their own funds and service charges though the government continues to provide subsidies to these organizations including the use of performance related contractual arrangements (iv) Community contributions including user fees, community health fund, health insurance schemes and private organizations.

These health financing sources make health sector to raise funds for financing health care services as WHO (2000) supported that health financing provides resources for the operation of health systems. As the result, the community especially poor people are able to access health care through cross subs diction.

## **2.4 Concept of community health fund**

Community health fund (CHF) is a voluntary pre-payment scheme, which offers a client (household) the opportunity to acquire a health card after paying contribution. A household can be an individual or a family (URT, 2001). Criel and Dormael (1999) defined CHF as a common denominator for voluntary health insurance schemes, organized at the level of the community, that are labeled alternatively as mutual health organization, medical aid societies, or micro-insurance scheme. Carrin (2005) indicated that, the common characteristic is that they are run on a non-profit basis and they apply the basic principle of risk sharing.

### **2.4.1 Goals and design of CHF**

Shirima (2006) described the goals and design of the CHFs. The author argued that, the primary goal of CHFs is to ensure greater security of access to health care and also provides supplementary means of financing health care and promote financial sustainability. The fund enhances access to quality of health care by improving drug availability, medical equipment and supplies in health care facilities. The scheme also provides stimulus to health care providers in increasing their efficiency in delivering health care services through various incentive means including training.

The embedded goal in community participation is to empower the communities in taking health care decisions.

The author also argued that, the CHF's are designed as Community-Based Health Insurance Schemes (CBHIs) whereby their management is under control of the communities and the government remains at providing guiding policies and they operate as a card system with an entitled benefit package for the members who are defined in terms of households (URT, 2001).

The management of CHF's selects dispensaries as well as health care centers to contract in providing health care services to its members.

Similarly, Shaw (2002) added that CHF aims at improving health outcomes through better access to quality services, improved risk protection through prepayment, and behavioral change in the form of improved responsiveness of providers to the clients. The author further explained that CHF is expected to contribute to improved efficiency, equity, quality and financial sustainability in the financing and provision of health services. This shows that, the main goals of CHF is to improve the access and quality of health care to the members especially those living in rural and remote areas.

The inception of CHF to the community was meant to mobilize financial resources from the community to provide health services to enable the community access health care services (URT, 2001). According to the CHF Act (2001), every members ' household shall be entitled to medical services of its choice which have been pre-paid for at a pre-selected health care facility. Several studies showed CHF has facilitated access to health services (Mulligan, 2007). Musau (2002) showed that, CHF increased the utilization of health services among the CHF members. Similarly, Shaw (2002) revealed that, CHF has helped to purchase different health facilities such as microscopes, reduced drug stock-out and improved availability and supply of important equipments in many hospitals.

#### **2.4.2 Quality health care with CHF**

The quality of health care in community health insurance is a factor to be considered since community health fund was introduced with the objective to provide quality health services through a sustainable financial mechanism (Mushi, 2007). It is expected to assure access to quality health services, quality facilities, quality commodities especially drugs (URT, 2001). An evaluation done by Criel, Barry and Von Roenne (2002) on Maliando community health insurance in Guinea revealed that quality of care was mentioned 383 times by the members of the scheme as an important factor in the population's attitude towards the scheme. Most of the time, the members referred to rapid recovery, good health personnel, good drugs and a nice welcome at the participating health facilities as the most important features of quality.

However, Buttel (2007) suggested six elements/components of quality in health care. These include: i) Safety- avoiding injuries to patients from the care that is intended to help them, (ii) Effective- providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse, respectively), (ii) Patient centered- providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions, (iii) Timely- reducing waits and sometimes harmful delays for both those who receive and those who give care, (iv) Efficient- avoiding waste, including waste of equipment, supplies, ideas, and energy and (v) Equitable- providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

Moreover, WHO (2006) aligned with Buttel (2007) but added two more components of quality health care by stating that quality health care is that which is: (i) Acceptable/patient-centred- delivering health care which takes into account the preferences and aspirations of individual service users and the cultures of their

communities and (ii) Accessible- delivering health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need. The stated aspects were indeed considered and some used to construct the conceptual framework of this study to assess members' access to health care SUACHF.

## **2.5 Community health fund in Tanzania**

This section reviews literature of Community Health Fund (CHF) in Tanzania and its objectives.

In Tanzania as indicated in the previous chapter, Community Health Fund (CHF) started in 1996 with a pilot scheme in Igunga district, which was later, expanded to other councils with the expectation of covering the whole country (MoH, 1999). The scheme was identified as a possible mechanism for granting populations in the rural areas access to basic health care services. As such, its primary aim was to raise additional funds to improve access to health care of the poor and vulnerable groups. MOH (1999) added that the CHF is designed to finance a basic package of curative and preventative health services at dispensaries and health centres. However, Burns (2006) argued that, some local government authorities, such as Hanang, Igunga, Mwanga and Rombo, have gone beyond the CHF coverage and extended the coverage of CHF benefits to referral hospitals.

CHF members are told to choose the provider (private or public) from which the household will be accessing health care at the beginning of the year (MoH, 1999). Moreover, Dominic (2005) added that, the choice is made every year and members are not allowed to switch to different providers within the same year. Although Burns and Mantel (2006) criticized the scheme that, in most local authorities, access for profit private health services was still limited and some faith based organizations did not accept CHF cards since they had no service agreement with CHF.

However, Msuya stated that, the general objective of the CHF scheme is to enable all community members to have access to reliable and effective health care by creating a sustainable financial mechanism. According to the Community Health Fund Act of 2001, the objectives of the community health fund are: to mobilize financial resources from the community for the provision of health care services to its members, to provide quality and affordable health care services through sustainable financial mechanism and to improve health care services management in the communities through decentralization by empowering the communities in making decisions and by contributing on matters affecting their health.

## **2.6 Structure of health care in Tanzania**

After independence, Tanzania developed a national health system that committed itself to provide population with access to health services so as to meet the health needs of the rapidly growing population (Kwesigabo, 2012). According to the National health Policy (2003), the Tanzania mainland health system is organized in a referral pyramid starting from the village level, where there are village health posts; ward level, where there are community dispensaries; divisional level, where there are rural health centres; district level, where there are district or district designated hospitals; regional level, where there are regional hospitals; zonal level, where there are referral/consultant hospitals and national level, where there are national and specialized hospitals (see figure 2.1).

**Figure 2.1 Structure of health care in Tanzania**



Source: Ministry of Health (2008, p.29)

At the National level, the ministry of health administers and supervises the national hospitals, consultant referral hospitals, special hospitals, training institutions, executive agencies and regulatory authorities, at the regional level, provision of health services is vested to the regional administrative secretary with technical guidance of regional health management team and at the district level, management and administration of health services has been devolved into district through their respective council authorities, health service boards, facility committees and health management teams.

## **2.7 Models of quality health care**

### **2.7.1 Donabedian**

Avedis Donabedian, a physician and health services researcher at the University of Michigan, developed the quality care model known as the Donabedian quality care framework in 1966 (Frenk, 2000). The Donabedian model is a conceptual model that provides a framework for examining health services and evaluating quality of care (Sundaram, 2007). According to the model information, quality of care can be accessed from three categories; structure, process and outcome (Donabedian, 1988). Structure implies all the factors that affect the context in which care is delivered. This includes the physical facility, equipment, and human resources, as well as organizational characteristics such as staff training and payment methods. These factors control how providers and patients in a healthcare system act and are measures of the average quality of care within a facility or system. Structure is often easy to observe and measure and it may be the upstream cause of problems identified in process (Donabedian, 2005).

Process is the sum of all actions that make up healthcare. These commonly include diagnosis, treatment, preventive care, and patient education but may be expanded to include actions taken by the patients or their families. Processes can be further classified as technical processes, how care is delivered, or interpersonal processes, which all encompass the manner in which care is delivered. (Donabedian, 1980). However, Donabedian (2003) added that, the measurement of process is nearly equivalent to the measurement of quality of care because process contains all acts of healthcare delivery. Information about process can be obtained from medical records, interviews with patients and practitioners, or direct observations of healthcare visits.

Outcome contains all the effects of healthcare on patients or populations, including changes to health status, behavior, or knowledge as well as patient satisfaction and health-related quality of life (. Outcomes are sometimes seen as the most important

indicators of quality because improving patient health status is the primary goal of healthcare. However, accurately measuring outcomes that can be attributed exclusively to healthcare is very difficult as stated by Donabedian (2003).

Andersen and Rice (2007) argued that, although the model is widely recognized and applied in many health care related fields, the Donabedian Model was developed to assess quality of care in clinical practice. However, Brien (2008) added that, Donabedian's model can also be applied to a large health system to measure overall quality and align improvement work across a hospital, group practice or the large integrated health system to improve quality and outcomes for a population.

### **2.7.2 Bamako initiative model**

The Bamako initiative (BI) is a model that was developed by UNICEF and the WHO in 1987 at a conference of African Ministers of Health, which was held in Bamako, Mali (Velley, 2006). The model was designed to promote universal accessibility to primary health care (PHC) and to increase the availability of drugs for sub-Saharan countries (Hardon, 1990). The BI identifies four components for quality health care, these include; effectiveness, efficiency, sustainability and equity. Efficiency considers the delivering of health care in a manner which maximizes resources use and avoids waste, effectiveness implies delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need, equity means delivering health care which does not vary in quality because of personal characteristics such as gender, race, ethnicity or socio-economic status. In the Bamako initiative experience the bulk of resources was invested in basic health units to improve availability, quality and affordability of services.

## **2.8 Empirical literature review**

This section reviews some selected research work related to CHF. The review for this study covers the national studies and regional studies focusing on West Africa.

### **a) National studies**

A study carried out by Kiwara and Kapinga (1990) on *impact of CHF on service quality in Igunga and Singida* portrayed drastic improvement on service quality in terms of availability essential drugs and basic diagnostic services since the introduction of CHF. It has acted as a basic financial mobilizing tool to assist in the purchase of sufficient amounts of drugs and some basic diagnostic tools. However, despite such improvements, the districts continued to be face with some common problems including low morale among the staff and long distances members had to travel to and from the facilities.

Msuya (2004) investigated *impact of community health insurance schemes on health care provision in rural Tanzania*, and found that CHF has improved access to health facilities for the poor. The study established that members were more likely to seek health care from formal health care providers as opposed to non- members; CHF membership also reduced the use of traditional healers as well as alternative medical care as self medication especially among the poor. The study concluded that membership to the CHF reduced the risk of households selling their assets to raise money for medical treatment during disease outbreaks.

### **b) Regional: Experiences from West Africa**

Adinma and Nwakoby (2010) conducted study on *community based health insurance: benefits to uptake and intergration* in Nigeria focusing on members of Anambra community health insurance. The study found that the scheme mobilized the community via a health committee which oversaw refurbishment and re-equipping of the publicly owned health centre, sourced drugs and employed or re-deployed health personnel. The study also revealed that the scheme focused on maternal and child health care.

Filmer's (2011) study on *the benefit package in community based health insurance* in Ghana whereby the findings revealed that, the benefit package covered in the scheme included preventive, curative and promotive health services. The services were delivered by health providers within the community registered with the scheme (including primary health centers, licensed patent medicine sellers, pharmacies and laboratories). The study concluded that the benefit package covered was comprehensive including all inpatients and outpatient services and emergencies but the inpatient care will be limited to 45 days per year in a standard ward. The benefit package on partial terms covered only a few diseases that were most common in the area including malaria, typhoid, diarrhea, TB and hypertension. The authors concluded that, Enugu community based insurance, ensured the coverage of essential health care services.

## **2.9 Conceptual framework**

Conceptual framework is the system of concepts, assumptions, expectations, belief and theories that support the study (Milles & Huberman, 1994). This section describes the conceptual framework that guided this study. It clarifies both the independent and dependent variables examined to assess the outcome of CHF on members' access to health care.

Based on the Donabedian model discussed in this chapter, two factors are used to assess the outcome of CHF on members' access to health care: the availability of health care services under CHF members and the quality of health care provided to CHF members. These factors are explained below:

### **A. Availability of health care services under CHF**

Availability means both presence and members being able to use or obtain the services. In this study availability implies the presence and the CHF members being able to get respective medical services. The availability of health care services under CHF was assessed through the following indicators:

**i. Availability of diagnostic services**

These are medical services that are practiced by the medical practitioner. They include: the diagnosis of blood, radiology and diagnostic imaging. The study will assess the kind of diagnosis services that is available and provided to the members of CHF .

**ii. Availability of ambulatory services**

Are the medical services which provide transport alongside first aid care, to those in need of urgent medical care, with the goal of satisfactorily treating the presenting conditions, or arranging for timely removal of the patient to the next point of definitive care In this study, ambulatory service was assessed by establishing whether this service was available and provided to members of CHF since CHF covers curative and preventive health services.

**iii. Availability of maternity and child health care**

This is the health service that is provided to mothers (women in their child bearing age) and children. This care is provided to women before (during pregnancy), after delivery (childbirth). It encompasses: family planning, antenatal care, labour and delivery care, emergency obstetric care and new born care in order to reduce maternal morbidity and mortality. This study assessed whether this service was available to CHF members and their families.

**B. Quality of health care under CHF**

Quality health care implies the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. This incorporates that, desired health outcomes are those sought by the recipients of the services and current professional knowledge refers to ever-changing technical standards of care. The quality health care in this study was assessed by the following indicators:

**i. Presence of adequate qualified health care providers**

Health care providers are persons who deliver health care to patients at health care facilities. Using this indicator the study assessed the following categories necessary to quality health care provision: surgeons, specialists, medical doctors, nursing officers, laboratory technicians and pharmacist.

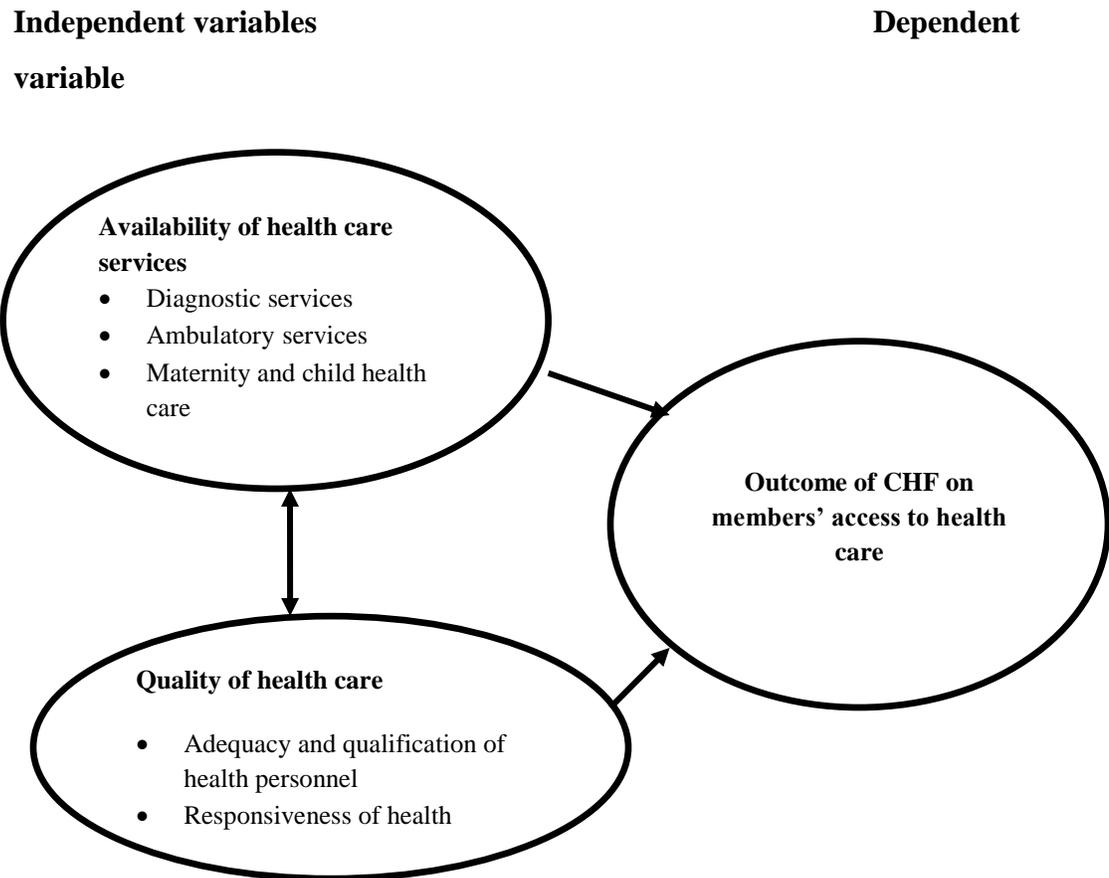
**ii. The responsiveness of health providers**

Refers to whether the health care facility treats people to meet their expectations. This includes a caring patient's handling characterized by patients' confidentiality of health status, patient-centeredness, respecting patients' individual needs and respect of their culture and traditions. In this study, responsiveness of health providers was assessed through patients' satisfaction with their handling by health care personnel and patients' perception on whether health care services met their expectations in terms of improvement of health conditions.

**iii. Adequacy of medical equipment**

Medical equipment are instruments that are designed to aid in the diagnosis, monitoring or treatment of medical conditions. These include: diagnostic equipment, treatment equipment, life support equipment, medical monitors, and medical laboratory equipment. This study examined both the availability of key medical equipment and whether they were functional.

**Figure 2.2 Conceptual framework for a study on the outcome of CHF on members' access to health care**



Source: Author (2015), based on literature reviewed.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discusses methodology that was used to conduct this study. It includes the research design, the study area, the study population, study sample and sampling techniques, data collection methods and data analysis process. The chapter also describes approaches used to ensure validity and reliability of the study and also ethical considerations observed during the research.

#### **3.2 Research design**

Kothari (2004) defines research design as the arrangement of conditions for collecting and analyzing data in a manner that aims to combine relevance to the research purpose with economy in procedures. It is a plan on how the data will be collected, analyzed in relation to the research objectives and questions. There are many types of research designs: experimental design, case study, longitudinal design and survey design, inter alia (Kothari, 2004). This study employed multiple case study design involving SUA health centre facility.

Case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context and when the boundaries between the context and phenomenon investigated is not clear (Yin, 2003). Adam (2007) argued that a case study is designed to investigate a particular problem in-depth by examining variables that are relevant to the study. The selection of a case study design in this study was based on a number of considerations: First, case study enabled an investigator to examine the outcome of CHF on members' access to health care by capturing real situations as experienced by the members of CHF at SUA health centre facility. Second, it provided an opportunity to study in depth the outcome of CHF on members' access to health care within a limited time scale and as noted by Gravetter

& Forzano (2009) a case study design potentially saves cost of the research and time restrictions within which the researcher must operate.

### **3.3 Study area**

The study was carried out at Sokoine University of Agriculture (SUA). This place was selected because of the following: presence of active CHF operations, the possibility of getting support in data collection process due to the fact that SUACHF has been in operation since 2007 and it has been serving a large population of clients, which includes employees, their dependants and students, accessibility of the area and established contacts with managers of SUACHF. These considerations made SUA to be an ideal place to carry out the study. Silverman (2006) advises researchers to avoid places that are providing no possibility of accessing data.

### **3.4 Population of the study and sample**

This section describes the study population and sample. Study population is presented first.

#### **3.4.1 Study population**

Study population is a group of subjects or objects of interest for an investigation (Tayie, 2005).

**Table 3.1 Study population**

| <b>Category</b>    | <b>Types of information provided</b> |
|--------------------|--------------------------------------|
| Doctors and nurses | Interview                            |
| Members of CHF     | Questionnaire                        |
| Hospital secretary | Interview                            |

Source: Author (2015).

The targeted population of the study was members of CHF. The selected population was considered to be relevant to the study since the members of CHF were likely to provide information with regard to the outcome of CHF in the delivery of health care services. Data in Table 3.1 summarizes the study population.

### 3.4.2 Study sample

The study sample for the study included categories of respondents (see Table 3.2).

**Table 3.2 Study sample**

| <b>Respondent</b>  | <b>Study sample</b> | <b>Data collection methods used</b> |
|--------------------|---------------------|-------------------------------------|
| Employees          | 20                  | Questionnaire                       |
| Students           | 45                  | Questionnaire                       |
| Hospital secretary | 01                  | Interview                           |
| Doctors            | 04                  | Interview                           |
| Nurses             | 05                  | Interview                           |
| Total study sample | 75                  |                                     |

Source: Author (2015).

Two types of study samples were employed. First was questionnaire sample which included 65 respondents who were the members of CHF. The selection of 65 questionnaire respondents was based on the rough guide criterion that suggests a sample of at least 30 respondents is sufficient to carry out statistical analyses (Rees, 1989). This sample was also consistent with opinion survey that requires the use of large sample in order to facilitate some generalization of the findings (Kothari,

2004). A specific formula was not used to select the questionnaire sample because doing so, was likely to lead to a very large sample that would be beyond the means that is resources available to the investigator.

The second study sample was the interview sample that included ten respondents that included: the hospital secretary, resident doctor, clinical doctors and nurses. The interview sample was determined through the saturation principle whereby the interviews continued until the point where additional interviews provided no new information or insights on the topic under investigation (Siegle, 2002). The selection of this sample was in line with qualitative research that works with small samples because its purpose is to gather detailed information on the theme of the study (Silverman, 2005). Overall, the sample for this study included 75 respondents.

### **3.5 Sampling techniques**

There are two types of sampling, random sampling and non-random sampling (Kothari, 2004). This study employed both random sampling and non-random sampling techniques. These aspects are clarified below.

#### **3.5.1 Random sampling technique**

This is the type of probability sampling that potentially affords every member of the population an equal chance of inclusion into sample (Silverman, 2005). Specifically, the study used systemic sampling approach which deemed to be appropriate because it facilitated the selection of study sample using the CHF members list. In this case sampling involved the selection of every 2<sup>nd</sup> name on the CHF members list. The process continued until a sample of 65 was reached. Using systematic sampling, the investigator was able to drop the respondents who were unwilling to participate in the study and hence administered the questionnaire to the willing respondents.

### **3.5.2 Non-random sampling**

This is the type of sampling whereby samples are gathered in the process that does not give all individuals in the population equal chances of being selected. It is normally based on the subjective judgment of the researcher. A non-probability sampling approach used was purposive sampling.

This is a type of non-probability sampling method in which sampling procedure adopted does not afford any basis for estimating the probability that each element in the population has equal chance of being included in the sample (Raj, 2002). In purposive sampling respondents are chosen because of certain characteristics deemed relevant to the study (Dooley, 1984). This sampling approach was used to select the interview sample based on participants' potential to provide necessary information to address the research questions. As already stated, the interview sample involved ten that included: nine health care providers (doctors and nurses) and one hospital secretary at the case study (See Table 3.2). Purposive sampling was appropriate since it enabled the investigator to have a control over the sample by including only the respondents met the criteria set by the investigator. That means the people are better placed and likely to provide relevant information for the study including information on the availability of services and experiences with the responsiveness of service providers and quality of services offered.

## **3.6 Data collection methods**

This section describes the methods used to collect data. The study employed multiple sources of data collection. These are described below.

### **3.6.1 Primary sources**

The sources of primary data for this study included questionnaire and interview as elaborated below:

### **(i) Questionnaire**

This is a method that uses a set of pre-prepared questions for collecting data from the respondents (Rwegoshora, 2006). Questionnaire for members of CHF attached as Appendix (i) were used to collect opinions on the outcome of CHF on the members' access to health care from 65 members of SUACHF. Unlike interview, questionnaire enabled the investigator to reach many respondents in relatively short period of time and at less cost (Bailey, 1994).

Questionnaires are not perfect as they may be vulnerable to low response rate. To overcome this limitation, simple questionnaire which was well edited was used and was pre-tested before being used in the actual data collection phase.

### **(ii) Interview**

This is a two way conversation between an investigator and an informant, initiated for the purpose of obtaining relevant information from the interviewee (Krishnaswami, 2003). Interview with ten people that included five doctors, four nurses and one hospital secretary was used to collect detailed data on the impact of CHF on members' access to health care. Unlike questionnaire, interview enabled the investigator to engage small number of respondents since involving a large number of the respondents would have not resulted in collecting in depth information on performance of CHF and also its outcome on members' access to medicare (Kothari, 2004). An interview guide (see Appendix ii) was used to carry out interviews to the selected categories of respondents (see Table 3.2).

### **3.6.2 Secondary sources**

Secondary source is referred as a source of data that a researcher uses readymade data (Kothari, 2004). The study reviewed different secondary sources: health policies, journals, books and other theses. These documents included the National Health Policy, health financing mechanisms, Community Health Fund Act and SUA

Health Policy. Also data from secondary sources were obtained from different books, electronic media, publications and articles.

Although secondary sources may be outdated, inaccurate and misleading, to overcome the limitations, data from other sources were used to challenge documentary data and also the investigator observed the use of documents selectively and critically.

### **3.7 Data analysis**

Data analysis as defined by Kombo and Tromp (2009) refers to examining what has been collected in research and making deduction and inferences. Also Patton (1987) indicated that during data analysis three things happened: data organized; reduced; themes identified and linked. There are two main types of data analysis which are qualitative and quantitative data analysis. Quantitative data analysis technique involves the use of tables, charts where the figures are computed using percentages and reported in summary results in numerical terms which are given with a specified degree of confidence (Glaser and Strauss, 1967). All quantitative techniques fall broadly under the umbrellas of mathematical, statistical, or programming based techniques and each has their own benefits and drawbacks.

Qualitative data analysis has been defined as the analysis of data which seeks to organize and reduce the data gathered into themes or essences, which in turn can be fed into descriptions, models and chosen theories (Miles and Huberman, 1994). It is also defined as the method used in collecting data and analysing them rather than testing a predicted explanation (Glaser and Strauss, 1967). Techniques of qualitative data analysis as explained by Morrill et al (2000:521) includes: documentation; conceptualization; coding and categorizing; examining relationships and displaying data; authenticating conclusions and reflexivity.

In this study, both qualitative and quantitative analyses were used. Qualitative analysis was derived from the interview and documentary resources whereby

interview and documentary transcripts were reviewed and recurring on common themes (in relation to outcome of CHF on members' access to health care) identified (Patton, 2000). Finally, major patterns and segments of data were merged from larger themes that allowed conclusion to be made about outcome of CHF on members' access to health care services. In addition, direct quotes from the interview were used to capture respondents' own experiences and feelings with regard to the outcome of CHF on members' access to health care.

Quantitative analysis involved the analysis of questionnaire data that were analyzed by using descriptive statistics (computer software of statistical package for social science (SPSS) and summarized in relevant frequency table. The descriptive statistics allowed the researcher to quantify outcome of CHF on members' access to health care at SUA.

### **3.8 Validity and reliability of the study**

The purpose of this section is to describe the techniques used to the reliability and validity of the study. The section is divided into two parts. The first part describes approaches used to ensure the reliability of the study. The second part presents ways used to ensure validity of the study.

#### **3.8.1 Reliability of the study**

Reliability refers to the consistence of the measurement technique (Kothari, 2004). Bhattacharjee (2012) argued that reliability is how similar results would be if another researcher conducted the same research in another place and time. Different considerations were used in order to ensure the reliability of this study:

First, clear descriptions of the objectives and research questions were provided so as to provide detail on the contexts in which data were collected so the readers can understand the implied descriptions (Porter, 2006). Second, the researcher clarified the research process to show how research was carried through describing the conceptual framework, study samples and sampling procedures, data collection and

analysis procedures (Ritchie, 2003). The third attempt involved peer review by providing summaries to other persons so as to improve the reliability of the qualitative data (Silverman, 2006). The fourth aspect taken into account to improve reliability of the study was observing recommended protocols in preparing field notes, managing documentary data and transcribing the naturally occurring (interview) data, which enhanced the quality of the data collected (Ritchie, Spencer & O'connor, 2003).

### **3.8.2 Validity of the study**

The term validity refers to the conceptual and scientific soundness of the research study or investigation and the primary purpose of all forms of research is to produce valid conclusions (Festinger, 2005). To the interpretive paradigm (qualitative research) proponents, it refers to the trustworthiness, credibility or how truthful the research results are (Johnson, 1997; Yin, 2003). Several approaches were used to ensure the validity of the study:

First, triangulation of data collection methods was employed including questionnaire, interview and documentary review. This facilitated the analysis of data for the study through comparing the validity of findings from multiple sources of evidence and searching for convergence (Creswell, 2005). Second attempt was that, the conclusions reached were based on data collected from the respondents. This reduced researcher's bias (Bailey, 1982). Third, appropriate samples and methods of sampling and data collection were used to enhance trustworthiness of the findings (Calder, 1996). Fourth attempt included the use of relevant literature to construct the conceptual framework so as to enable the collection of relevant data for the study (Silverman, 2005). Also appropriate methods of data collection and data analysis were done in accordance to procedures recommended in literatures.

### **3.9 Ethical considerations**

Research requires an investigator to observe ethical conventions of field research since they have consequences for the respondents, outcome of the research and not least, for the researchers themselves. Punch (1998) warns investigators who may “imbibe a false view of the research process as...” (pp. 157-68) unethical and urges them to pay attention to issues leading to ethical research. This section describes the ethical considerations that were adopted during this study.

First, the permit for entry to the field site was sought. This was through writing application letter to the management of SUA by explaining the purpose of the study (Silverman, 2006). Seeking entry permission established rapport and acceptance of the investigator by the target institution, which enhanced the chances of cooperation during data collection. Second, informed consent of participants to participate in the research was secured, and they were made to understand that their participation was voluntary and that they could withdraw from the study at any time of their choosing (Lewis, 2003). Third, the respondents were fully informed as to what their participation in the research entailed. Fourth, the identity of the participants was concealed to protect them from harm because of the disclosure of the information and this was done by not disclosing the names of the participants in the report. Fifth, this report will be made available to the relevant bodies and audiences including the management of SUA.

## CHAPTER FOUR

### RESULTS AND DISCUSSION OF FINDINGS

#### 4.1 Introduction

This chapter presents the data collected and discusses the findings in relation to the objectives and questions of the study. The chapter is divided into two parts. The first part presents the findings on the demographic characteristics of the respondents of the study. The second part presents results and analysis of the findings with respect to the research objectives and attempts to answer the associated research questions.

#### 4.2 Demographic characteristics of respondents

The demographic characteristics of respondents examined were gender, age, and level of education. These features are essential because they may suggest the possible reasons for the responses from the participants.

##### 4.2.1 Respondents distribution by sex

The purpose of obtaining data on the basis of sex was to gain the insights to determine the participation in CHF between male and female employees and other members of SUA community. The findings in (Table 4.1) show that forty (61.5%) respondents were males and twenty five (38.5%) were females.

**Table 4.1 Respondents distribution by sex**

---

| <b>Sex</b> | <b>Frequency</b> | <b>Percent</b> |
|------------|------------------|----------------|
| Male       | 25               | 38.5           |
| Female     | 40               | 61.5           |
| Total      | 65               | 100.0          |

---

Source: Questionnaire data (2015)

These findings suggest that the membership of males to CHF was somewhat higher than that of females. This result is not surprising given the reality that the number of employees tends to be higher than females both in private and public organization.

#### **4.2.2 Respondents distribution by age**

The age of respondents was divided into four age groups; 18-29, 30-49, 50-59 and 60-above. The findings (See Table 4.2) indicate that majority of the respondents were aged between thirty and forty nine which constituted 30 respondents (46.2%), followed by 25 respondents aged 18-29 (38.5%). Ten respondents were aged between 50 and 59 (15.3%), while no respondents (0%) were 60 years or older.

**Table 4.2 Respondents distribution by age**

| <b>Age group</b> | <b>Frequency</b> | <b>Percent</b> |
|------------------|------------------|----------------|
| 18-29            | 25               | 38.5           |
| 30-49            | 30               | 46.2           |
| 50-59            | 10               | 15.3           |
| Total            | 65               | 100.0          |

Source: Questionnaire data (2015)

The findings in Table 4.2 suggest that all respondents were adults and capable of expressing their experiences with regard to access to health care under SUACHF. It is also a case that adults are likely to take health care matters particularly accessing quality health care for their own sake and of their families.

#### **4.2.3 Respondents distribution by level of education**

The level of education of respondents was categorized into four; Diploma, Bachelor degree, Master Degree and Doctor of Philosophy (PhD). Findings (See Table 4.3) show that ten respondents (15.4%) had attained diploma level, forty (61.5%) had attained bachelor degree, ten (15.4%) had attained Master Degree and five (7.7%) attained Doctor of Philosophy (PhD).

The findings suggest that the respondents were sufficiently educated and therefore they were in a position to assess performance of CHF against their expectations including whether they adequately accessed health care services under CHF considering their high level of education and exposure.

**Table 4.3 Respondents distribution by level of education**

| <b>Education level</b>     | <b>Frequency</b> | <b>Percent</b> |
|----------------------------|------------------|----------------|
| Diploma                    | 10               | 15.4           |
| Bachelor degree            | 40               | 61.5           |
| Master degree              | 10               | 15.4           |
| Doctor of Philosophy (PhD) | 5                | 7.7            |
| Total                      | 65               | 100.0          |

Source: Questionnaire data (2015)

### **4.3 Results and analysis**

This section presents and analyzes the data from the field in attempt to address the two objectives of the study presented in the first chapter of this dissertation. The analysis starts with the first objective followed by the second objective.

#### **4.3.1 Assessment of availability of health services under CHF**

The purpose of this section is to present the data collected and discuss the findings on the availability of health services under CHF. Specifically, the section addresses the first objective, which was *to assess the availability of health services under CHF*. The associated questions were *what health care services are available and provided to CHF members?* As described in the conceptual framework of the study, addressing this objective involved a number of indicators of availability of health care services including: diagnostic health services, ambulatory service and maternity and child health care.

a) **Diagnostic services**

These are medical services that include the diagnosis of blood, specialized imaging and radiology. The study sought to establish whether a full range of diagnostic services covering for pathology, geriatric, pediatric, infectious and non-infectious diseases, cardiovascular, diabetic and hepatic were available at SUA health centre and made available to the members of SUACHF. Interview with the senior medical doctor on the availability of diagnostic services revealed diagnostic services are available and the members of SUACHF have access to them. To clarify more, the senior medical doctor stated:

*...SUACHF has no limit on diagnostic services coverage. It covers two types of diagnostic services: basic and specialized diagnostic services. These include: geriatric, pediatric, infectious, non-infectious, cardiovascular, diabetic, hepatic, screening for cervical and breast cancers... even if a member of CHF requires diagnostic services that are not present at our health facilities, he is referred to other hospitals that are in contract with SUACHF (Interview, 28/05/2015).*

Also the hospital secretary supported the above claim by saying:

*Diagnostic services are part and parcel of SUACHF's health services package and the good thing about our scheme is that, it does not have limit on diagnostic services. Speaking of the limitless of SUACHF on diagnostic services, it means all the diagnostic services carried at our health units are available under the health fund (Interview, 28/5/2015)*

Another medical doctor supporting the statements of the other two respondents above, he said:

*The good thing about SUACHF is that, it covers all the diagnostic services that are provided in our health units that is SUA health centre and Mazimbu hospital. So the members have the ability to access all diagnostic services that may be specialized or basic diagnoses (Interview, 28/5/2015)*

Similarly, questionnaire data supported the interview data that SUACHF covers diagnostic services. In response to a question on whether diagnostic services were available at SUACHF forty five members (69.2%) agreed that all diagnostic services were available and provided to members of SUACHF. Twenty members (30.8%) commented that not all diagnostic services were available under SUACHF.

**Table 4.4 Members’ response on the availability of diagnostic services**

| <b>Responses</b>    | <b>Frequency</b> | <b>Percent</b> |
|---------------------|------------------|----------------|
| Yes, all Covered    | 45               | 69.2           |
| No, not all covered | 20               | 23.1           |
| Total               | 65               | 100.0          |

Source: Questionnaire data (2015)

Data in Table 4.4 shows that SUACHF covers all the available diagnostic services at the health centre to its members. The findings are consistent with WHO’s (2003) study on UMASIDA in Tanzania which revealed that, UMASIDA, a community health fund for self-employed covered the laboratory services and made available to its members to ensure its members access diagnostic services. The findings suggest that, the diagnostic services were available since SUA health centre is equipped with modern diagnostic facilities for diagnosis of geriatric, pediatric, infectious and non-infectious, cardiovascular, diabetic and hepatic (SUAHEP, 2013). The findings further suggest that, some members said that not all diagnostic services are available under CHF. Some of the diagnostic services that are not available under SUACHF are optical (refraction) and allergy diagnosis services. The absence of these diagnostic services is the result of the absence of the optician (specialist for eyes diseases) as well as the absence of the specialist for allergies at SUA health centre. Even when the members seek for these diagnostic services to other health centres contracted with SUACHF, they are unable to access them since they are not part of the SUACHF’s benefit package.

This makes a difference from the National Health Insurance Fund (NHIF) which covers the refraction diagnosis to all the beneficiaries of the fund (National Health Insurance Fund [NHIF], 2012).

**b) Presence of ambulatory service**

An ambulatory service is a medical service which provides transport alongside first aid care, to those in need of urgent medical care, with the goal of satisfactorily treating the presenting conditions, or arranging for timely removal of the patient to the next point of definitive care. The study aimed at finding out as to whether ambulatory service is part of the benefit package of SUACHF. Questionnaire data revealed that majority of members of SUACHF have agreed that ambulatory service is covered under the scheme (SUACHF) (see Table 4.5).

**Table 4.5 Response on the presence of ambulatory service**

| <b>Response</b> | <b>Frequency</b> | <b>Percent</b> |
|-----------------|------------------|----------------|
| Available       | 40               | 61.5           |
| Not available   | 25               | 38.5           |
| Total           | 65               | 100.0          |

Source: Questionnaire data (2015)

Data in Table 4.5 shows members’ response on the presence of ambulatory services under CHF. The findings show that forty (61.5%) members of SUACHF have agreed that ambulatory service is definitely available and covered under the health fund and it is always provided in 24 hours in case of emergencies.

Indeed the interview with one of the medical doctors revealed that SUACHF covers ambulatory services as part of health services provided at SUA health units. As well as one of the nurses interviewed claimed, “...*SUACHF has gone beyond the design of CHF as it is in CHF act of 2001 which stated that CHF will cover preventive and*

*curative health care services by including it in the package of health care services to be covered under SUACHF”*

Also another medical doctor interviewed supported the findings by saying:

*A member of SUACHF is entitled to the ambulatory services in case of emergencies and the ambulatory service is provided in 24 hours for emergency cases and not for other purposes whereby in the ambulance normally there is a nurse/technician/clinician for handling the emergence and the first aid kit (interview, 17/5/2015)*

The above findings suggest that, SUACHF has gone beyond the suggested benefit package that was stipulated in CHF Act of 2001 that the benefit package of health services that is covered by CHF is curative and preventive health service. When senior medical doctor was asked how members would access ambulatory service when an emergency occurs at night, the senior medical doctor revealed that, there are telephone numbers that are available all the time for ambulatory services. Moreover, the findings are supported by Burns (2006) that some local authorities such as Rombo, Mwanza and Igunga have gone beyond the design of CHF benefits and WHO (2007) ,who revealed that Health Plus Community (HPC) health fund scheme in Philippines, designed the benefit package that included ambulatory care to its members and not only the preventive and curative health care services.

#### **c) Availability of maternity and child health care**

The interview with the senior medical doctor showed that maternity and child care is also among the health care services covered and provided to the members of SUACHF. When probed to clarify, the medical doctor said:

*Maternity and child health care is among the essential health care services as provided in the National Health policy of 2003. Being an essential health care service, SUACHF has included it in the health care package. Therefore members (women) of SUACHF have full access of this service. Moreover,*

*SUACHF has improved even the physical amenity whereby the scheme provided loan to Mazimbu hospital for the expansion. The expansion was the maternal clinic and therefore, there is a separate place for maternal health care (interview, 12/5/2015).*

Hospital matron in endorsing doctor's prospect, stated:

*...off course, SUACHF does cover maternity and child health care. The services provided under maternity and child health care include: ante natal care, family planning, labour and delivery care, emergency obstetric care, new baby born care, growth and monitoring and also immunization against different diseases such as polio, hepatitis B and measles (Interview, 12/5/2015).*

The findings showed that maternity and child care were covered under CHF. It was included in health fund to support the Ministry of Health of Tanzania as well as the millennium goal number five on fighting against the deaths of pregnant mothers as well as children. Literature for instance, Galea (2009) supported that, community health insurance in Liberia has been in hand and hand with the ministry of health by including maternity and child health care in its health care services package in health fund as the campaign to reduce the mortality and morbidity.

#### **4.3.2 Assessment of the quality of the health services under CHF**

The second objective was to assess the quality of health care services under CHF. With respect to this objective, the associated research question was *how satisfied are the CHF members with the quality of health care services provided to them?* The quality of health care services under CHF was assessed by focusing on the following indicators as established in the conceptual framework (Section 2.9, part B):

a. **Adequacy of qualified and competent health personnel**

During the interview with the senior medical doctor, the informant reported that the health facility have a good number of qualified and competent health staff in different fields. Data in table 4.6 shows the number of medical staff available and their qualifications.

**Table 4.6 Medical staff and their qualifications at SUA health facility**

| <b>Rank</b>                      | <b>Number</b> | <b>Qualification</b>                  |
|----------------------------------|---------------|---------------------------------------|
| Medical officer specialist       | 03            | Doctorate degree                      |
| Principal medical officer        | 05            | Medical degree (Doctor of medicine)   |
| Medical officers                 | 15            | Medical degree (Doctor of medicine)   |
| Senior assistant medical officer | 10            | Advanced diploma in clinical medicine |
| Assistant medical officer        | 08            | Advanced diploma in clinical medicine |
| Clinical officers                | 05            | Diploma in clinical medical           |
| Dental officer                   | 01            | Degree(Doctor in dental surgery)      |
| Assistant dental officer         | 01            | Diploma in dental therapist           |
| Laboratory technicians           | 07            | Diploma in medical laboratory         |
| Nursing officers                 | 17            | Diploma in nursing                    |
| Nursing assistant                | 12            | Certificate in nursing                |
| Training nurse/midwives          | 25            | Nursing certificate                   |

Source: SUA administrative staff appraisal report (2015)

When probed to clarify the qualification and competence of the health personnel, the hospital secretary had the following to say;

*Our health facilities have health personnel who are competent and qualified as they are recruited basing on the required qualifications and they are actually competent. We also, have health staffs that are competent in some special cases. These include the cardiologist (specialized in heart disease), gynecologist (special for women) and dermatologist (specialized in skin) but we do not have eye specialist (optician) (Interview, 28/05/2015).*

Regardless of having qualified and competent health personnel, there are still gaps on the adequacy of them (health personnel) especially the specialists. When asked for more clarification on the adequacy, the hospital secretary said:

*Inadequate health personnel especially the specialists is the common problem in many hospitals in our country, SUA and Mazimbu health centre included. We only have three specialists who serve in both two places. Therefore, there are days which a specialist is available at SUA health centre and the other day at Mazimbu hospital (Interview 28/05/2015).*

The findings suggest that there is still a gap on the medical staffs especially the specialists as well as the cadre of laboratory technicians. The findings is consistent with the report of health sector strategic plan II for 2009-2015 (2002) which stated that there was an increase of number of medical doctors but there was less number of specialists between 2009-2013.

#### **b. Responsiveness of health personnel**

Responsiveness of health providers was another indicator introduced in the conceptual framework to assess the quality of health care services under CHF. The responsiveness of health personnel was assessed based on three indicators: (a) patient handling (b) reception of patients (c) confidentiality of health information of patients. The description of each indicator is presented as follows:

**(i) Assessing Patient handling**

The questionnaire data revealed that 69.2% of the members of SUACHF are satisfied with the handling of patients, 23.1% are dissatisfied and 7.7% are not satisfied with the handling of patient from the health personnel when seeking health care services at the health facility.

**Table 4.7 Members' satisfaction on patient handling**

|       |                | <b>Frequency</b> | <b>Percent</b> | <b>Valid Percent</b> | <b>Cumulative Percent</b> |
|-------|----------------|------------------|----------------|----------------------|---------------------------|
| Valid | Satisfied      | 45               | 69.2           | 69.2                 | 69.2                      |
|       | Less satisfied | 15               | 23.1           | 23.1                 | 23.1                      |
|       | Not satisfied  | 05               | 7.7            | 7.7                  | 100                       |
| Total |                | 65               | 100.0          | 100.0                |                           |

Source: Questionnaire data (2015)

Data in Table 4.6 suggest majority (69.2%) of the members of SUACHF are satisfied with the way patients are handled by the health personnel. The findings indicated that health personnel handle the patients in an expected way (with attention, care) when seeking for health care services. However, 7.7% of the members of SUACHF are not satisfied with the handling of patients. When asked the reasons for dissatisfaction, the mentioned reasons were: some health providers are not careful when attending the patients; admitted patients are left alone at night while they need assistance and some health providers ignore the admitted patients when requesting for assistance. The findings are challenged by Ahmed-Refat (2012) who emphasized that one of the elements of responsiveness in health system is a prompt attention when handling patients.

## ii. Assessing Reception (Receiving patients) of the patients

Respondents were asked to weigh the degree of satisfaction with reception section. The findings (Table 4.7) indicate that members of SUACHF are not satisfied with the reception section when visiting health centre.

**Table 4.8 Members' satisfaction on reception of the patients**

| Satisfaction level | Frequency | Percent |
|--------------------|-----------|---------|
| Satisfied          | 10        | 15.4    |
| Less satisfied     | 05        | 7.7     |
| Not satisfied      | 50        | 76.9    |
| Total              | 65        | 100.0   |

Source: Questionnaire data (2015)

Data in Table 4.7 show that 76.9% are not satisfied with the reception, 7.7% are less satisfied with the reception while (15.4%) are satisfied. The reasons mentioned for dissatisfaction with the reception were: little attention, use of abusive language by some health personnel, inequality in a sense that others are attended due to the personal relationship and the status they have and another reason was that, some health providers become busy with personal stuffs leaving behind the patient needing the service and long waiting time to be attended as one of the members of SUACHF said during the meeting of the members of SUACHF and the management of SUACHF :

*... Some of the health personnel at our health units are humor, gentle and generous but there are some who use abusive language especially the nurses. You might find that, you have gone for medical care at the health unit, expecting to be received well but it is the vice versa. Also some of the nurses attend the person due to personal relationship or status.*

The findings revealed that 76.9% members are not satisfied with the reception section. The reasons identified for dissatisfaction were: some health providers use abusive and harsh language, some health providers are not humor, not good listeners, receive and attend people whom they know or have a high status and another reason mentioned was long waiting at the reception window to be attended. The findings are consistent with observations that were reported by Allegri (2006) on CHF in Burkina Faso that, long waiting, excessive prescribing and preferential treatment depending on patient's economic status were practiced by the health personnel when members are seeking for health care. Also, Basaza (2008) supported the findings by reporting that among the problems that face members of CHF in Uganda is long waiting for health services at the reception window.

Indeed the interview data confirmed the above findings by revealing that, there had been some reported complains from the beneficiaries on how some of the health providers handle patients.

During the interview, one of the medical doctors claimed:

*Of course there are already complaints from some of the members of SUACHF concerning the responsiveness of some of health personnel that they use abusive language to the patients. Indeed that is not one of the medical ethics, health personnel has to be a good listener, caring and gentle to the people needing health care services. To overcome that, the claimed health personnel were held accountable for their actions and we insisted the members to report to the management whenever facing such issue (interview, 17/6/2015).*

The findings suggest that, members are not satisfied and there had been some complains on some health providers that: they are not humor, caring and are not paying attention to the patients and also there is a use of abusive and harsh language. Moreover, the senior medical doctor was asked on what was done to rectify the challenge and stated that, the reported health providers were made accountable to

their actions by given the warning letters and also encouraged the members to report to the management once such issue occurs again. The findings are in consistent with Kamuzora and Gilson (2007) who reported that, among the factors limiting CHF implementation was unresponsiveness, maltreatment and abusive languages to patients practiced by some health staff.

### iii. Assessing Confidentiality of the health information

Confidentiality was another indicator for assessing the responsiveness of health personnel. Literature, for example, Ahmed-Rafat (2012) suggests that one of the elements of responsiveness of health staffs is confidentiality. Questionnaire data revealed that 53.8% of the members of SUACHF are not satisfied with the confidentiality of the health information of the patients. Data in table 4.7 revealed that 53.8% of the members are not satisfied with the confidentiality of health information of the patients, 38.5% are less satisfied while 7.7% are satisfied.

**Table 4.9 Response on members' satisfaction with confidentiality**

| Satisfaction level | Frequency | Percent |
|--------------------|-----------|---------|
| Satisfied          | 05        | 7.6     |
| Dissatisfied       | 35        | 53.8    |
| Less satisfied     | 25        | 38.5    |
| Total              | 65        | 100.0   |

Source: Questionnaire data (2015)

Data in Table 4.8 suggest that members of SUACHF are not satisfied with the confidentiality of health status of the patients. This implies that some health personnel go against the medical ethics on the confidentiality. The findings on the confidentiality of the health information of the patients are supported by one of the members of SUACHF who claimed the following during the meeting of the SUACHF members on 17<sup>th</sup> June 2015:

*...there are some doctors who are not faithful whereby they disclose the information of the health status of the patients they attend to their friends or close people. Personally, I have never heard of my health status information but I have heard of other people's health status information especially of the ones who are HIV positive. This has made us choose health provider that we trust and others have decided to seek health care elsewhere.*

The findings suggest that members of SUACHF are not satisfied with the confidentiality of the patient's health information since some of the health personnel disclose the status of the patients they attend. The findings above is inconsistent with the SUA Health Policy of 2013 section 3.3 (3.3.2.7) which recommends that the confidentiality of the health status of an individual is an ethical matter should be protected and may only be disclosed to health professionals for treatment or legal purposes. Also Ahmed-Rafat (2012) noted that information relating to the patient and his illness should not be divulged during the course of care except in specific contexts.

#### **c. Adequacy of key medical equipment**

Medical equipment are instruments that are designed to aid in the diagnosis, monitoring or treatment of medical conditions. The study assessed the key medical equipment including diagnostic equipment; treatment equipment, life support equipment, medical monitors, and medical laboratory equipment (see Table 4.9).

**Table 4.10 Key medical equipment available at SUA health facilities**

| <b>Diagnostic facilities</b>      | <b>Quantity</b> | <b>Function</b>   |
|-----------------------------------|-----------------|---|
| a) Digital x-ray machine          | 03              | For diagnosis of internal parts of the body               |
| b) General imaging machine        | 03              | For radiology diagnosis                                   |
| c) Electro-cardiograph machine    | 02              | For recording electrical changes/activity of the heart    |
| d) Hematology machine             | 03              | For blood cells test and platelet enumerations            |
| e) Stress cardiology test machine | 02              | For stress test for heart diseases                        |
| f) Bio-chemistry machine          | 03              | For processing samples such as DNA in hospital laboratory |
| g) Normal hospital beds           | 35              | For admitting patients                                    |
| h) Examination beds               | 05              | For examination of the patients                           |
| i) Cardiac beds                   | 04              | For examination of people with heart problems             |
| j) Dental chair                   | 02              | For positioning of the dentist for ergonomics             |

Source: SUA health centre inventory report (2015)

During interview with the senior medical doctor revealed SUA health facilities are equipped with different medical equipment but the inception of SUACHF has led SUA health centre through provision of loan to procure medical equipment that were not available and others were available but of poor quality. Therefore, SUACHF has led to the procurement of medical equipment that of good quality.

When probed for clarification, the senior medical doctor stated the following;

*SUACHF has facilitated our health facilities to purchase different medical facilities of high quality. The scheme has provided SUA health units a loan of 400 million Tshs for the purchase of medical facilities. These include; two Bio-chemistry machines, two hematology machines and one Electro-cardiograph. We are also expecting by July this year (2015), to purchase a ventilator, stress cardiology test machine and a digital x-ray machine to enhance the community obtain quality health services (interview, 02/6/2015).*

The findings suggest that the inception of SUACHF has enabled SUA health units to increase medical equipment through providing loan to SUA health centre for procuring the needed medical equipment so as to ensure quality health care to its members. The procured equipment included the digital x-ray machine, two bio-chemistry machines, two hematology machines, cardiac bed, ventilator, stress cardiology test machine and one electro-cardiograph machine. It was noted that, before the inception of SUACHF there had been shortage of medical equipment and even the available ones were of a poor quality such as the x-ray machine, hospital beds and examination beds. The reason for inadequate and poor quality of medical equipment mentioned by the senior medical was shortage of fund provided by the government for financing health care services as the result the community received poor quality health care. Therefore, the introduction of SUACHF has led to the increase of the key medical equipment. The findings are supported by Shaw (2002) that CHF has facilitated the purchase of different medical facilities such as microscopes and improved availability and supply of important equipment in many hospitals. Similarly, Kapinga and Kiwara (1999) revealed that in Singida rural district hospital, CHF has recorded a major achievement in the procurement of basic medical equipment within the first year of its establishment.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents summary of the study on the outcome of SUACHF on members' access to health care which was carried at SUA, conclusion and recommendations based on the presented findings in chapter four.

#### 5.2 Summary of the study findings

The study aimed at investigating the outcome of CHF on members' access to health care at SUA as a case study. Specifically the study based on two objectives:

##### **a) Assessment of the availability of health services under CHF**

This was the first objective for investigating the outcome of CHF on members' access to health care and the associated question was *what health services are available and provided to the members of CHF?* The findings show members of SUACHF are covered with all the health services that are provided at SUA health units. The assessed health care services covered by SUACHF included: Maternity and child health care whereby members are insured with all the health care services that are under the maternity and child health care. These include labour and delivery care, new born care, emergency obstretic care, ante natal care, family planning, growth monitoring and immunization.

Another health care service provided to the members is ambulatory service, which is provided in case of emergency. The services is of twenty four hours (24 hours). On top of that, the ambulatory service always includes the first aid kit and the medical escort may be nurse or clinician or technician. The ambulatory service is provided from the point where the patient is to the health centre or refferal hospital. Moreover, diagnostic service is also provided to the members. The diagnostic service under SUACHF covers both basic and specialized diagnosis.

## **b) Assessment of the quality of health care services under CHF**

The study aimed at assessing the quality of health care services that are provided to the members of CHF. The findings revealed health care services provided to the members of SUACHF are of good quality since SUACHF has facilitated the increase of medical equipment of high quality such as digital x-ray machine, ventilator, faborator and patient monitor. However, on the side of responsiveness of health, majority of members of SUACHF are not satisfied with the responsiveness of some health personnel especially on the reception section and also on the language used by the health pearsonnel when seeking for health care services. On the other hand the findings show that there are qualified medical personnel. Nevertheless, the number of health personnel especially medical specialists is still not enough compared to other cardres. Also the findings show that there is improvement of the quality of health care services since the inception of SUACHF as it bacame the financing mechanism for health care services after government's inability to fully finance the health services.

## **5.3 Conclusion**

It is therefore concluded that, the outcome of CHF on members' access to health care particularly on the quality health care and availability of health care services has the great impact on the members. The quality of health care services has improved and also is high compared to the time the scheme (SUACHF) was not introduced in the aspects of: medical equipment and health providers. Also SUACHF has covered the essential health care services and ensure the availability of health care services to its members, it has provided loan to the health centre for procuring medical equipment, expansion of the post hospital and renovation of SUA Health centre.

Through those improvements, members have positive attitudes to the program because their expectations were met after its inception compared with before its existence.

Despite these achievements on the quality health care and availability of health care services, the scheme still faces challenges on its implementation and one of the challenges is understaffing. The number of the medical specialists is still low as there are only three medical specialists: cardiologist, gynecologist and haematologist. On the other hand, the scheme still faces challenge on the responsiveness of health providers as some of the health providers discloses patient's health status especially those living with HIV/AIDS. However, the mentioned challenges can be rectified accordingly and make the scheme more appealing.

#### **5.4 Recommendations**

In order to ensure smooth performance of SUACHF in the provision of health services to its members, the following recommendations are made:

##### **i. Training for the health personnel**

The scheme has to prepare and conduct training or workshop for the health personnel to increase their morale, skills and commitment especially when handling the needy. This will help to shape and increase their morale at work.

##### **ii. Increase of the health personnel**

The scheme can contribute on the supply of human resource especially specialists on different diseases that are very common. This can be through secondment of a specialist from another hospital or by recruiting.

##### **iii. Making health personnel accountable for their actions**

This is particularly to those who use harsh and abusive language to the patients needing health care services from them. Once reported to the management, the management has to surely make them be accountable to their action. To enable this, there should be the established punishment for such matters.

#### **iv. Maintaining confidentiality of the members' health status**

The confidentiality of health status of members has to be handled as it is supposed to be handled. Disclosure of the information has to be handled and whoever discloses the information has to be accountable for that.

#### **5.5 Area for further reasearch**

This study has touched upon just the outcome of CHF on members' access to health care. Further research needs to be conducted on:

- i. Comparative studies on the performance of CHF against other health insurance such as NHIF.
- ii. The impact of the scheme on the efficiency of hospital use, as well as its impact on availability of quality health care to members against non-members who use the hospital.
- iii. Extensive CHF performance measuring many variables.

## REFERENCES

- Adam, J. (2007). *Business research methodology*. Dar es Salaam: IFM.
- Adinma, E, Nwakoby, B. (2010). *Integrating maternal health services into health insurance scheme: effect on health care delivery*. Nigeria.
- Andersen, R.M., Rice, T.R. (2007). Changing the US health care system. *Jossey Bass pp. 187-190*.
- Asfaw, A. (2007). Impact of community health fund on the access to health care. *International Journal of Public Administration* (30): 813-833.
- Bailey, D. E. (1982). *A review of telework research: findings, new directions and lessons from the study of modern study*. U.S.A: Stanford University.
- Beraldes, C., Carreras, L. (2003). *Willingness to pay for community health fund card in Mtwara rural health district, Tanzania*. Spain: Medicines sans Frontiers.
- Bhattacharjee, A. (2012). *Social science research: Principles, methods and practices*. Florida: University of South Florida.
- Brien, S. (2008). *Implications for the Canadian approach to safety and quality in health care*. New York: Open medicine press.
- Buregyeya, E. (2008). Hiv risk behavior and work in Uganda: A cross sectional study. *East African Journal of Public health*, 5 (1): 43-48.
- Burns, M., Mantel, M. (2006). *Tanzania review of exemptions and waivers*. Soborg: Euro health group.
- Busse, R., Gericke, C. (2007). *Health financing challenges in high income countries*. Washington DC: World Bank.
- Calder, A. (1996). *American constructivism*. Paris: Frammarion Ltd.

- Carrin, G., James, C. (2003). *Reaching universal coverage via social health insurance: Key design features in the transition period*. Geneva: WHO.
- Cassel, A. (2005). Better health in developing countries. *Lancet*; Volume 352: 1777-1779.
- Chee, G. (2002). *Assessment of the community health fund in Hangang district, Tanzania*. Dar es Salaam: PHR plus.
- Cresswell, J. W. (2005). *Educational research: Planning, conducting and evaluating quantitative and qualitative research (2<sup>nd</sup> ed)*. Upper Saddle River, NJ: Prentice Hall.
- Criel, B., Van Dormael, M. (1999). Mutual health organizations in Africa and social health insurance systems: Will European history repeats itself? *Tropical Medicine & International Health*, 4(3): 155–159.
- Criel, B., Barry, A., & Von Roenne, W. (2002). *Voluntary health insurance*. Bwamanda, DRC. John Wiley & sons Ltd.
- Devadasan, N. (2007). *Indian community health insurance schemes provide partial protection against catastrophic health expenditure*. Mumbai: BMC Health.
- Donabedian, A. (1980). *Exploration in quality assessment and monitoring*. New York: Health administration press.
- Donabedian, A. (2003). *An introduction to quality assurance in health care*. New York: Oxford University press.
- Ekman, B. (2004). *Community-based health insurance in low-income countries: a systematic review of the evidence health policy plan* 19 (5): 249-270.
- Ensor, T., Pham, B. S. (2010). Access and payment for health care: The poor of Northern Vietnam. *International Journal of health planning and management*, 11(1): 69-83. England: University of York.

- Festinger, D., Marczyk, G. R. (2005). *Essentials of research design and methodology*. New York: New York state law publisher.
- Gravetter, F. J., Forzano, L.B. (2009). *Research methods for behavioral sciences, (4<sup>th</sup> ed)*. New York. Linda Schreiber-Ganster.
- Hardon, A. (1990). Planning for essential drugs: Are we missing the cultural dimension? *A Health policy and planning journal* 5(2): 182-85.
- Hsiao, W, Heller, P.S. (2007). *What should macroeconomists know about health care policy*. IMF.
- Huberman, M.A., Miles, M.B. (2002). *The qualitative researcher's companion*. London: Sage publication.
- Huber (2011). *How should we define health?* John Wiley & sons Ltd.
- International Labour Organization (2002). *Extending social protection in health through community based health organizations. Evidence and challenges: Discussion Paper*. International Labour Organization, Geneva: Switzerland.
- Jacobs, B. (2008). *Bridging community-based health insurance and social protection for health care-a step in the direction of universal coverage*. Senegal: Trop publishers.
- Kamuzora, P. (2006). *Factors influencing implementation of the community health fund in Tanzania*. Oxford University Press.
- Kothari, C. (2004). *Research methodology 2<sup>nd</sup> ed*. New Delhi: New Age International Publishers.
- Kwesigabo, G. (2012). Tanzania's health system and workforce crisis. *Journal of public health policy* (33): 35-44.

- Maluka, S.O & Bukagile, G. (2013). *Implementation of community health fund in Tanzania: Why do some districts perform better than others?.* John Willey & sons Ltd.
- Miles, M. B., Huberman, A.M. (1994). *Qualitative data analysis: an expanded source book.* London: Sage publishing.
- Mtei, G., Mulligan, J. (2007). *Community health funds in Tanzania: a literature review.* Dar es Salaam: Ifakara Health Research Center.
- Msuya, J. (2004). *Impacts of community health insurance schemes on health care provision in rural Tanzania.* Dar es Salaam: ZEF.
- Musau, S. (2002). *The Community Health Fund: Assessing implementation of new management procedures in Hanang district, Tanzania.* Bethesda: The Partners for Health Reform plus Project.
- MOH (1999). *Community health fund (CHF): design.* Dar es Salaam: URT.
- National Health Insurance Fund. (2011). *Community health fund.* Dar es Salaam: National Health Insurance Fund.
- Peters, D. H. (2002). *Better health systems for India's poor: Findings, analysis, and options.* Washington, D.C: The World Bank.
- Porter, M.E. (2006). *Redefining health care: creating value-based competition on results.* Harvard: Harvard business school publishing.
- Punch, K. F. (1998). *Introduction to social research: quantitative and qualitative approaches.* London: sage publication.

- Ranvishankar, N., Gubbins, P. (2009). Financing of global health: tracking development assistance for health from 1990 to 2007. *The lancet* 373: 2113-2132.
- Ritchie, J., Lewis, J. (2003). *Qualitative research practice: A guide for social science students and researchers*. London: Sage publications.
- Rwegoshora, R. (2006). *A guide to social science research*. Dar es Salaam: Mkuki na Nyota Publishers Ltd.
- Sanders, D., Chopra, M. (2005). Confronting Africa's health crisis; *BMJ*; 331, 755-758.
- Save the children. (2005). *User fees: paying for health services at the point of use*. London: Sage publishers.
- Shaw, R. (2002). *Tanzania community health fund: prepayment as an alternative to user fees*. Dar Es Salaam: Mkuki na Nyota Publishers.
- Sheuya, S. (2006). *Assessment of the Rungwe smallholder tea growers association and wakulima health fund programme*. Dar es Salaam: UCLAS.
- Shiffman, J. (2006). Redesigning the aid contract. *World development* 30(12): 2045-2056.
- Silverman, D. (2006). *Qualitative research: theory, method and practice*. London: SAGE Publication.
- Sokoine University of Agriculture. (2013). *SUA's health policy*. Morogoro: SUA.
- Tayie, S. (2005). *Research methods and writing research proposals*. Cairo: University of Cairo publishing.

- Tenkorang, D.A. (2001). *Health insurance for the informal sector in Africa: Design features, risk protection, and resource mobilisation*. CMH Working Paper Series, Paper No. WG3: 1
- United Republic of Tanzania. (2001). *The Community Health Fund Act*. Dar es Salaam: Government Printer.
- United Republic of Tanzania. (2003). *National health policy*. Dar es Salaam: Government Printer.
- United Republic of Tanzania (2011). *Health sector public expenditure review*. Dar es Salaam: Ministry of Health.
- Velley, H. (2006). *Building research and practice*. Willey: Weinheim.
- Wagsaff, A., Doorslaer, E. V. (2003). *Catastrophe and impoverishment in paying for health care*. New York: John Wiley & sons, Ltd.
- World Bank (1993). *World development report, investing in health*. New York: Oxford University Press.
- World Bank (1997). *Sector strategy for HNP*. Washington (DC): World Bank.
- World Bank (1997). *The World Bank annual report*. Washington DC: World Bank.
- World Health Organization (2000). *Health systems; measuring performance*. Geneva: WHO.
- World Health Organization (2006). *The World Health report: working together for health*. Geneva: WHO

## APPENDICES

### Appendix I

#### QUESTIONNAIRE FOR MEMBERS OF CHF

I am a student of Mzumbe University pursuing Masters of Public Administration (MPA). I am doing a study on the outcome of CHF on the delivery of quality health care at SUA health centre and Mazimbu hospital. The aim of the study is to investigate the impact of CHF on delivery of quality health care. I will be thankful if you would spare some time to fill in this questionnaire. Confidentiality will be observed for the information that will be provided here.

#### I. QUESTIONNAIRE FOR MEMBERS OF CHF

##### Instructions:

- Please put ✓ where appropriate

##### A. Personal characteristics

###### 1. Sex

| 1. Male | 2. Female |
|---------|-----------|
|         |           |

###### 2. Age (In Years)

| 1. 18-29 | 2. 30-49 | 3. 50-59 | 4. 60 and above |
|----------|----------|----------|-----------------|
|          |          |          |                 |

3. Level of education

|                      |  |
|----------------------|--|
| 1. Primary education |  |
| 2. Secondary         |  |
| 3. Higher education  |  |
| 4. other (Specify)   |  |

4. Occupation (Specify)

.....

**B: Outcome of CHF on members' access to health care**

- **Fill in the brackets the appropriate letter of the appropriate answer**

5. When did you join SUACHF?

- a. 1-3 years [     ]
- b. 4-6 years
- c. 7 and more years

6. Are you able to obtain all of the diagnostic services using SUACHF membership card?

- a. Yes [     ]
- b. No
- c. I don't know

7. Are the specialized medical personnel (specialists) available at the health facility?

- a. Yes [     ]
- b. No
- c. I do not know

8. What can you say about the quality of health services after the establishment of SUA CHF?

- a. Massive improvement [     ]
- b. Some improvement

- c. No improvement
  - d. Deterioration
9. Do you get health services from other hospital using SUACHF member's card?
- a. Yes [      ]
  - b. No
  - c. I do not know
10. If answered Yes in question 10, mention the hospitals where you can access health care using SUACHF card.

.....

.....

.....

11. Are you satisfied with the responsiveness of the health providers when seeking health care?
- a. satisfied [      ]
  - b. Less satisfied
  - c. Not satisfied
12. Which of the following sections of health services you are satisfied or not satisfied with the services they offer? Tick (✓) against.

| Section                           | Satisfied | Less satisfied | Not satisfied |
|-----------------------------------|-----------|----------------|---------------|
| Reception                         |           |                |               |
| Patient handling                  |           |                |               |
| Language used by health personnel |           |                |               |
| Confidentiality                   |           |                |               |

13. How do you rank health services from health providers?

- a. Very good [      ]
- b. Good
- c. Poor
- d. Average

14. How do you comment on the qualification of health staff at SUA's own facilities

- a. High [      ]
- b. Average/satisfactory
- c. Poor
- d. No idea

15. What diagnostic services are not available under SUACHF

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

16. Mention three challenges you face when accessing health care provided under SUACHF.

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

17. In your opinion, what can be done to improve the performance of SUACHF

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

18. Any other comments concerning SUA CHF?

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

☞ Thank you for your cooperation ☞

**INTERVIEW GUIDE FOR KEY INFORMANTS**

**A. Doctors and nurses**

**i. Medical facilities and equipment**

- How has CHF ensured the presence of the facilities and equipment?
- Are the maternal and child health care, diagnostic and ambulatory services available under SUACHF?
- How CHF has facilitated availability of diagnostic, maternal and child health care and ambulatory services?

**B. Hospital secretary**

**i. Competence and qualification of health providers**

- What are their qualifications?
- Their number?
- Their ranks?
- What category is missing?

**ii. Presence of medical facilities and equipments**

- Any role played by CHF to facilitate medical facilities and equipment?
- Mention some of the facilities and equipment that CHF has played part to ensure its presence/availability.

**iii. Responsiveness of the health providers**

- Any comment from the patients on the responsiveness of health providers?
- If any, how did you solve them?

**iv. Availability of health services**

- What health services are available and provided to the members of SUACHF?
- Any service covered beyond the stipulated design of CHF?